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STUDIES OF CHILDHOOD

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STUDIES OF CHILDHOOD

BY

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PREFACE.

THE following Studies are not a complete treatise on child-psychology, but merely deal with certain aspects of children's minds which happen to have come under my notice, and to have had a special interest for me. In preparing them I have tried to combine with the needed measure of exactness a manner of presentation which should attract other readers than students of psychology, more particularly parents and young teachers.

A part of these Studies has already appeared elsewhere. The Introductory Chapter was published in the *Fortnightly Review* for November, 1895. The substance of those from II. to VIII. has been printed in the *Popular Science Monthly* of New York. Portions of the "Extracts from a Father's Diary" appeared in the form of two essays, one on "Babies and Science" in the *Cornhill Magazine* in 1881, and the other on "Baby Linguistics" in the *English Illustrated Magazine* in 1884. The original form of these, involving a certain disguise—though hardly one of impenetrable thickness—has been retained. The greater part of the study on "George Sand's Childhood" was published as two articles in *Longmans' Magazine* in 1889 and 1890.

Like all others who have recently worked at

child-psychology I am much indebted to the pioneers in the field, more particularly to Professor W. Preyer. In addition to these I wish to express my obligations to my colleague, Dr. Postgate, of Trinity College, Cambridge, for kindly reading through my essay on children's language, and giving me many valuable suggestions; to Lieutenant-General Pitt-Rivers, F.R.S., and Mr. H. Balfour, of the Museum, Oxford, for the friendly help they rendered me in studying the drawings of savages, and to Mr. E. Cooke for many valuable facts and suggestions bearing on children's modes of drawing. Lastly, I would tender my warm acknowledgments to the parents who have sent me notes on their children's mental development. To some few of these sets of observations, drawn up with admirable care, I feel peculiarly indebted, for without them I should probably not have written my book.

J. S.

HAMPSTEAD,
November, 1895.

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STUDIES OF CHILDHOOD.

I.

INTRODUCTORY.

MAN has always had the child with him, and one might be sure that since he became gentle and alive to the beauty of things he must have come under the spell of the baby. We have evidence beyond the oft-quoted departure of Hector and other pictures of childish grace in early literature that baby-worship and baby-subjection are not wholly things of modern times. There is a pretty story taken down by Mr. Leland from the lips of an old Indian woman, which relates how Glooskap the hero-god, after conquering all his enemies, rashly tried his hand at managing a certain mighty baby, Wasis by name, and how he got punished for his rashness.[1]

Yet there is good reason to suppose that it is only within comparatively recent times that the more subtle charm and the deeper significance of infancy have been discerned. We have come to appreciate babyhood as we have come to appreciate the finer lineaments of nature as a whole. This applies, of course, more especially to the ruder sex. The man has in him much of the boy's contempt for small things, and he needed ages of education at the hands of the better-informed woman before he could perceive the charm of infantile ways.

One of the first males to do justice to this attractive subject was Rousseau. He made short work of the theological dogma that the child is born morally depraved,

[1] Quoted by Miss Shinn. *Overland Monthly*. January, 1894.

and can only be made good by miraculous appliances. His watchword, return to nature, included a reversion to the infant as coming virginal and unspoilt by man's tinkering from the hands of its Maker. To gain a glimpse of this primordial beauty before it was marred by man's awkward touch was something, and so Rousseau set men in the way of sitting reverently at the feet of infancy, watching and learning.

For us of to-day, who have learned to go to the pure springs of nature for much of our spiritual refreshment, the child has acquired a high place among the things of beauty. Indeed, the grace of childhood may almost be said to have been discovered by the modern poet. Wordsworth has stooped over his cradle intent on catching, ere they passed, the 'visionary gleams' of 'the glories he hath known'. Blake, R. L. Stevenson, and others, have tried to put into language his day-dreamings, his quaint fancyings. Dickens and Victor Hugo have shown us something of his delicate quivering heart-strings; Swinburne has summed up the divine charm of "children's ways and wiles". The page of modern literature is, indeed, a monument of our child-love and our child-admiration.

Nor is it merely as to a pure untarnished nature that we go back admiringly to childhood. The æsthetic charm of the infant which draws us so potently to its side and compels us to watch its words and actions is, like everything else which moves the modern mind, highly complex. Among other sources of this charm we may discern the perfect serenity, the happy 'insouciance' of the childish mind. The note of world-complaint in modern life has penetrated into most domains, yet it has not, one would hope, penetrated into the charmed circle of childish experience. Childhood has, no doubt, its sad aspect:—

> Poor stumbler on the rocky coast of woe,
> Tutored by pain each source of pain to know:

neglect and cruelty may bring much misery into the first bright years. Yet the very instinct of childhood to be glad in its self-created world, an instinct which with consummate art Victor Hugo keeps warm and quick in the breast of the half-starved ill-used child Cosette, secures for it a peculiar blessedness. The true nature-child, who has not become *blasé*, is happy, untroubled with the future, knowing nothing of the misery of disillusion. As, with hearts chastened by many experiences, we take a peep over the wall of his fancy-built pleasaunce, we seem to be taken back to a real golden age. With Amiel, we say: "Le peu de paradis que nous apercevons encore sur la terre est dû à sa présence". Yet the thought, which the same moment brings, of the flitting of the nursery visions, of the coming storm and stress, adds a pathos to the spectacle, and we feel as Heine felt when he wrote:—

> Ich schau' dich an, und Wehmuth
> Schleicht mir ins Herz hinein.

Other and strangely unlike feelings mingle with this caressing, half-pitiful admiration. We moderns are given to relieving the strained attitude of reverence and pity by momentary outbursts of humorous merriment. The child, while appealing to our admiration and our pity, makes a large and many-voiced appeal also to our sense of the laughter in things. It is indeed hard to say whether he is most amusing when setting at naught in his quiet, lordly way, our most extolled views, our ideas of the true and the false, of the proper uses of things, and so forth, or when labouring in his perfectly self-conceived fashion to overtake us and be as experienced and as conventional as ourselves. This ever new play of droll feature in childish thought and action forms one of the deepest sources of delight for the modern lover of childhood.

With the growth of a poetic or sentimental interest in childhood there has come a new and different kind of interest. Ours is a scientific age, and science has cast its

inquisitive eye on the infant. We want to know what happens in these first all-decisive two or three years of human life, by what steps exactly the wee amorphous thing takes shape and bulk, both physically and mentally. And we can now speak of the beginning of a careful and methodical investigation of child-nature, by men trained in scientific observation. This line of inquiry, started by physicians, as the German Sigismund, in connection with their special professional aims, has been carried on by a number of fathers and others having access to the infant, among whom it may be enough to name Darwin and Preyer.[1]

This eagerness to know what the child is like, an eagerness illustrated further by the number of reminiscences of early years recently published, is the outcome of a many-sided interest which it may be worth while to analyse.

The most obvious source of interest in the doings of infancy lies in its primitiveness. At the cradle we are watching the beginnings of things, the first tentative thrustings forward into life. Our modern science is before all things historical and genetic, going back to beginnings so as to understand the later and more complex phases of things as the outcome of these beginnings. The same kind of curiosity which prompts the geologist to get back to the first stages in the building up of the planet, or the biologist to search out the pristine forms of life, is beginning to urge the student of man to discover by a careful study of infancy the way in which human life begins to take its characteristic forms.

The appearance of Darwin's name among those who have deemed the child worthy of study suggests that the subject is closely connected with natural history. However man in his proud maturity may be related to nature, it is certain that in his humble inception he is immersed in

[1] A fuller list of writings on the subject will be given at the end of the volume.

her and saturated with her. As we all know, the lowest races of mankind stand in close proximity to the animal world. The same is true of the infants of civilised races. Their life is outward and visible, forming a part of nature's spectacle ; reason and will, the noble prerogatives of humanity, are scarce discernible ; sense, appetite, instinct, these animal functions seem to sum up the first year of human life.

To the evolutionist, moreover, the infant exhibits a still closer kinship to the natural world. In the successive stages of fœtal development he sees the gradual unfolding of human lineaments out of a widely typical animal form. And even after birth he can discern new evidences of this genealogical relation of the "lord" of creation to his inferiors. How significant, for example, is the fact recently established by a medical man, Dr. Louis Robinson, that the new-born infant is able just like the ape to suspend his whole weight by grasping a small horizontal rod.[1]

Yet even as nature-object for the biologist the child presents distinctive attributes. Though sharing in animal instinct, he shares in it only to a very small extent. The most striking characteristic of the new-born offspring of man is its unpreparedness for life. Compare with the young of other animals the infant so feeble and incapable. He can neither use his limbs nor see the distance of objects as a new-born chick or calf is able to do. His brain-centres are, we are told, in a pitiable state of undevelopment —and are not even securely encased within their bony covering. Indeed, he resembles for all the world a public building which has to be opened by a given date, and is found when the day arrives to be in a humiliating state of incompleteness.

[1] The *Nineteenth Century* (1891). *Cf.* the somewhat fantastic and not too serious paper by S. S. Buckman on "Babies and Monkeys" in the same journal (1894).

This fact of the special helplessness of the human offspring at birth, of its long period of dependence on parental or other aids—a period which, probably, tends to grow longer as civilisation advances—is rich in biological and sociological significance. For one thing, it presupposes a specially high development of the protective and fostering instincts in the human parents, and particularly the mother—for if the helpless wee thing were not met by these instincts, what would become of our race? It is probable, too, as Mr. Spencer and others have argued, that the institution by nature of this condition of infantile weakness has reacted on the social affections of the race, helping to develop our pitifulness for all frail and helpless things.

Nor is this all. The existence of the infant, with its large and imperative claims, has been a fact of capital importance in the development of social customs. Ethnological researches show that communities have been much exercised with the problem of infancy, have paid it the homage due to its supreme sacredness, girding it about with a whole group of protective and beneficent customs.[1]

Enough has been said, perhaps, to show the far-reaching significance of babyhood to the modern savant. It is hardly too much to say that it has become one of the most eloquent of nature's phenomena, telling us at once of our affinity to the animal world, and of the forces by which our race has, little by little, lifted itself to so exalted a position above this world; and so it has happened that not merely to the perennial baby-worshipper, the mother, and not merely to the poet touched with the mystery of far-off things, but to the grave man of science the infant has become a centre of lively interest.

Nevertheless, it is not to the mere naturalist that the babe reveals all its significance. Physical organism as it seems to be more than anything else, hardly more than a

[1] See, for example, the works of H. Ploss, *Das Kind in Brauch und Sitte*, and *Das kleine Kind*.

vegetative thing indeed, it carries with it the germ of a human consciousness, and this consciousness begins to expand and to form itself into a truly human shape from the very beginning. And here a new source of interest presents itself. It is the human psychologist, the student of those impalpable, unseizable, evanescent phenomena which we call "states of consciousness," who has a supreme interest, and a scientific property in these first years of a human existence. What is of most account in these crude tentatives at living after the human fashion is the play of mind, the first spontaneous manifestations of recognition, of reasoning expectation, of feelings of sympathy and antipathy, of definite persistent purpose.

Rude, inchoate, vague enough, no doubt, are these first groping movements of a human mind: yet of supreme value to the psychologist just because they are the first. If, reflects the psychologist, he can only get at this baby's consciousness so as to understand what is passing there, he will be in an infinitely better position to find his way through the intricacies of the adult consciousness. It may be, as we shall see by-and-by, that the baby's mind is not so perfectly simple, so absolutely primitive as it at first looks. Yet it is the simplest type of human consciousness to which we can have access. The investigator of this consciousness can never take any known sample of the animal mind as his starting point if for no other reason for this, that while possessing many of the elements of the human mind, it presents these in so unlike, so peculiar a pattern.

In this genetic tracing back of the complexities of man's mental life to their primitive elements in the child's consciousness, questions of peculiar interest will arise. A problem, which though having a venerable antiquity is still full of meaning, concerns the precise relation of the higher forms of intelligence and of sentiment to the elementary facts of the individual's life-experience. Are

we to regard all our ideas, even those of God, as woven by the mind out of its experiences, as Locke thought, or have we certain 'innate ideas' from the first? Locke thought he could settle this point by observing children. To-day, when the philosophic emphasis is laid not on the date of appearance of the 'innate' intuition, but on its originality and spontaneity, this method of interrogating the child's mind may seem less promising. Yet if of less philosophical importance than was once supposed, it is of great psychological importance. There are certain questions, such as that of how we come to see things at a distance from us, which can be approached most advantageously by a study of infant movements. In like manner I believe the growth of a moral sentiment, of that feeling of reverence for duty to which Kant gave so eloquent an expression, can only be understood by the most painstaking observation of the mental activities of the first years.

There is, however, another, and in a sense a larger, source of psychological interest in studying the processes and development of the infant mind. It was pointed out above that to the evolutional biologist the child exhibits man in his kinship to the lower sentient world. This same evolutional point of view enables the psychologist to connect the unfolding of an infant's mind with something which has gone before, with the mental history of the race. According to this way of looking at infancy the successive phases of its mental life are a brief *résumé* of the more important features in the slow upward progress of the species. The periods dominated successively by sense and appetite, by blind wondering and superstitious fancy, and by a calmer observation and a juster reasoning about things, these steps mark the pathway both of the child-mind and of the race-mind.

This being so, the first years of a child, with their imperfect verbal expression, their crude fanciful ideas, their seizures by rage and terror, their absorption in the present

moment, acquire a new and antiquarian interest. They mirror for us, in a diminished distorted reflexion no doubt, the probable condition of primitive man. As Sir John Lubbock and other anthropologists have told us, the intellectual and moral resemblances between the lowest existing races of mankind and children are numerous and cl se. They will be illustrated again and again in the following studies.

Yet this way of viewing childhood is not merely of antiquarian interest. While a monument of his race, and in a manner a key to its history, the child is also its product. In spite of the fashionable Weismannism of the hour, there are evolutionists who hold that in the early manifested tendencies of the child we can discern signs of a hereditary transmission of the effects of ancestral experiences and activities. His first manifestations of rage, for example, are a survival of actions of remote ancestors in their life and death struggles. The impulse of obedience, which is as much a characteristic of the child as that of disobedience, may in like manner be regarded as a transmitted rudiment of a long practised action of socialised ancestors. This idea of an increment of intelligence and moral disposition, earned for the individual not by himself but by his ancestors, has its peculiar interest. It gives a new meaning to human progress to suppose that the dawn of infant intelligence, instead of being a return to a primitive darkness, contains from the first a faint light reflected on it from the lamp of racial intelligence which has preceded ; that instead of a return to the race's starting point, the lowest form of the school of experience, it is a start in a higher form, the promotion being a reward conferred on the child for the exertions of his ancestors. Psychological observation will be well employed in scanning the features of the infant's mind in order to see whether they yield evidence of such ancestral dowering.

So much with respect to the rich and varied scientific interest attaching to the movements of the child's mind. It only remains to touch on a third main interest in childhood,

the practical or educational interest. The modern world, while erecting the child into an object of æsthetic contemplation, while bringing to bear on him the bull's eye lamp of scientific observation, has become sorely troubled by the momentous problem of rearing him. What was once a matter of instinct and unthinking rule-of-thumb has become the subject of profound and perplexing discussion. Mothers —the right sort of mothers that is—feel that they must know *au fond* this wee speechless creature which they are called upon to direct into the safe road to manhood. And professional teachers, more particularly the beginners in the work of training, whose work is in some respects the most difficult and the most honourable, have come to see that a clear insight into child-nature and its spontaneous movements must precede any intelligent attempt to work beneficially upon this nature. In this way the teacher has lent his support to the savant and the psychologist in their investigation of infancy. More particularly he has betaken him to the psychologist in order to discover more of the native tendencies and the governing laws of that unformed child-mind which it is his in a special manner to form. In addition to this, the growing educational interest in the spontaneous behaviour of the child's mind may be expected to issue in a demand for a *statistic* of childhood, that is to say, carefully arranged collections of observations bearing on such points as children's questions, their first thoughts about nature, their manifestations of sensibility and insensibility.

The awakening in the modern mind of this keen and varied interest in childhood has led, and is destined to lead still more, to the observation of infantile ways. This observation will, of course, be of very different value according as it subserves the contemplation of the humorous or other æsthetically valuable aspect of child-nature, or as it is directed towards a scientific understanding of this. Pretty anecdotes of children which tickle the emotions may or may not add to our insight into the peculiar mechanism of

children's minds. There is no necessary connexion between smiling at infantile drolleries and understanding the laws of infantile intelligence. Indeed, the mood of merriment, if too exuberant, will pretty certainly swamp for the moment any desire to understand.

The observation which is to further understanding, which is to be acceptable to science, must itself be scientific. That is to say, it must be at once guided by fore-knowledge, specially directed to what is essential in a phenomenon and its surroundings or conditions, and perfectly exact. If anybody supposes this to be easy, he should first try his hand at the work, and then compare what he has seen with what Darwin or Preyer has been able to discover.

How difficult this is may be seen even with reference to the outward physical part of the phenomena to be observed. Ask any mother untrained in observation to note the first appearance of that complex facial movement which we call a smile, and you know what kind of result you are likely to get. The phenomena of a child's mental life, even on its physical and visible side, are of so subtle and fugitive a character that only a fine and quick observation is able to cope with them. But observation of children is never merely seeing. Even the smile has to be interpreted as a smile by a process of imaginative inference. Many careless onlookers would say that a baby smiles in the first days from very happiness, when another and simpler explanation of the movement is forthcoming. Similarly, it wants much fine judgment to say whether an infant is merely stumbling accidentally on an articulate sound, or is imitating your sound. A glance at some of the best memoirs will show how enormously difficult it is to be sure of a right interpretation of these early and comparatively simple manifestations of mind.[1]

[1] These difficulties seem to me to be curiously overlooked in Prof. Mark Baldwin's recent utterance on child psychology (*Mental*

Things grow a great deal worse when we try to throw our scientific lassoo about the elusive spirit of a child of four or six, and to catch the exact meaning of its swiftly changing movements. Children are, no doubt, at this age frank before the eye of love, and their minds are vastly more accessible than that of the dumb dog that can only look his ardent thoughts. Yet they are by no means so open to view as is often supposed. All kinds of shy reticences hamper them: they feel unskilled in using our cumbrous language; they soon find out that their thoughts are not as ours, but often make us laugh. And how carefully are they wont to hide from our sight their nameless terrors, physical and moral. Much of the deeper childish experience can only reach us, if at all, years after it is over, through the faulty medium of adult memory—faulty even when it is the memory of a Goethe, a George Sand, a Robert Louis Stevenson.[1]

Even when there is perfect candour, and the little one does his best to instruct us as to what is passing in his mind by his 'whys' and his 'I s'poses,' accompanied by the most eloquent of looks, we find ourselves ever and again unequal to comprehending. Child-thought follows its own paths—roads, as Mr. Rudyard Kipling has well said, "unknown to those who have left childhood behind". The dark sayings of childhood, as when a child asks, 'Why am I not somebody else?' will be fully illustrated below.

This being so, it might well seem arrogant to speak of

Development in the Child and the Race, chap. ii.). In this optimistic presentment of the subject there is not the slightest reference to the difficult work of interpretation. Child-study is talked of as a perfectly simple mode of observation, requiring at most to be supplemented by a little experiment, and, it may be added, backed by a firm theory.

[1] In these days of published reminiscences of childhood it is quite refreshing to meet with a book like Mr. James Payn's *Gleams of Memory*, which honestly confesses that its early recollections are almost *nil*.

any 'scientific' investigation of the child's mind; and, to be candid, I may as well confess that, in spite of some recently published highly hopeful forecasts of what child-psychology is going to do for us, I think we are a long way off from a perfectly scientific account of it. Our so-called theories of children's mental activity have so often been hasty generalisations from imperfect observations. Children are probably much more diverse in their ways of thinking and feeling than our theories suppose. But of this more presently. Even where we meet with a common and comparatively prominent trait, we are far as yet from having a perfect comprehension of it. I at least believe that children's play, about which so much has confidently been written, is but imperfectly understood. Is it serious business, half-conscious make-believe, more than half-conscious acting, or, no one of these, or all of them by turns? I think he would be a bold man who ventured to answer this question straight away.

In this state of things it might seem well to wait. Possibly by-and-by we shall light on new methods of tapping the childish consciousness. Patients in a certain stage of the hypnotic trance have returned, it is said, to their childish experiences and feelings. Some people do this, or appear to do this, in their dreams. I know a young man who revives vivid recollections of the experiences of the third year of life when he is sleepy, and more especially if he is suffering from a cold. These facts suggest that if we only knew more about the mode of working of the brain we might reinstate a special group of conditions which would secure a re-emergence of childish ideas and sentiments.

Yet our case is not so hopeless that we need defer inquiry into the child's mind until human science has fathomed all the mysteries of the brain. We can know many things of this mind, and these of great importance, even now. The naturalist discusses the actions

of the lower animals, confidently attributing intelligent planning here, and a germ of vanity or even of moral sense there; and it would be hard were we forbidden to study the little people that are of our own race, and are a thousand times more open to inspection. Really good work has already been done here, and one should be grateful. At the same time, it seems to me of the greatest importance to recognise that it is but a beginning: that the child which the modern world has in the main discovered is after all only half discovered: that if we are to get at his inner life, his playful conceits, his solemn broodings over the mysteries of things, his way of responding to the motley show of life, we must carry this work of noting and interpreting to a much higher point.

Now, if progress is to be made in this work, we must have specially qualified workers. All who know anything of the gross misunderstandings of children of which many so-called intelligent adults are capable, will bear me out when I say that a certain gift of penetration is absolutely indispensable here. If any one asks me what the qualifications of a good child-observer amount to, I may perhaps answer, for the sake of brevity, 'a divining faculty, the offspring of child-love, perfected by scientific training'. Let us see what this includes.

That the observer of children must be a diviner, a sort of clairvoyant reader of their secret thoughts, seems to me perfectly obvious. Watch half a dozen men who find themselves unexpectedly ushered into a room tenanted by a small child, and you will soon be able to distinguish the diviners, who, just because they have in themselves something akin to the child, seem able at once to get into touch with children. It is probable that women's acknowledged superiority in knowledge of child-nature is owing to their higher gift of sympathetic insight. This faculty, so far from being purely intellectual, is very largely the outgrowth of a peculiar moral nature to which the life

of all small things, and of children more than all, is always sweet and congenial. It is very much of a secondary, or acquired instinct; that is, an unreflecting intuition which is the outgrowth of a large experience. For the child-lover seeks the object of his love, and is never so happy as when associating with children and sharing in their thoughts and their pleasures. And it is through such habitual intercourse that there forms itself the instinct or tact by which the significance of childish manifestation is at once unerringly discerned.

There is in this tact or fineness of spiritual touch one constituent so important as to deserve special mention. I mean a lively memory of one's own childhood. As I have observed above, I do not believe in an exact and trustworthy reproduction in later life of particular incidents of childhood. All recalling of past experiences illustrates the modifying influence of the later self in its attempt to assimilate and understand the earlier self; and this transforming effect is at its maximum when we try to get back to childhood. But though our memory of childhood is not in itself exact enough to furnish facts, it may be sufficiently strong for the purposes of interpreting our observations of the children we see about us. It is said, and said rightly, that in order to read a child's mind we need imagination, and since all imagination is merely readjustment of individual experience, it follows that the skilled decipherer of infantile characters needs before all things to be in touch with his own early feelings and thoughts. And this is just what we find. The vivacious, genial woman who is never so much at home as when surrounded by a bevy of eager-minded children is a woman who remains young in the important sense that she retains much of the freshness and unconventionality of mind, much of the gaiety and expansiveness of early life. Conversely one may feel pretty sure that a woman who retains a vivid memory of her childish ideas and feelings will be drawn to the companion-

ship of children. After reading their autobiographies one hardly needs to be told that Goethe carried into old age his quick responsiveness to the gaiety of the young heart ; and that George Sand when grown old was never so happy as when gathering the youngsters about her. [1]

Yet valuable as is this gift of sympathetic insight, it will not, of course, conduce to that methodical, exact kind of observation which is required by science. Hence the need of the second qualification : psychological training. By this is meant that special knowledge which comes from studying the principles of the science, its peculiar problems, and the methods appropriate to these, together with the special skill which is attained by a methodical, practical application of this knowledge in the actual observation and interpretation of manifestations of mind. Thus a woman who wishes to observe to good effect the mind of a child of three must have a sufficient acquaintance with the general course of the mental life to know what to expect, and in what way the phenomena observed have to be interpreted. Really fine and fruitful observation is the outcome of a large knowledge, and anybody who is to carry out in a scientific fashion the observation of the humblest phase of a child's mental life must already know this life as a whole, so far as psychology can as yet describe its characteristics, and determine the conditions of its activity.

And here the question naturally arises : "Who is to carry out this new line of scientific observation?" To begin with the first stage of it, who is to carry out the exact methodical record of the movements of the infant? It is evident that qualification or capacity is not all that is necessary here ; capacity must be favoured with opportunity before the work can be actually begun.

It has been pointed out that the pioneers who struck out

[1] Since this was written the authoress of *Little Lord Fauntleroy* has shown us how clear and far-reaching a memory she has of her childish experiences

this new line of experimental research were medical men. The meaning of this fact is pretty apparent. The doctor has not only a turn for scientific observation; he is a privileged person in the nursery. The natural guardians of infancy, the mother and the nurse, exempt him from their general ban on the male. He excepted, no man, not even the child's own father, is allowed to meddle too much with that divine mystery, that meeting point of all the graces and all the beatitudes, the infant.

Consider for a moment the natural prejudice which the inquirer into the characteristics of the infant has to face. Such inquiry is not merely passively watching what spontaneously presents itself; it is emphatically experimenting, that is, the calling out of reactions by applying appropriate stimuli. Even to try whether the new-born babe will close its fingers on your finger when brought into contact with their anterior surface may well seem impious to a properly constituted nurse. To propose to test the wee creature's sense of taste by applying drops of various solutions, as acid, bitters, etc., to the tongue, or to provoke ocular movements to the right or the left, would pretty certainly seem a profanation of the temple of infancy, if not fraught with danger to its tiny deity. And as to trying Dr. Robinson's experiment of getting the newly arrived visitor to suspend his whole precious weight by clasping a bar, it is pretty certain that, women being constituted as at present, only a medical man could have dreamt of so daring a feat.

There is no doubt that baby-worship, the sentimental adoration of infant ways, is highly inimical to the carrying out of a perfectly cool and impartial process of scientific observation. Hence the average mother can hardly be expected to do more than barely to tolerate this encroaching of experiment into the hallowed retreat of the nursery. Even in these days of rapid modification of what used to be thought unalterable sexual characters, one may be bold

enough to hazard the prophecy that women who have had scientific training will, if they happen to become mothers, hardly be disposed to give their minds at the very outset to the rather complex and difficult work, say, of making an accurate scientific inventory of the several modes of infantile sensibility, visual, auditory, and so forth, and of the alterations in these from day to day.

It is for the coarser fibred man, then, to undertake much of the earlier experimental work in the investigation of child-nature. And if fathers will duly qualify themselves they will probably find that permission will little by little be given them to carry out investigations, short, of course, of anything that looks distinctly dangerous to the little being's comfort.

At the same time it is evident that a complete series of observations of the infant can hardly be carried out by a man alone. It is for the mother, or some other woman with a pass-key to the nursery, with her frequent and prolonged opportunities of observation, to attempt a careful and methodical register of mental progress. Hence the importance of enlisting the mother or her female representative as collaborateur or at least as assistant. Thus supposing the father is bent on ascertaining the exact dates and the order of appearance of the different articulate sounds, which is rather a subject of passive observation than of active experiment; he will be almost compelled to call in the aid of one who has the considerable advantage of passing a good part of each day near the child.[1]

[1] The great advantage which the female observer of the infant's mind has over her male competitor is clearly illustrated in some recent studies of childhood by American women. I would especially call attention to a study by Miss M. W. Shinn of the University of California, *Notes on the Development of a Child* (the writer's niece), where the minute and painstaking record (*e.g.*, of the child's colour-discrimination and visual space-exploration) points to the ample opportunity of observation which comes more readily to women.

As the wee thing grows and its nervous system becomes more stable and robust more in the way of research may of course be safely attempted. In this higher stage the work of observation will be less simple and involve more of special psychological knowledge. It is a comparatively easy thing to say whether the sudden approach of an object to the eye of a baby a week or so old calls forth the reflex known as blinking: it is a much more difficult thing to say what are the preferences of a child of twelve months in the matter of simple forms, or even colours.

The problem of the course of development of the colour-sense in children looks at first easy enough. Any mother, it may be thought, can say which colours the child first recognises by naming them when seen, or picking them out when another names them. Yet simple as it looks, the problem is in reality anything but simple. A German investigator, Professor Preyer of Berlin, went to work methodically with his little boy of two years so as to see in what order he would discriminate colours. Two colours, red and green, were first shown, the name added to each, and the child then asksd: "Which is red?" "Which is green?" Then other colours were added and the experiments repeated. According to these researches this particular child first acquired a clear discriminative awareness of yellow. Preyer's results have not, however, been confirmed by other investigators, as M. Binet of Paris, who followed a similar method of inquiry. Thus according to Binet it is not yellow but blue which carries the day in the competition for the child's preferential recognition.

What, it may be asked, is the explanation of this? Is it that children differ in the mode of development of their colour-sensibility to this extent, or can it be that there is some fault in the method of investigation? It has been recently suggested that the mode of testing colour-discrimination by naming is open to the objection that a child may get hold of one verbal sound, as 'red,' more easily

than another, as 'green,' and that this would facilitate the recognition of the former. If in this way the recognition of a colour is aided by the retention of its name, we must get rid of this disturbing element of sound. Accordingly new methods of experiment have been attempted in France and America. Thus Professor Baldwin investigates the matter by placing two colours opposite the child's two arms and noting which is reached out to by right or left arm, which is ignored. He has tabulated the results of a short series of these simple experiments for testing childish preference, and supports the conclusions of Binet, as against those of Preyer, that blue comes in for the first place in the child's discriminative recognition.[1] It is however easy to see that this method has its own characteristic defects. Thus, to begin with, it evidently does not directly test colour-discrimination at all, but the liking for or interest in colours, which though it undoubtedly implies a measure of discrimination must not be confused with this. And even as a test of preference it is very likely to be misapplied. Thus supposing that the two colours are not equally bright, then the child will grasp at one rather than at the other, because it is a brighter object and not because it is this particular colour. Again if one colour fall more into the first and fresh period of the exercise when the child is fresh and active, whereas another falls more into the second period when he is tired and inactive, the results would, it is evident, give too much value to the former. Similarly, if one colour were brought in after longer intervals of time than another it would have more attractive force through its greater novelty.

Enough has been said to show how very delicate a problem we have here to deal with. And if scientific men are still busy settling the point how the problem can be best dealt with, it seems hopeless for the amateur to dabble in the matter.

[1] *Mental Development in the Child and the Race*, chap. iii.

I have purposely chosen a problem of peculiar complexity and delicacy in order to illustrate the importance of that training which makes the mental eye of the observer quick to analyse the phenomenon to be dealt with so as to take in all its conditions. Yet there are many parts of this work of observing the child's mind which do not make so heavy a demand on technical ability, but can be done by any intelligent observer prepared for the task by a reasonable amount of psychological study. I refer more particularly to that rich and highly interesting field of exploration which opens up when the child begins to talk. It is in the spontaneous utterances of children, their first quaint uses of words, that we can best watch the play of the instinctive tendencies of thought. Children's talk is always valuable to a psychologist; and for my part I would be glad of as many anecdotal records of their sayings as I could collect.

Here, then, there seems to be room for a relatively simple and unskilled kind of observing work. Yet it would be a mistake to suppose that even this branch of child-observation requires nothing but ordinary intelligence. To begin with, we are all prone, till by special training we have learned to check the inclination, to read far too much of our older thought and sentiment into children. As M. Droz observes, *nous sommes dupes de nous-mêmes lorsque nous observons ces chers bambins.*[1]

Again, there is a subtle source of error connected with the very attitude of undergoing examination which only a carefully trained observer of childish ways will avoid. A child is very quick in spying whether he is being observed, and as soon as he suspects that you are specially interested in his talk he is apt to try to produce an effect. This wish to say something startling, wonderful, or what not, will, it is obvious, detract from the value of the utterance.

[1] *L'Enfant*, p. 142.

But once more the saying which it is so easy to report has had its history, and the observer who knows something of psychology will look out for facts, that is to say, experiences of the child, suggestions made by others' words which throw light on the saying. No fact is really quite simple, and the reason why some facts look so simple is that the observer does not include in his view all the connexions of the occurrence which he is inspecting. The unskilled observer of children is apt to send scraps, fragments of facts, which have not their natural setting. The value of psychological training is that it makes one as jealously mindful of wholeness in facts as a housewife of wholeness in her porcelain. It is, indeed, only when the whole fact is before us, in well-defined contour, that we can begin to deal with its meaning. Thus although those ignorant of psychology may assist us in this region of fact-finding, they can never accomplish that completer and exacter kind of observation which we dignify by the name of Science.[1]

One may conclude then that women are fitted to become valuable labourers in this new field of investigation, if only they will acquire a genuine scientific interest in babyhood, and a fair amount of scientific training. That a large number of women will get so far is I think doubtful: the sentimental or æsthetic attraction of the baby is apt to be a serious obstacle to a cold matter-of-fact examination of it as a scientific specimen. The natural delight of a mother in every new exhibition of infantile wisdom or prowess is liable to blind her to the exceedingly modest

[1] Since writing the above I have had my opinion strongly confirmed by reading a record of sayings of children carried out by women students in an American Normal College (*Thoughts and Reasonings of Children*, classified by H. W. Brown, Teacher of Psychology in State Normal School, Worcester, Mass., with introduction by E. H. Russell, Principal: reprinted from the *Pedagogical Seminary*). Many of the quaint sayings noted down lose much of their psychological point from our complete ignorance of the child's home-experience, companionships, school and training.

significance of the child's performances as seen from the scientific point of view. Yet, as I have hinted, this very fondness for infantile ways, may, if only the scientific caution is added, prove a valuable excitant to study. In England, and in America, there is already a considerable number of women who have undergone some serious training in psychology, and it may not be too much to hope that before long we shall have a band of mothers and aunts busily engaged in noting and recording the movements of children's minds.

I have assumed here that what is wanted is careful studies of individual children as they may be approached in the nursery. And these records of individual children, after the pattern of Preyer's monograph, are, I think, our greatest need. We are wont to talk rather too glibly about that abstraction, 'the child,' as if all children rigorously corresponded to one pattern, of which pattern we have a perfect knowledge. Mothers at least know that this is not so. Children of the same family will be found to differ very widely (within the comparatively narrow field of childish traits), as, for example, in respect of matter-of-factness, of fancifulness, of inquisitiveness. Thus, while it is probably true that most children at a certain age are greedy of the pleasures of the imagination, Nature in her well-known dislike of monotony has taken care to make a few decidedly unimaginative. We need to know much more about these variations: and what will best help us here is a number of careful records of infant progress, embracing examples not only of different sexes and temperaments, but also of different social conditions and nationalities. When we have such a collection of monographs we shall be in a much better position to fill out the hazy outline of our abstract conception of childhood with definite and characteristic lineaments.

At the same time I gladly allow that other modes of observation are possible and in their way useful. This

applies to older children who pass into the collective existence of the school-class. Here something like collective or statistical inquiry may be begun, as that into the contents of children's minds, their ignorances and misapprehensions of common objects. Some part of this inquiry into the minds of school-children may very well be undertaken by an intelligent teacher. Thus it would be valuable to have careful records of children's progress carried out by pre-arranged tests, so as to get collections of examples of mental activity at different ages. More special lines of inquiry having a truly experimental character might be carried out by experts, as those already begun with reference to children's "span of apprehension," *i.e.*, the number of digits or nonsense syllables that can be reproduced after a single hearing, investigations into the effects of fatigue on mental processes, into the effect of number of repetitions on the certainty of reproduction, into musical sensitiveness and so forth.

Valuable as such statistical investigation undoubtedly is, it is no substitute for the careful methodical study of the individual child. This seems to me the greatest desideratum just now. Since the teacher needs for practical reasons to make a careful study of individuals he might well assist here. In these days of literary collaboration it might not be amiss for a kindergarten teacher to write an account of a child's mind in co-operation with the mother. Such a record if well done would be of the greatest value. The co-operation of the mother seems to me quite indispensable, since even where there is out-of-class intercourse between teacher and pupil the knowledge acquired by the former never equals that of the mother.

II.

THE AGE OF IMAGINATION.

Why we call Children Imaginative.

ONE of the few things we seemed to be certain of with respect to child-nature was that it is fancy-full. Childhood, we all know, is the age for dreaming, for decking out the world as yet unknown with the gay colours of imagination; for living a life of play or happy make-believe. So that nothing seems more to characterise the 'Childhood of the World' than the myth-making impulse which by an overflow of fancy seeks to hide the meagreness of knowledge.

Yet even here, perhaps, we have been content with loose generalisation in place of careful observation and analysis of facts. For one thing, the play of infantile imagination is probably much less uniform than is often supposed. There seem to be matter-of-fact children who cannot rise buoyantly to a bright fancy. Mr. Ruskin, of all men, has recently told us that when a child he was incapable of acting a part or telling a tale, that he never knew a child "whose thirst for visible fact was at once so eager and so methodic".[1] We may accept the report of Mr. Ruskin's memory as proving that he did not idle away his time in day-dreams, but, by long and close observation of running water, and the like, laid the foundations of that fine knowledge of the appearances of nature which everywhere shines through his writings. Yet one may be permitted to doubt

[1] *Præterita*, p. 76.

whether a writer who shows not only so rich and graceful a style but so truly poetic an invention could have been *in every respect* an unimaginative child.

Perhaps the truth will turn out to be the paradox that most children are at once matter-of-fact observers *and* dreamers, passing from the one to the other as the mood takes them, and with a facility which grown people may well envy. My own observations go to show that the prodigal out-put of fancy, the revelling in myth and story, is often characteristic of one period of childhood only. We are apt to lump together such different levels of experience and capacity under that abstraction 'the child'. The wee mite of three and a half, spending more than half his days in trying to realise all manner of pretty, odd, startling fancies about animals, fairies, and the rest, is something vastly unlike the boy of six or seven, whose mind is now bent on understanding the make and go of machines, and of that big machine, the world.

So far as I can gather from inquiries sent to parents and other observers of children, a large majority of boys and girls alike are for a time fancy-bound. A child that did not want to play and cared nothing for the marvels of story-land would surely be regarded as queer and not just what a child ought to be. Yet, supposing that this is the right view, there still remains the question whether imagination always works in the same way in the childish brain. Science is beginning to aid us in understanding the differences of childish fancy. For one thing it is leading us to see that a child's whole imaginative life may be specially coloured by the preponderant vividness of a certain order of images, that one child may live imaginatively in a coloured world, another in a world of sounds, another rather in a world of movements. It is easy to note in the case of certain children of the more lively and active turn, how the supreme interest of story as of play lies in the ample range of movement and bodily activity. Robinson

Crusoe is probably for the boyish imagination, more than anything else, the goer and the doer.[1]

With this difference in the elementary constituents of imagination, there are others which turn on temperament, tone of feeling, and preponderant directions of emotion. Imagination is intimately bound up with the life of feeling, and will assume as many directions as this life assumes. Hence, the familiar fact that in some children imagination broods by preference on gloomy and terrifying objects, religious and other, whereas in others it selects what is bright and gladsome; that while in some cases it has more of the poetic quality, in others it leans rather to the scientific or to the practical type.

Enough has been said perhaps to show that the imaginativeness of children is not a thing to be taken for granted as existing in all children alike. It is eminently a variable faculty requiring a special study in the case of each new child.

But even waiving this fact of variability it may, I think, be said that we are far from understanding the precise workings of imagination in children. We talk, for example, glibly about their play, their make-believe, their illusions; but how much do we really know of their state of mind when they act out a little scene of domestic life, or of the battle-field? We have, I know, many fine observations on this head. Careful observers of children and conservers of their own childish experiences, such as Rousseau, Pestalozzi, Jean Paul, Madame Necker, George Sand, R. L. Stevenson, tell us much that is valuable: yet I suspect that there must be a much wider and finer investigation of children's action and talk before we can feel

[1] The different tendencies of children towards visual, auditory, motor images, etc., are dealt with by F. Queyrat, *L'Imagination et ses variétés chez l'enfant.* *Cf.* an article by W. H. Burnham, "Individual Differences in the Imagination of Children," *Pedagogical Seminary*, ii., 2.

quite sure that we have got at their mental whereabouts, and know how they feel when they pretend to enter the dark wood, the home of the wolf, or to talk with their deities, the fairies.

Perhaps I have said enough to justify my plea for new observations and for a reconsideration of hasty theories in the light of these. Nor need we object to a fresh survey of what is perhaps the most delightful side of child-life. I often wonder indeed when I come across some precious bit of droll infantile acting, or of sweet child-soliloquy, how mothers can bring themselves to lose one drop of the fresh exhilarating draught which daily pours forth from the fount of a child's phantasy.

Nor is it merely for the sake of its inherent charm that children's imagination deserves further study. In the early age of the individual and of the race what we enlightened persons call fancy has a good deal to do with the first crude attempts at understanding things. Child-thought, like primitive folk-thought, is saturated with myth, vigorous phantasy holding the hand of reason—as yet sadly rickety in his legs—and showing him which way he should take. In the moral life again, we shall see how easily the realising force of young imaginati n may expose it to deception by others, and to self-deception too, with results that closely simulate the guise of a knowing falsehood. On the other hand a careful following out of the various lines of imaginative activity may show how moral education, by vividly suggesting to the child's imagination a worthy part, a praiseworthy action, may work powerfully on the unformed and flexible structure of his young will, moving it dutywards.

Imaginative Transformation of Objects.

The play of young imagination meets us in the domain of sense-observation : a child is fancying when he looks at things and touches them and moves among them.

This may seem a paradox at first, but in truth there is nothing paradoxical here. It is an exploded psychological fallacy that sense and imagination are wholly apart. No doubt, as the ancients told us, phantasy follows and is the offspring of sense: we live over again in waking and sleeping imagination the sights and sounds of the real world. Yet it is no less true that imagination in an active constructive form takes part in the very making of what we call sense-experience. We *read* the visual symbol, say, a splash of light or colour, now as a stone, now as a pool of water, just because imagination drawing from past experience supplies the interpretation, the group of qualities which composes a hard solid mass, or a soft yielding liquid.

A child's fanciful reading of things, as when he calls the twinkling star a (blinking) eye, or the dew-drops on the grass tears, is but an exaggeration of what we all do. His imagination carries him very much farther. Thus he may attribute to the stone he sees a sort of stone-soul, and speak of it as feeling tired of a place.

This lively way of envisaging objects is, as we know, similar to that of primitive folk, and has something of crude nature-poetry in it. This tendency is abundantly illustrated in the metaphors which play so large a part in children's talk. As all observers of them know they are wont to describe what they see or hear by analogy to something they know already. This is called by some, rather clumsily I think, apperceiving. For example, a little boy of two years and five months, on looking at the hammers of a piano which his mother was playing, called out: 'There is owlegie' (diminutive of owl). His eye had instantly caught the similarity between the round felt disc of the hammer divided by a piece of wood, and the owl's face divided by its beak. In like manner the boy C. called a small oscillating compass-needle a 'bird' on the ground of its

slightly bird-like form, and of its fluttering movement.[1] Pretty conceits are often resorted to in this assimilation of the new and strange to the familiar, as when a child seeing dew on the grass said, 'The grass is crying,' or when stars were described as "cinders from God's stove," and butterflies as "pansies flying".[2] Other examples of this picturesque mode of childish apperception will meet us below.

This play of imagination in connexion with apprehending objects of sense has a strong vitalising or personifying element. That is to say, the child sees what we regard as lifeless and soulless as alive and conscious. Thus he gives not only body but soul to the wind when it whistles or howls at night. The most unpromising things come in for this warming vitalising touch of the child's fancy. He will make something like a personality out of a letter. Thus one little fellow aged one year eight months conceived a special fondness for the letter W, addressing it thus: 'Dear old boy W'. Another little boy well on in his fourth year, when tracing a letter L happened to slip so that the horizontal limb formed an angle thus, ⌞. He instantly saw the resemblance to the sedentary human form and said: "Oh, he's sitting down". Similarly when he made an F turn the wrong way and then put the correct form to the left thus, F Ⅎ, he exclaimed: "They're talking together".

Sometimes this endowment of things with feeling leads to a quaint manifestation of sympathy. Miss Ingelow writes of herself: When a little over two years old, and for about a year after "I had a habit of attributing intelligence not only to all living creatures, the same amount and kind of intelligence that I had myself, but even to stones and manufactured articles. I used to feel

[1] The references to the child C. are to the subject of the memoir given below, chap. xi.

[2] W. H. Burnham, *loc. cit.*, p. 212 f.

how dull it must be for the pebbles in the causeway to be obliged to lie still and only see what was round about. When I walked out with a little basket for putting flowers in I used sometimes to pick up a pebble or two and carry them on to have a change: then at the farthest point of the walk turn them out, not doubting that they would be pleased to have a new view." [1]

This is by no means a unique example of a quaint childish expression of pity for what we think the insentient world. Plant-life seems often to excite the feeling. Here is a quotation from a parent's chronicle: "A girl aged eight, brings a quantity of fallen autumn leaves in to her mother, who says, 'Oh! how pretty, F.!' to which the girl answers: 'Yes, I knew you'd love the poor things, mother, I couldn't bear to see them dying on the ground'. A few days afterwards she was found standing at a window overlooking the garden crying bitterly at the falling leaves as they fell in considerable numbers."

I need not linger on the products of this vitalising and personifying instinct, as we shall deal with them again when inquiring int children's ideas about nature. Suffice it to say that it is wondrously active and far-reaching, constituting one chief manifestation of childish fancy.

Now it may be asked whether all this analogical extension of images to what seem to us such incongruous objects involves a vivid and illusory apprehension of these as transformed. Is the eyelid realised and even *seen* for the moment as a sort of curtain, the curtain-image blending with and transforming what is present to the eye? Are the pebbles actually viewed as living things condemned to lie stiffly in one place? It is of course hard to say, yet I think a conjectural answer can be given. In this imaginative contemplation of things the child but half observes what is present to his eyes, one or two points only of supreme

[1] See her article, "The History of an Infancy," *Longman's Magazine*, Feb., 1890.

interest in the visible thing, whether those of form, as in assimilating the piano-hammer to the owl, or of action, as the *falling* of the leaf, being selectively alluded to: while assimilative imagination overlaying the visual impression with the image of a similar object does the rest. In this way the actual field of objects is apt to get veiled, transformed by the wizard touch of a lively fancy.

No doubt there are various degrees of illusion here. In his matter-of-fact and really scrutinising mood a child will not confound what is seen with what is imagined: in this case the analogy recalled is distinguished and used as an explanation of what is seen—as when C. observed of the panting dog: 'Dat bow-wow like puff-puff'. On the other hand when another little boy aged three years and nine months seeing the leaves falling exclaimed, "See, mamma, the leaves is flying like dickey-birds and little butterflies," it is hard not to think that the child's fancy for the moment transformed what he saw into these pretty semblances. And one may risk the opinion that, with the little thinking power and controlling force of will which a child possesses, such assimilative activity of imagination always tends to develop a degree of momentary illusion. There is, too, as we shall see later on, abundant evidence to show that children at first quite seriously believe that most things, at least, are alive and have their feelings.

There is another way in which imagination may combine with and transform sensible objects, *viz.*, by what is commonly called association. Mr. Ruskin tells us that when young he associated the name 'crocodile' with the creature so closely that the long series of letters took on something of the look of its lanky body. The same writer speaks of a Dr. Grant, into whose therapeutic hands he fell when a child. "The name (he adds) is always associated in my mind with a brown powder

—rhubarb or the like—of a gritty or acrid nature. . . . The name always sounded to me gr-r-ish and granular."

We can most of us perhaps, recall similar experiences, where colours and sounds, in themselves indifferent, took on either through analogy or association a decidedly repulsive character. How far, one wonders, does this process of transformation of things go in the case of imaginative children? There is some reason to say that it may go very far, and that, too, when there is no strong feeling at work cementing the combined elements. A child's feeling for likeness is commonly keen and subtle, and knowledge of the real relations of things has not yet come to check the impulse to this free far-ranging kind of assimilation. Before the qualities and the connexions of objects are sufficiently known for them to be interesting in themselves, they can only acquire interest through the combining art of childish fancy. And the same is true of associated qualities. A child's ear may not dislike a grating sound, a harsh noise, as our ear dislikes it, merely because of its effect on the sensitive organ. *En revanche* it will like and dislike sounds for a hundred reasons unknown to us, just because the quick strong fancy adding its life to that of the senses gives to their impressions much of their significance and much of their effect.

There is one new field of investigation which is illustrating in a curious way the wizard influence wielded by childish imagination over the things of sense. It is well known that a certain number of people habitually 'colour' the sounds they hear, imagining, for example, the sound of a vowel, or of a musical tone, to have its characteristic tint which they are able to describe accurately. This 'coloured hearing,' as it is called, is always traced back to the dimly recalled age of childhood. Children are now beginning to be tested and it is found that a good proportion possess the faculty. Thus, in some researches on the minds of Boston school-children, it was found that twenty-

one out of fifty-three, or nearly 40 per cent., described the tones of certain instruments as coloured.[1] The particular colour ascribed to an instrument, as also the degree of its brightness, though remaining constant in the case of the same child, varied greatly among different children, so that, for example, one child 'visualised' the tone of a fife as pale or bright, while another imaged it as dark.[2] It is highly probable that both analogy and association play a part here.[3] As was recently suggested to me by a correspondent the instance given by Locke of the analogy between scarlet and the note of a trumpet may easily be due in part at least to association of the tone with the scarlet uniform.

I may add that I once happened to overhear a little girl of six talking to herself about numbers in this wise: "Two is a dark number," "forty is a white number". I questioned her and found that the digits had each its distinctive colour; thus one was white; two, dark; three, white; four, dark; five, pink; and so on. Nine was pointed and dark, eleven dark green, showing that some of the digits were much more distinctly visualised than others. Just three years later I tested her again and found she still visualised the digits, but not quite in the same way. Thus although one and two were white and black and five pink as before, three was now grey, four was red, nine had lost its colour, and eleven oddly enough had turned from dark green to bright yellow. This case suggests that in early life new experiences and associations may modify the tint and shade of sounds. However this be, children's coloured hearing is

[1] G. Stanley Hall, "The Contents of Children's Minds, *Princeton Review*, N.S., 1883, and volume (same title), 1893.

[2] *Ibid.*, p. 265.

[3] This has been well brought out by Professor Flournoy of Geneva in his volume *Des Phénomènes de Synopsie* (audition colorée), chap. ii.

worth noting as the most striking example of the general tendency to overlay impressions of the senses with vivid images. It seems reasonable to suppose that coloured hearing and other allied phenomena, as the picturing of numbers, days of the week, etc., in a certain scheme or diagrammatic arrangement, when they show themselves after childhood are to be viewed as survivals of early fanciful brain-work. This fact taken along with the known vividness of the images in coloured hearing, which in certain cases approximate to sense-perceptions, seems to me to confirm the view here put forth that children's imagination may alter the world of sense in ways which it is hard for our older and stiff-jointed minds to follow.

I have confined myself here to what I have called the *play* of imagination, the magic transmuting of things through the sheer liveliness and wanton activity of childish fancy. How strong, how vivid, how dominating such imaginative transformation may become will of course be seen in cases where violent feeling, especially fear, gives preternatural intensity to the mind's realising power. But this will be better considered later on.

This transformation of the actual surroundings is of course restrained in serious moments, and in intercourse with older and graver folk. There is, however, a region of child-life where it knows no check, where the impulse to deck out the shabby reality with what is bright and gay has all its own way. This region is Play.

Imagination and Play.

The interest of child's play in the present connexion lies in the fact that it is the working out into visible shape of an inner fancy. The actual presentation may be the starting-point of this process of imaginative projection: the child, for example, sees the sand, the shingle and shells, and says, 'Let us play keeping a shop'. Yet this is accidental. The

source of play is the impulse to realise a bright idea: whence, as we shall see by-and-by, its close kinship to art as a whole. This image is the dominating force, it is for the time a veritable *idée fixe*, and everything has to accommodate itself to this. Since the image has to be acted out, it comes into collision with the actual surroundings. Here is the child's opportunity. The floor is instantly mapped out into two hostile territories, the sofa-end becomes a horse, a coach, a ship, or what not, to suit the exigencies of the play.

This stronger movement and wider range of imagination in children's pastime is explained by the characteristic and fundamental impulse of play, the desire to be something, to act a part. The child-adventurer as he personates Robinson Crusoe or other hero steps out of his every-day self and so out of his every-day world. In realising his part he virtually transforms his surroundings, since they take on the look and meaning which the part assigns to them. This is prettily illustrated in one of Mr. Stevenson's child-songs, "The Land of Counterpane," in which a sick child describes the various transformations of the bed-scene :—

> And sometimes for an hour or so
> I watched my leaden soldiers go,
> With different uniforms and drills,
> Among the bed-clothes through the hills;
>
> And sometimes sent my ships in fleets,
> All up and down among the sheets;
> Or brought my trees and houses out,
> And planted cities all about.

Who can say to how many and to what strange play-purposes that stolid unyielding-looking object a sofa-head has been turned by the ingenuity of the childish brain?

The impulse to act a part meets us very early and grows out of the assimilative instinct. The very infant

will, if there is a cup to hand, pretend to drink out of it.[1] Similarly a boy of two will put the stem of his father's pipe into, or, if cautious, near his mouth, and make believe that he is smoking. A little boy not yet two years old would spend a whole wet afternoon "painting" the furniture with the dry end of a bit of rope. In such cases, it is evident, the playing may start from a suggestion supplied by the sight of an object. There is no need to suppose that in this simple kind of imitative play children knowingly act a part. It is surely to misunderstand the essence of play to speak of it as a fully conscious process of imitative acting.[2] A child is one creature when he is truly at play, another when he is bent on astonishing or amusing you. It seems sufficient to say that when at play he is possessed by an idea, and is working this out into visible action. Your notice, your laughter, may bring in a new element of enjoyment; for as we all know, children are apt to be little actors in the full sense, and to aim at producing an impression. Yet the child as little *needs* your flattering observation as the cat needs it, when he plays in the full sense imaginatively, and in make-believe, with his captured mouse, placing it, for example, deliberately under a copper in the scullery, and amusing himself by the half-illusion of losing it. Indeed your intrusion will be just as likely to destroy or at least to diminish the charm of a child's play, if only through your inability to seize his idea, and, what is equally important, to rise to his own point of enthusiasm and illusive realisation. Perhaps, indeed, one may say that the play-instinct is most vigorous and dominant when a child is alone, or at least self-absorbed; for even social play, delightful as it is when all

[1] Of course, as Preyer suggests, this drinking from an empty cup may at first be due to a want of discriminative perception.

[2] M. Compayré seems to go too far in this direction when he talks of the child's play with its doll as a charming comedy of maternity (*L' Evolution intell. et morale de l'Enfant*, p. 274).

the players are attuned, is subject to disturbance through a want of mutual comprehension and a need of half-disillusive explanations.[1]

The essence of children's play is the acting of a part and the realising of a new situation. It is thus, as we shall see more fully by-and-by, akin to dramatic action, only that the child's 'acting' is like M. Jourdain's prose, an unconscious art. The impulse to be something, a sailor, a soldier, a path-finder, or what not, absorbs the child and makes him forget his real surroundings and his actual self. His day-dreams, his solitary and apparently listless wanderings while he mutters mystic words to himself, all illustrate this desire to realise a part. In this playful self-projection a child will become even something non-human, as when he nips the 'bread-and-cheese' shoots off the bushes and fancies himself a horse.[2] It is to be noted that such passing out of one's ordinary self and assuming a foreign existence is confined to the child-player; the cat or the dog, though able, as Mr. Darwin and others have shown, to go through a kind of make-believe game, remaining always within the limits of his ordinary self.

Such play-like transmutation of the self extends beyond what we are accustomed to call play. One little boy of three and a half years who was fond of playing at the useful business of coal-heaving would carry his coal-heaver's dream through the whole day, and on the particular day devoted to this calling would not only refuse to be addressed by any less worthy name, but ask in his prayer to be made a good coal-heaver (instead of the usual 'good boy'). On other days this child lived the life of a robin redbreast, a soldier, and so forth, and bitterly resented his mother's occasional confusion of his personalities. A little

[1] For a good illustration of the disillusive effect of want of enthusiasm in one's playmates, see Tolstoi, *Childhood, Boyhood, Youth*, part i., chap. viii.

[2] See Mrs. Fry, *Uninitiated*, p. 10.

girl aged only one year and ten months insisted upon being addressed by a fancy name, Isabel, when she was put to bed, but would not be called by this name at any other time. She probably passed into what seemed to her another person when she went to bed and gave herself up to sweet 'hypnagogic' reverie.

In the working out of this impulse to realise a part the child's actual surroundings may take a surprisingly small part. Sometimes there is scarcely any adjustment of scene: the child plays out his action with purely imaginary surroundings. Such simple play-actions as going to market to buy imaginary apples occur very early, one mother assuring me that all her children carried them out in the second year before they could talk. Another mother writes of her boy, aged two and a half years: "He amuses himself by pretending things. He will fetch an imaginary cake from a corner, rake together imaginary grass, or fight a battle with imaginary soldiers." This reminds one of Mr. Stevenson's lines:—

> It is he, when you play with your soldiers of tin,
> Who sides with the French and who never can win.

This impulse to invent imaginary surroundings, and more especially to create mythical companions, is very common among lonely and imaginative children. A lady friend, a German, tells me that when she was a little girl, a lonely one of course, she invented a kind of *alter ego*, another girl rather older than herself, whom she named 'Krofa'—why she has forgotten. She made a constant playmate of her, and got all her new ideas from her. Mr. Canton's little heroine took to nursing an invisible 'iccle gaal' (little girl), the image of which she seemed able to project into space.[1] The invention of fictitious persons fills a large space in child-life. Perhaps

[1] *The Invisible Playmate*, p. 33 ff.

if only the young imagination is strong enough there is, as already hinted, more of sweet illusion, of a warm grasp of living reality in this solitary play, where fictitious companions perfectly obedient to the little player's will take the place of less controllable tangible ones. But such purely imaginative make-believe, which derives no help from actual things, is perhaps hardly 'play' in the full sense, but rather an active form of day-dreaming or romancing.[1]

In much of this playful performance all the interference with actual surroundings that the child requires is change of place or scene. Here is a pretty example of this simple type of imaginative play. A child of twenty months, who is accustomed to meet a *bonne* and child in the Jardin du Luxembourg, suddenly leaves the family living-room, pronouncing indifferently well the names Luxembourg, nurse, and child. He goes into the next room, pretends to say "good-day" to his two out-door acquaintances, and then returns and simply narrates what he has been doing.[2] Here the simple act of passing into an adjoining room was enough to secure the needed realisation of the encounter in the garden. The movement into the next room is suggestive. Primarily it meant no doubt the child's manner of realising the out-of-door walk; yet I suspect there was another motive at work. Children love to enact their little play-scenes in some remote spot, withdrawn from notice, where imagination suffers no let from the interference of

[1] I fail to understand what Professor Mark Baldwin means by saying that an only child is wanting in imagination (*op. cit.*, p. 358). In his emphasising of the influence of imitation and external suggestion the writer seems to have overlooked the rather obvious fact that childish imagination in its intenser and more energetic forms means a detachment from the sensible world, and that lonely children are, as more than one autobiography, as well as mother's record, show, particularly imaginative just because of the absence of engaging activities in the real world.

[2] Egger quoted by Compayré, *op. cit.*, pp. 149, 150.

mother, nurse, or other member of the real environment. How many a thrilling exciting play has been carried out in a corner, especially if it be dark, or better still, screened off. The fascination of curtained spaces, as those behind the window curtains, or under the table with the table-cloth hanging low, will be fresh in the memory of all who can recall their childhood.

A step towards a more realistic kind of play-action, in which, as in the modern theatre, imagination is propped up by strong stage effects, is taken when a scene is constructed, the chairs and sofa turned into ships, carriages, a railway train, and so forth.

Yet, after all, the scene is but a very subordinate part of the play. Next to himself in his new part, proudly enjoying the consciousness of being a general, or a schoolmistress, a child who is not content with the pure creations of his phantasy requires the semblance of living companions. In all play he desires somebody, if only as listener to his talk in his new character; and when he does not rise to an invisible auditor, he will talk to such unpromising things as a sponge in the bath, a fire-shovel, a clothes' prop in the garden, and so forth. In more active play, where something has to be done, he generally desires a full companion and assistant, human or animal. And here we meet with what is perhaps the most interesting feature of childish play, the transmutation of the most meagre and least promising of things into complete living forms. I have already alluded to the sofa-head. How many forms of animal life, vigorous and untiring, from the patient donkey up to the untamed horse of the prairies, has this most inert-looking ridge served to image forth to quick boyish perception.

The introduction of these living things seems to illustrate the large compass of the child's realising power. Mr. Ruskin speaks somewhere of "the perfection of child-like imagination, the power of making everything out of

nothing". "The child," he adds, "does not make a pet of a mechanical mouse that runs about the floor. . . . The child falls in love with a quiet thing—with an ugly one—nay, it may be with one to us totally devoid of meaning. The *besoin de croire* precedes the *besoin d'aimer*."

The quotation brings us to the focus where the rays of childish imagination seem to converge, the transformation of toys.

The fact that children make living things out of their toy horses, dogs and the rest, is known to every observer of their ways. To the natural unsceptical eye the boy on his rudely carved "gee-gee" slashing the dull flank with all a boy's glee, looks as if he were realising the joy of actual riding, as if he were possessed with the fancy that the stiff least organic-looking of structures which he strides is a very horse.

The liveliness of this realising imagination is seen in the extraordinary poverty and meagreness of the toys which to their happy possessors are wholly satisfying. Here is a pretty picture of child's play from a German writer:—

> A charming little master of three years sits at his small table busied for a whole hour in a fanciful game with shells. He has three so-called snake-heads in his domain; a large one and two smaller ones: this means two calves and a cow. In a wee tin dish the little farmer has put all kinds of petals, that is the fodder for his numerous and fine cattle. . . . When the play has lasted a while the fodder dish transforms itself into a heavy waggon with hay: the little shells now become little horses, and are put to the shafts to pull the terrible load.[1]

The doll takes a supreme place in this fancy realm of play. It is human and satisfies higher instincts and emotions. As the French poet says, the little girl—

> Rêve le nom de mère en berçant sa poupée.

[1] B. Goltz, *Buch der Kindheit* (4^te^ Aufl.), pp. 4, 5.

I read somewhere recently that the doll is a plaything for girls only: but boys, though they often prefer india-rubber horses and other animals, not infrequently go through a stage of doll-love also, and are hardly less devoted than girls. Endless is the variety of *rôle* assigned to the doll as to the tiny shell in our last picture of play. The doll is the all-important comrade in that *solitude à deux* of which the child, like the adult, is so fond. Mrs. Burnett tells us that sitting holding her doll in the arm-chair of the parlour she would sail across enchanted seas to enchanted islands having all sorts of thrilling adventures. At another time when she wanted to act an Indian chief the doll just as obediently took up the part of squaw.

Very humanely, on the whole, is the little doll-lover wont to use her pet, even though, as George Sand reminds us, there come moments of rage and battering.[1] A little boy of two and a half years asked his mother one day: "Will you give me all my picture-books to show dolly? I don't know which he will like best." He then pointed to each and looked at the doll's face for the answer. He made believe that it selected one, and then gravely showed it all the pictures, saying: "Look here, dolly!" and carefully explaining them.

The doll illustrates the childish attitude towards all toys, the impulse to take them into the innermost and warmest circle of personal intimacy, to make them a living part of himself. A child's language, as we shall see later, points to an early identification of self with belongings. The 'me' and the 'my' are the same, or nearly the same, to a mite of three. This impulse to attach the doll to self, or to embrace it within the self-consciousness or self-feeling, shows itself in odd ways. In the grown-up child, Laura Bridgman, it took the form of putting a bandage like her own over her doll's eyes. This resembles a case of

[1] See the study of George Sand's childhood below, chap. xii.

a girl of six, who when recovering from measles was observed to be busily occupied with her dolls, each of which she painted over with bright red spots. The dolly must do all, and be all that I am: so the child in his warm attachment seems to argue. This feeling of oneness is strengthened by that of exclusive possession, the sense that the child himself is the only one who really knows dolly, can hear her cry when she cries and so forth.[1] It is another manifestation of the same feeling of intimacy and solidarity when a child insists on dolly's being treated by others as courteously as himself. Children will often expect the mother or nurse to kiss and say good-night to their pet or pets—for their hearts are capacious—when she says good-night to themselves.

Here, nobody can surely doubt, we have clearest evidence of play-illusion. The lively imagination endows the inert wooden thing with the warmth of life and love. How large a part is played here by the alchemist, fancy, is known to all observers of children's playthings. The faith and the devotion often seem to increase as the first meretricious charms, the warm tints of the cheek and the lips, the well-shaped nose, the dainty clothes, prematurely fade, and the lovely toy which once kept groups of hungry-looking children gazing long at the shop-window, is reduced to the naked essence of a doll. A child's constancy to his doll when thus stript of exterior charms and degraded to the lowest social stratum of dolldom is one of the sweetest and most humorous things in child-life.

And then what rude unpromising things are adopted as doll-pets. Mrs. Burnett tells us she once saw a dirty mite sitting on a step in a squalid London street, cuddling warmly a little bundle of hay tied round the middle by a string. Here, surely, the *besoin d'aimer* was little if anything behind the *besoin de croire*.

[1] *Cf.* Perez, *L'Art et la Poésie chez l'enfant*, p. 28.

Do any of us really understand this doll-superstition? Writers of a clear long-reaching memory have tried to take us back to childhood, and restore to us for a moment the whole undisturbed trust, the perfect satisfaction of love, which the child brings to its doll. Yet even the imaginative genius of a George Sand is hardly equal, perhaps, to the feat of resuscitating the buried companion of our early days and making it live once more before our eyes.[1] The truth is the doll-illusion is one of the first to pass. There are, I believe, a few sentimental girls who, when they attain the years of enlightenment, make a point of saving their dolls from the general wreckage of toys. Yet I suspect the pets when thus retained are valued more for the outside charm of pretty face and hair, and still more for the lovely clothes, than for the inherent worth of the doll itself, of what we may call the doll-soul which informs it and gives it, for the child, its true beauty and its worth.

Yet if we cannot get inside the old doll-superstition we may study it from the outside, and draw a helpful comparison between it and other known forms of naïve credulity. And here we have the curious fact that the doll exists not only for the child but for the "nature man". Savages, Sir John Lubbock tells us,[2] like toys, such as dolls, Noah's Arks, etc. The same writer remarks that the doll is "a hybrid between the baby and the fetish, and that it exhibits the contradictory characters of its parents". Perhaps the changes of mood towards the doll, of which George Sand writes, illustrate the alternating preponderance of the baby and the fetish half. But as Sir John also remarks, this hybrid is singularly unintelligible to grown-up people, and it seems the part of modesty here to bow to one of nature's mysteries.

It has been suggested to me by Mr. F. Galton that a

[1] For her remarkable analysis of the child's feeling for his doll, see below, chap. xii.

[2] *Origin of Civilisation*, appendix, p. 521.

useful inquiry might be carried out into the relation between a child's preference in the matter of doll or other toy and the degree of his imaginativeness as otherwise shown, *e.g.*, in craving for story, and in romancing. So far as I have inquired I am disposed to think that such a relation exists. A lady who has had a large experience as a Kindergarten teacher tells me that children who play with rough shapeless things, and readily endow with life the ball, and so forth, in Kindergarten games are imaginative in other ways. Here is an example :—

P. Mc. L., a girl, observed from three and a half to five years of age, was a highly imaginative child as shown by the power of make-believe in play. The ball of soft india-rubber was to her on the teacher's suggestion, say, a baby, and on it she would lavish all her tenderness, kissing it, feeding it, washing its face, dressing it in her pinafore, etc. So thorough was her delight in the play that the less imaginative children around her would suspend their play at 'babies' and watch her with interest. Whilst a most indifferent restless child at lessons, whenever a story was told she sat motionless and wide-eyed till the close.

Children sometimes make babies of their younger brothers and sisters, going through all the sweet solicitous offices which others are wont to carry out on their dolls.[1] This suggests another and closely related question: Do the more imaginative children prefer the inert, ugly doll to the living child in these nursing pastimes? What is the real relation in the child's play between the toy-companion, the doll or india-rubber dog, and the living companion? Again, a child will occasionally play with an imaginary doll.[2] How is this impulse related to the other two forms of doll-passion? These points would well repay a careful investigation.

The vivification of the doll or toy animal is the out-

[1] Baldwin gives a pretty example of this *op. cit.*, p 362.

[2] An example is given by Paola Lombroso, *Psicologia del Bambino*, p. 126.

come of the play-impulse, and this, as we have seen, is an impulse to act out, to realise an idea in outward show. The absorption in the idea and its outward expression serves, as in the case of the hypnotised subject, to blot out the incongruities of scene and action which you or I, a cold observer, would note. The play-idea works transformingly by a process analogous to what is called auto-suggestion.

How complete this play-illusion may become here can be seen in more ways than one. We see it in the jealous insistence already illustrated that everything shall for the time pass over from the every-day world into the new fancy-created one. "About the age of four," writes M. Egger of his boys, "Felix is playing at being coachman, Emile happens to return home at the moment. In announcing his brother, Felix does not say, 'Emile is come,' he says 'The brother of the coachman is come'."[1]

As we saw above, the child's absorption in his new play-world is shown by his imperious demand that others, as his mother, shall recognise his new character. Pestalozzi's little boy, aged three years and a half, was one day playing at being butcher, when his mother called him by his usual diminutive, 'Jacobli'. He at once replied: "No, no; you should call me butcher now".[2] Here is a story to the same effect, sent me by a mother. A little girl of four was playing 'shops' with her younger sister. "The elder one was shopman at the time I came into her room and kissed her. She broke out into piteous sobs, I could not understand why. At last she sobbed out: 'Mother, you never kiss the man in the shop'. I had with my kiss quite spoilt her illusion."

The intensity of the realising power of imagination in play is seen too in the stickling for fidelity to the original in all

[1] Quoted by Compayré, *op. cit.*, p. 150.
[2] De Guimps' *Life of Pestalozzi* (Engl. trans.), p. 41.

playful reproduction, whether of scenes observed in every-day life or of what has been narrated. The same little boy who showed his picture-books to dolly was, we are told, when two years and eight months old, fond of imagining that he was Priest, his grandmamma's coachman. "He drives his toy horse from the arm-chair as a carriage, getting down every minute to 'let the ladies out,' or to 'go shopping'. The make-believe extends to his insisting on the reins being held while he gets down and so forth." The same thing shows itself in acting out stories. The full enjoyment of the realisation depends on the faithful reproduction, on the suitable outward embodiment of the distinct idea in the child's mind.

The following anecdote bears another kind of testimony, a most winsome kind, to the realising power of play. One day two sisters said to one another: "Let us play being sisters". This might well sound insane enough to hasty ears; but is it not really eloquent? To me it suggests that the girls felt they were not realising their sisterhood, enjoying all the possible sweets of it, as they wanted to do—perhaps there had been a quarrel and a supervening childish coldness. And they felt too that the way to get this more vivid sense of what they were, or ought to be, one to the other, was by playing the part, by acting a scene in which they would come close to one another in warm sympathetic fellowship.

But there is still another, and some will think a more conclusive way of satisfying ourselves of the reality of the play-illusion. The child finds himself confronted by the unbelieving adult who questions what he says about the doll's crying and so forth. One little girl, aged one year and nine months, when asked by her mother how her doll, who had lost his arms, ate his dinner without hands, quickly changed the subject. She did not apparently like having difficulties brought into her happy play-world. But the true tenacious faith shows itself later when the child understands

these sceptical questionings of others, and sees that they are poking fun at his play and his day-dreamings. Such cruel quizzings of his make-believe are apt to cut him to the quick. I have heard of children who will cry if a stranger suddenly enters the nursery when they are hard at play, and shows himself unsympathetic and critical.

Play may produce not only this vivid imaginative realisation at the time, but a sort of mild permanent illusion. Sometimes it is a toy-horse, in one case communicated to me it was a funny-looking toy-lion, more frequently it is the human effigy, the doll, which as the result of successive acts of imaginative vivification gets taken up into the relation of permanent companion and pet. Clusters of happy associations gather about it, investing it with a lasting vitality and character. A mother once asked her boy of two and a half years if his doll was a boy or a girl. He said at first, "A boy," but presently correcting himself added, "I think it is a baby". Here we have a challenging of the inner conviction by a question, a moment of reflexion, and as a result of this, an unambiguous confession of faith that the doll had its place in the living human family.

Here is a more stubborn exhibition on the part of another boy of this lasting faith in the plaything called out by others' sceptical attitude. "When (writes a lady correspondent) he was just over two years old L. began to speak of a favourite wooden horse (Dobbin) as if it were a real living creature. 'No tarpenter (carpenter) made Dobbin,' he would say, 'he is not wooden but kin (skin) and bones and Dod (God) made him.' If any one said 'it' in speaking of the horse his wrath was instantly aroused, and he would shout indignantly: 'It! You mutt'ent tay "it," you mut tay *he*'. He imagined the horse was possessed of every virtue and it was strange to see what an influence this creature of his own imagination exercised over him. If there was anything L. particularly wished not to do his mother had

only to say: 'Dobbin would like you to do this,' and it was done without a murmur."

There is another domain of childish activity closely bordering on that of play where a like suffusion of the world of sense by imagination meets us. I refer to pictures and artistic representations generally. If in the case of adults there is a half illusion, a kind of oneirotic or trance condition induced by a picture or dramatic spectacle, in the case of the less-instructed child the illusion is apt to become more complete. A picture seems very much of a toy to a child. A baby of eight or nine months will talk to a picture as to a living thing; and something of this tendency to make a fetish of a drawing survives much later. But it will be more convenient to deal with the attitude of the child-mind towards pictorial representations in connexion with his art-tendencies.

The imaginative transformation of things, more particularly the endowing of lifeless things with life, enters, I believe, into all children's pastimes. Whence comes the perennial charm, the undying popularity, of the hoop? Is not the interest here due to the circumstance that the child controls a moving thing which in the capricious variations of its course simulates a free will of its own? As I understand it, trundling the hoop is imaginative play hardly less than riding the horse-stick and slashing its flanks. Who again that can recall early experiences will doubt that the delight of flying the kite, of watching it as it sways to the right or to the left, threatening to fall head-foremost to earth, and most of all perhaps of sending a paper 'messenger' along the string to the wee thing poised like a bird so terribly far away in the blue sky, is the delight of imaginative play? The same is true of sailing boats, and other pastimes of early childhood.

I have here touched merely on the imaginative and half-illusory side of children's play. It is to be remembered, however, that play is much more than this, and reflects

much more of the childish mind. Play proper as distinguished from mere day-dreaming is activity and imitative activity; and children show marked differences in the energy of this activity, and in the quickness and closeness of their responses to the model actions of the real nurse, real coachman, and so forth. That is to say, observation of others will count here. Again, while social surroundings, opportunities for imitation, are important, they are by no means all-decisive. Children show a curious selectiveness in their imitative games, germs of differential interest, sexual and individual, revealing themselves quite early. It may be added that a child with few opportunities of observation may get quite enough play-material from storyland. But play is never merely imitative, save indeed in the case of unintelligent and 'stoggy' children. It is a bright invention into which all the gifts of childish intelligence may pour themselves. The relation of play to art will engage us later on.

Free Projection of Fancies.

In play and the kindred forms of imaginative activity just dealt with, we have been concerned with imaginative realisation in its connexion with sense-perception. And here, it is to be noticed, there is a kind of reciprocal action between sense and imagination. On the one hand, as we have seen, imagination interposes a coloured medium, so to speak, between the eye and the object, so that it becomes transformed and beautified. On the other hand, in what is commonly called playing, imaginative activity receives valuable aid from the senses. The stump of a doll, woefully unlike as it is to what the child's fancy makes it, is yet a sensible fact, and as such gives support and substance to the realising impulse.

Now this fact that imagination derives support from sense leads to a habit of projecting fancies, and giving them an external and local habitation. In this way the idea

receives a certain solidity and fixity through its embodiment in the real physical world.

This incorporation of images in the system of the real world may, like play, start at one of two ends. On the one hand, the external world, so far as it is only dimly perceived, excites wonder, curiosity, and the desire to fill in the blank spaces with at least the semblance of knowledge. Here distance exercises a strange fascination. The remote chain of hills faintly visible from the child's home, has been again and again endowed by his enriching fancy with all manner of wondrous scenery and peopled by all manner of strange creatures. The unapproachable sky—which to the little one, so often on his back, is much more of a visible object than to us—with its wonders of blue expanse and cloudland, of stars and changeful moon, is wont to occupy his mind, his bright fancy quite spontaneously filling out this big upper world with appropriate forms.

This stimulating effect of the half-perceivable is seen in still greater intensity in the case of what is hidden from sight. The spell cast on the young mind by the mystery of holes, and especially of dark woods, and the like, is known to all. C.'s peopling of a dark wood with his *bêtes noires* the wolves illustrates this tendency.

"What (writes a German author already quoted) all childish fancy has almost without exception in common, is the idea of a wholly new and unheard-of world behind the remote horizon, behind woods, lakes and hills, and all objects reached by the eye. When I was a child and we played hide and seek in the barn, I always felt that there must or might be behind every bundle of straw, and especially in the corners, something unheard of lying hidden. And yet I had no profane curiosity, no desire to experiment by turning over the bundle of straw. It was just a fancy, and though I half recognised it as such it was lively enough to engage me as a reality." The same writer goes on to describe how his imagination ever

occupied itself with what lay behind the long stretch of wood which closed in a large part of his child's horizon.[1]

This imaginative filling up of the remote and the hidden recesses of the outer world is subject to manifold stimulating influences from the region of feeling. We know that all vivid imagination is charged with emotion, and this is emphatically true of children's phantasies. The unseen, the hidden, contains unknown possibilities, something awful, terrible, it may be, to make the timid wee thing shudder in anticipatory vision, or wondrously and surprisingly beautiful. How far the childish attitude is from intellectual curiosity is seen in the remark of Goltz, that no impious attempt is made to probe the mystery.

The other way in which this happy fusion of fancy with incomplete perception may be effected is through the working of the impulse to give outward embodiment to vivid and persistent images. All play, as we have seen, is an illustration of the impulse, and certain kinds of play show the working of the impulse in its purity. It extends, however, beyond the limits of what is commonly known as play. The instance quoted above, the peopling of a certain wood with wolves by the child C., was of course due in part to the fact that the small impressionable brain was at this time much occupied with the idea of the wolf. Dickens and others have told us how when children they were wont to project into the real world the lively images acquired from storyland. When suitable objects present themselves the images are naturally enough linked on to these. Thus Dickens writes: "Every barn in the neighbourhood, every stone of the church, every foot of the churchyard had some association of its own in my mind connected with these books (*Roderic Random*, *Tom Jones*, *Gil Blas*, etc.), and stood for some locality made famous in them. I have seen Tom Pipes go climbing up the church

[1] B. Goltz, *Das Buch der Kindheit* (4te Aufl.), p. 267.

steeple; I have watched Strap with the knapsack on his back stopping to rest himself on the wicket-gate."[1]

Along with this attachment of images to definite objects there goes a good deal of vague localisation in dim half-realised quarters of space. The supernatural beings, the fairies, the bogies, and the rest, are, as might be expected, relegated to these obscure and impenetrable regions. It would be worth while perhaps to collect a children's comparative mythology, if only to see what different localities, geographic and cosmic, the childish mind is apt to assign to his fabulous beings. The poor fairies seem to have been forced to find an abode in most dissimilar regions. The boy C. selected the wall of his bedroom—hardly a dignified abode, though it had the merit of being within reach of his prayers. A child less bent on turning the superior personages to practical account will set them in some remoter quarter, in a vast forest, or deep cavern, on a distant hill, or higher up in the blue above the birds. But systems of child-mythology will occupy us again.

Imagination and Storyland.

We may now pass to a freer region of imaginative activity where the child's mind gives life and reality to its images without incorporating them into the outer sensible world, even to the extent of talking to invisible playmates. The world of story, as distinct from that of play, is the great illustration of this detached activity of fancy.

The entrance into storyland can only take place when the key of language is put into the child's hand. A story is a verbal representation of a scene or action, and the process of imaginative realisation depends in this case on the stimulating effect of words in their association with ideas. Now a word has not for a child the peculiar force of an imitative sensuous impression, say that of a picture.

[1] Quoted by Forster, *Life of Charles Dickens*, chap. i.

The toy, the picture, being, however roughly, a likeness or show, brings the idea before the child's eyes in a way in which the word-symbol cannot do. Yet we may easily underestimate the stimulating effect of words on children's minds, which are much more tender and susceptible than we are wont to suppose. To call out to a child, 'Bow, wow!' or 'Policeman!' may be to excite in his mind a vivid image which is in itself an approach to a complete sensuous realisation of the thing. We cannot understand the fascination of a story for children save by remembering that for their young minds, quick to imagine and unversed in abstract reflexion, words are not dead thought-symbols, but truly alive and perhaps "winged" as the old Greeks called them.

It may not be easy to explain fully this stimulating power of words on the childish mind. There is some reason to say that in these early days spoken words as sounds for the ear have in themselves something of the immediate objective reality of all sense-impressions, so that to name a thing is in a sense to make it present. However this be, words as sense-presentations have a powerful suggestive effect on children's imagination, calling up particularly vivid images of the objects named. The effect is probably aided by the child's nascent feeling of reverence for another's words as authoritative utterances.

This impulse to realise words makes the child a listener much more frequently than we suppose. How often is the mother surprised and amused at a question put by her child about something said in his presence to a servant, a visitor, or a workman; something which in her grown-up way she assumed would not be of the slightest interest to him. In this manner, words soon become a great power in the new wondering life of a child. They lodge like flying seedlings in the fertile brain, and shoot up into strange imaginative growths. But of this more by-and-by.

This profound and lasting effect of words is nowhere more clearly seen than in the spell of the story. We grown-up people are wont to flatter ourselves that we read stories: the child, if he could know what we call reading, would laugh at it. With what deftness does the little brain disentangle the language, often strange and puzzling enough, reducing it by a secret child-art to simplicity and to reality. A mother when reading a poem to her boy of six, ventured to remark, "I'm afraid you can't understand it, dear," for which she got duly snubbed by her little master in this fashion: "Oh, yes, I can very well, if only you would not explain". The explaining is resented because it interrupts the child's own spontaneous image-building, wherein lies the charm, because it rudely breaks the spell of the illusion, calling off the attention from the vision he sees in the word-crystal, which is all he cares about, to the cold lifeless crystal itself.

And what a bright vision it is that is there gained. How clearly scene after scene of the dissolving view unfolds itself. How thrilling the anticipation of the next unknown, undiscernible stage in the history. Perhaps no one has given us a better account of the state of absorption in storyland, the oneirotic or dream-like condition of complete withdrawal from the world of sense into an inner world of fancy, than Thackeray. In one of his delightful "Roundabout Papers," he thus writes of the experiences of early boyhood. "Hush! I never read quite to the end of my first *Scottish Chiefs*. I couldn't. I peeped in an alarmed furtive manner at some of the closing pages. . . . Oh, novels, sweet and delicious as the raspberry open tarts of budding boyhood! Do I forget one night after prayers (when we under-boys were sent to bed) lingering at my cupboard to read one little half-page more of my dear Walter Scott—and down came the monitor's dictionary on my head!"

As one thinks of the deep delights of these first

excursions into storyland one almost envies the lucky boys whom the young Charles Dickens held spellbound with his tales.

The intensity of the delight is seen in the greed it generates. Who can resist the child's hungry demand for a story? Edgar Quinet in his *Histoire de mes Idées* tells how when a child an old corporal came to drill him. He had been taken prisoner by the Spaniards and placed on an inaccessible island. Edgar loved to hear the thrilling story of the old soldier's adventures, and scarcely was the narrative finished when the greedy boy would exclaim, "Encore une fois!" Heine's delight when a boy at Düsseldorf in drinking in the stories of Napoleon's exploits from his drummer is another well-known illustration.

Through the perfect gift of visual realisation which a child brings to it the verbal narrative becomes a record of fact, a true history. The intense enjoyment which is bound up with this process of imaginative realisation makes children jealously exact as to accuracy in repetition. The boy C. when a story was repeated to him used to resent even a small alteration of the text. Woe to the unfortunate mother who in telling one of the good stock nursery tales varies a detail. One such, a friend of mine, repeating 'Puss in Boots' inadvertently made the hero sit on a chair instead of on a box to pull on his boots. She was greeted by a sharp volley of 'No's!' The same lady tells me that when narrating the story of 'Beauty and the Beast' for the second time only she forgot in describing the effect of the Beast's sighing to add after the words 'till the glasses on the table shake' 'and the candles are nearly blown out'; whereupon the severe little listener at once stopped the narrator and supplied the interesting detail. The exacting memory of childhood in the matter of stories is the product of a full detailed realisation. In the case just quoted the reality of the story was contradicted by substituting a stupid conventional chair for

the box, and by omitting the striking incident of the candles.

Happy age of childhood, when a new and wondrous world, created wholly by the magic of a lively phantasy, rivals in brightness, in distinctness of detail, aye, and in steadfastness too, the nearest spaces of the world on which the bodily eye looks out, before reflexion has begun to draw a hard dividing line between the domains of historical truth and fiction.

As the demand for faithful repetition of story shows, the imaginative realisation continues when the story is no longer heard or read. It has added something to the child's inner supplementary world, given him one more lovely region in which he may live blissful moments. The return of the young mind to the persons and scenes of story is forcibly illustrated in the impulse, already touched on, to act out in play the parts of this and that heroic figure. With many children any narrative which holds the imagination delightfully enthralled is likely to become more fully realised in a visible embodiment. For instance, a child of five years, when told a story of four men going along a railway to stop a train before it neared a bridge which was on fire, at once proceeded to play the incident with his toy train. Here we see how story by contributing lively images to the child's brain becomes one main stimulative and guiding influence in the domain of play. In like manner the images born of story may, as in the case of Dickens, attach themselves permanently to particular localities and objects.

To this lively imaginative reception of what is told him the child is apt very soon to join his own free inventions of figures, human, superhuman, or subhuman. The higher qualities of this invention properly come under the head of child-art, and will have to be considered in another chapter. Here we may glance at these inventions as illustrating the realising power of the child's imagination.

This invention appears in a sporadic manner in occasional 'romancings' which may set out from some observation of the senses. A little boy aged three and a half years seeing a tramp limping along with a bad leg exclaimed: "Look at that poor ole man, mamma, he has dot (got) a bad leg". Then romancing, as he was now wont to do: "He dot on a very big 'orse, and he fell off on some great big stone, and he hurt his poor leg a id he had to get a big stick. We must make it well." Then after a thoughtful pause: "Mamma, go and kiss the place and put some powdey (powder) on it and make it well like you do to I". The unmistakable childish seriousness here, the outflow of young compassion, and the charming enforcement of the nursery prescription, all point to a vivid realisation of this extemporised little romance. This child was moreover more than commonly tender-hearted, and perhaps the more exposed on that account to such amiable self-deception. Another small boy when a little over two years, happening to hear a buzzing on the window, said: "Mamma, bumble-bee in a window says it wants a yump (lump) of sugar": then shaking his head sternly, added: "Soon make you heat-spots, bumble-bee". Other examples of this romancing will be met with in the notes on the child C.

In such simple fashion does the child build up a tiny myth on the basis of some passing impression, supplying out of his quaintly stored fancy unlooked-for adornments to the homely occurrences of every-day life.

Partly by taking in and fully realising the wonders of story, partly by the independent play of an inventive imagination, children's minds pass under the dominion of more or less enduring myths. The princes and princesses and dwarfs and gnomes of fairy-tale, the worker of Christmas miracles, Santa Claus or Father Christmas, as well as the beings fashioned by the child's imagination on the model of those he knows from story, these live on like the people of

the every-day world, are apt to appear in dreams, in the dark, at odd dreamy moments when the things of sense lose their hold, bringing into the child's life golden sunlight or black awful shadows, the most real of all realities.

This childish belief in myth is often curiously tenacious. A father was once surprised to find that his boy aged five years and ten months continued naïvely to believe in the real personality of Santa Claus. It was Christmastide and the father, in order to test the child's credulity, put his own pocket-knife into the stocking which Santa Claus was supposed to fill. The child, though he knew his father's knife very well, did not in the least suspect that the knife he found in the stocking had been placed there by human han 's, but expressed himself as pleased that Santa Claus had sent him one like his father's. When his father followed this up by telling him that he had lost his knife, and by searching for it in the boy's presence, the latter asked whether Santa Claus had stolen the knife—thus showing how its close similarity to the knife he had received had impressed him, though he would not for a moment doubt the fact of its coming from the mysterious personage. It might be thought that this child was particularly stupid. On the contrary he was well above the average in intelligence. In proof of this I may relate that the Christmas before this, that is to say when he was under five years, he was the only one among thirty children who recognised his uncle when extremely well disguised as Father Christmas. When asked by his father why he thought it was his uncle, he said at first he didn't know, but thinking a moment he added, "I don't see who else there is," showing that he had reasoned out his belief by a method of exclusion.

Of course it will be said that I am here selecting exceptional cases of childish imagination. I am quite ready to admit the probability of this. The best examples of any trait of the young mind will obviously be supplied by those

who have most of this trait. Yet I very much suspect that ordinary and even dull children are wont to hide away a good deal of such superstitious belief. "One of the greatest pleasures of childhood," says Oliver Wendell Holmes in *The Poet at the Breakfast Table*, "is found in the mysteries which it hides from the scepticism of the elders and works up into small mythologies of its own."

I have treated the myths of children as a product of pure imagination, of the impulse to realise in vivid images what lies away from and above the world of sense. Yet, as we shall see later, they are really more than this. They contain, like the myths of primitive man, a true germ of thought.

In George Sand's recollections we shall meet with a striking illustration of how the vivid imagination of supernatural beings is followed up by a reflective and half-scientific effort to connect the myth with the facts and laws of the known world. This infusion of childish reason into wonderland, the first crude attempt to adjust belief to belief, and to find points of attachment for the much-loved myth in the matter-of-fact world, is apt to lead, as we shall see, to a good deal that is very quaint and characteristic in the child's mythology.

The conclusion which observation of children leads us to is that, as compared with adults, they are endowed with strong imaginative power, the activity of which leads to a surprisingly intense inner realisation of what lies above sense. For the child, as for primitive man, reality is a projection of fancy as well as an assurance of sense.

Now this conclusion is, I think, greatly strengthened by all that we know of the conditions of the brain-life in children, and of the many perturbations to which it is liable. With respect to this brain-life we have to remember that in the first years the higher cortical centres which take part in the co-ordinative and regulative processes of thought and volition are but very imperfectly developed. Hence

the centres concerned in imagination—which, if not identical with what used to be called the sensorium or seat of sensation, are in closest connexion with it—are not checked and inhibited by the action of the higher centres as is the case with us. By exercising a volitional control over the flow of our ideas, we are able to reason away a fancy, and generally to guard ourselves against error. In young children all ideas that grow clear and full under the stimulus of a strong interest are apt to persist and to become preternaturally vivid. As has been suggested by more than one recent writer on childhood and education, the brain of a child has a slight measure of that susceptibility to powerful illusory suggestion which characterises the brain of a hypnotised subject. Savages, who show so striking a resemblance to children in the vivacity and the dominance of their fancy, are probably much nearer to the child than to the civilised adult in the condition of their brain.

This preternatural liveliness of the images of the imperfectly developed brain exposes children, as we know, to disturbing illusion. The effect of bad dreams, of intense feeling, particularly of fear, in developing illusory belief in sensitive and delicate children is familiar enough, and will be dealt with again later on. Some parents feel the dangers of such disturbance so keenly that they think it best to cut their children off from the world of fiction altogether. But this is surely an error. For one thing children who are strongly imaginative will be certain to indulge their fancies, as the Brontë girls did, even when no fiction is supplied and their eager little minds are thrown on the matter-of-fact newspaper. A child needs not to be deprived of story altogether, but to be supplied with bright and happy stories, in which the gruesome element is subordinate. Specially sensitive children should, I think, be guarded against much that from an older point of view is classic, as some of the 'creepy' stories in Grimm, though there are no doubt hardy young nerves which

can thrill enjoyably under these horrors. As to confusing a child's sense of truth by indulging him in story, the evil seems to me problematic, and, if it exists at all, only slight and temporary. But I hope to touch on this aspect of the subject in the next chapter.

III.

THE DAWN OF REASON.

The Process of Thought.

To treat the child's mind as merely a harbourer of fancies, as completely subject to the illusive spell of its bright imagery, would be the grossest injustice. It is one of the reputable characteristics of childhood that it manages to combine with so much vivacity and force of imagination a perfectly grave matter-of-fact look-out on the actual world.

And here I should like to correct the common supposition that children are imaginative *or* observant of their surroundings, but not both. I have no doubt that there are many children who show a marked preponderance of the one or of the other tendency: there is the fanciful and dreamy child, and the matter-of-fact child with a tenacious grasp on the realities of things. I have but little doubt, too, that in the case of children who show the two tendencies, the one or the other is apt to preponderate at a certain stage of development: many boys, for example, have their dreamy period, and then become almost stolidly practical. All that I am concerned to make out here is that the two tendencies do co-exist, and as a number of parents have assured me may co-exist each in a high degree of intensity in the same child; the really intelligent children, boys as well as girls, being dispassionate and shrewd inquirers into the make of the actual world while ardently engaged in fashioning a brighter one.

The two tendencies belong to two moods, one of which may be regent for days together, though they often alternate with astonishing rapidity. More particularly the serious matter-of-fact mood readily passes, as if in relief from mental tension, into the playful fanciful one, as when the tiny student, deep in the stupendous lore of the spelling-book, suddenly dashes off to some fanciful conceit suggested by the 'funny' look of a particular word or letter.

The child not only observes but begins to reflect on what he observes, and does his best to understand the puzzling scene which meets his eye. And all this gives seriousness, a deep and admirable seriousness, to his attitude. So much is this the case that if we were called on to portray the typical mental posture of the child we might probably do so by drawing the erect little figure of a boy, as with widely open eye he gazes at some new wonder, or listens to some new report of his surroundings from a mother's lips. Hence, one may forgive the touch of exaggeration when Mr. Bret Harte writes: "All those who have made a loving study of the young human animal will, I think, admit that its dominant expression is *gravity* and not playfulness".[1] We may now turn to this graver side of the young intelligence.

Here, again, I may as well say that I prefer to observe the phenomenon in its clearer and fuller manifestations, that is to say, to study the serious intelligence of the child in the most intelligent children, or at least in children whose minds are most active. This does not mean that we shall be on the look-out for precocious wisdom or priggish smartness. On the contrary, since it is childish intelligence as such that we are in search of, we shall take pains to avoid as far as possible any encounter with prodigies. By these I mean the unfortunate little people whose

[1] Works, vol. iii., p. 396.

mental limbs have been twisted out of beautiful child-shape by the hands of those in whom the better instincts of the parent have been outweighed by the ambition of the showman. We shall seek more particularly for spontaneous openings of the mental flower under the warming rays of a true mother's love, for confidential whisperings of child-thought to her ever-attentive and ever-tolerant ear.

In order fully to understand the serious work of childish intelligence, we ought to begin with a study of early observation. But I must pass by this interesting subject with only a remark or two.

Much has been written on the deeply concentrated all-absorbing scrutiny of things by the young eye. But to say how much an infant of nine months really sees when he fixes his wide eyes on some new object, is a matter of great uncertainty. What seems certain, is that the infant has to learn to see things, and very probably takes what seems to us an unnecessarily long time to see them at all completely.

We find when the child grows and can give an account of what he notes that his observation, while often surprisingly minute in particular directions, is highly restricted as to its directions, being narrowly confined within the limits of a few dominant attractions. Thus a child will sometimes be so impressed with the colour of an object as almost to ignore its form. A little girl of eighteen months, who knew lambs and called them 'lammies,' on seeing two black ones in a field among some white ones called out, "Eh! doggie, doggie!" The likeness of colour to the black dog overpowered the likeness in form to the other lambs close by. Within the limits of form-perception again, we may remark the tendency to a one-sided mode of observing things which has in it something of an abstract quality. For the child C. the pointed head was the main essential feature of the dog, and he recognised this in a bit of

biscuit. We shall find further examples of this abstract observation when we come to consider children's drawings.

This same partiality of observation comes out very clearly in a good deal of the early assimilation or apperception already referred to. The reason why it is so easy for a child to superimpose a fanciful analogy on an object of sense, is that his mind is untroubled by all the complexity of this object. It fastens on some salient feature of supreme attractiveness or interest, and flies away on the wings of this, to what seems to us a far-off resemblance.

This detaching or selective activity in children's observation, which in a manner is a defect, is also a point of superiority. It has this in common with the observation of the poet, that it is wholly engrossed with what is valuable. Thus one main feature of the eye-lid is certainly that it opens and closes like a curtain; and it is its resemblance to the mysterious curtain shutting out the daylight, which makes it a matter of absorbing interest. Here, then, we have, as we shall see more fully presently, a true germ of thought-activity embedded in the very process of childish observation and recognition. For thought is precisely a more methodical process of bringing the concrete object into its relations to other things.

Yet children's observation does not remain at this height of grand selectiveness. The pressure of practical needs tends to bring it down to our familiar level. A child finds himself compelled to distinguish things and name them as others do. The lamb and the dog, for example, have to be distinguished by a *complex* of marks in which the supremely interesting detail of colour holds a quite subordinate place. Individual things, too, have to be distinguished, if only for the purpose of drawing the line between what is 'mine' and 'not mine'. The boy's mother, his cup, his hat, must be readily recognised, and this necessity forces the attention to grasp a plurality of marks. Thus the mother cannot always be recognised by her

height alone, as when she happens to be sitting, nor by her hair alone, as when she happens to have her hat on, so that the weighty problem of recognising her always compels the child to note a number of distinctive marks, some of which will in every case be available.

When once the eye has begun to note differences it makes rapid progress. This is particularly true where the development of a special interest in a group of things leads to a habit of concentration. Thus little boys when the 'railway interest' seizes them are apt to be finely observant of the differences between this and that engine and so forth. A boy aged two years and eleven months, after travelling from Dublin to Cork, and thence by another railway, asked his mother if she had noticed the difference in the make of the rails on the two lines. Of course she had not, though she afterwards ascertained that there was a slight difference which the boy's keener eye had detected.

The fineness of a child's distinguishing observation is well illustrated in his recognition of small drawings and photographs, as when a child of two will pick out the likeness of his father from a small *carte de visite* group. But this side of children's recognition will occupy us later on.

Such fine and ready recognition as that just illustrated shows not merely a penetrating observation of what is distinctive and characteristic, but also a measure of a higher power, that of seizing in one act of attention a complex or group of such marks. In truth, children's observation, when close and methodical, as it is apt to be under the stimulus of a powerful interest, is often surprisingly full as well as exact. The boy, John Ruskin, was not the only one who could look for hours together at such an object as flowing water, noting all its changing features. A mother writes to me that her boy, when three and a half years old, received a picture-book, 'The Railway Train,' and looked at it almost uninterruptedly for a week, retaining it even at meals "At the end of this time he had grasped the smallest

detail in every picture." By such occasional fits of fine exhaustive inspection, a child of the more intelligent sort will now and again come surprisingly near that higher type of observation, at once minute and comprehensive, which subserves, in somewhat different ways, scientific discovery and artistic representation. Many parents when watching these exceptional heights of childish scrutiny have indulged in fond dreams of future greatness. Yet these achievements are, alas, often limited to a certain stage of intellectual progress, and are apt to disappear when the bookish days come on, and the child loses himself hours together over his favourite stories. And in any case the germ of promise must possess a wondrous vitality if it resists all the efforts of our school-system to weed out from the garden of the mind anything so profitless as an observing faculty.

Next to this work of observation we must include in the pre-conditions of childish thought at its best a lively retention of what is observed. Everybody who has talked much with little children must have been struck by the tenacity of their memories, their power of recalling after considerable intervals small features of an object or small incidents which others hardly noted, or, if they noted them at the time, have since forgotten. Stories of this surprising recollection may be obtained in abundance. A little girl when only nine months old was on a walk shown some lambs at the gate of a field. On being taken the same road three weeks later she surprised her mother by calling out just before arriving at the gate 'Baa, baa!' Later on children will remember through much longer intervals. A little boy aged two years and ten months when taken to Italy a second time after four or five months' absence, remembered the smallest details, *e.g.*, how the grapes were cut, how the wine was made and so forth.

The gradual gathering of a store of such clear memory-images is a necessary preliminary to reflexion and thought. It is because the child remembers as well as sees, remember-

ing even while he sees, that he grows thoughtful, inquiring about the meaning and reason of this and that, or boldly venturing on some explanation of his own. And just as the child's mind must take on many pictures of things before it reflects upon and tries to understand the world, so it must collect and arrange pictures of the successive scenes and events of its life, before it will grow self-conscious and reflect upon its own strange existence.

The only other pre-condition of this primitive thoughtfulness is that imaginative activity which we have already considered on its playful and pleasurable side. We are learning at last that the inventive phantasy of a child, prodigal as it is of delightful illusions, is also a valuable contributor to this sober work of thought. It is just because the young mind is so mobile and agile, passing far beyond the narrow confines of the actual in imaginative conjecture of what lies hidden in the remote, that it begins to *think*, that is, to reason about the causes of things. In the history of the individual as of the race, thought, even the abstract thought of science, grows out of the free play of imagination. The myth is at once a picturesque fancy, and a crude attempt at an explanation. This primitive thought is indeed so compact of bright picturesque imagery that we with our scientifically trained minds might easily overlook its inherent thoughtfulness. Yet a close inspection shows us that it contains the essential characteristics of thought, an impulse to comprehend things, to reduce the confusing multiplicity to order and system.

We must not hope to trace clearly the lines of this first child-thought. The earliest attitude of the wakening intelligence towards the confusion of novelties, which for us has become a world, is presumably indescribable, and further, by the time that a child comes to the use of w rds and can communicate his thoughts, in a broken way at least, the scene is already losing something of its first strangeness, the organising work of experience has begun. Yet though

we cannot expect to get back to the primal wonderment we can catch glimpses of that later wonderment which arises when instruction supplements the senses, and ideas begin to form themselves of a vast unknown in space and time, of the changefulness of things, and of that mystery of mysteries the beginning of things. The study of this child-thought as it tries to utter itself in our clumsy speech will well repay us. Only we must be ever on the alert lest we read too much into these early utterances, forgetting that the child's first tentative use of words is very apt to mislead.

The child first dimly reveals himself as thinker in the practical domain. In the evolution of the race the reasoning faculty has been first quickened into action by the ferment of instinctive craving and striving. Man began to reflect on the connexions of things in order to supply himself with food, to ward off cold and other evils. So with the child. Before the age of speech we may observe him thinking out rapidly as occasion arises some new practical expedient, as, for example, seizing a clothes-pin or other available aid in order to reach a toy that has slipped out of his reach; or clutching at our dress and pulling the chair by way of signifying to us that we are to remain and continue to amuse him. The observations of the first months of child-life abound with such illustrations of an initiating practical intelligence.

Yet these exploits, impressive as they often are, hardly disclose the distinctive attributes of the human thinker. The cat, without any example to imitate, will find its way to a quite charming begging gesture by reaching up and tapping your arm.

Probably the earliest unambiguous indication of a human faculty of thought is to be found in infantile comparison. When a baby turns its head deliberately and sagely from a mirror-reflexion or portrait of its mother to the original, we appear to see the first crude beginnings of

a process which, when more elaborated, becomes human understanding.

A good deal of comparison of this kind seems to enter into the mental activity of young children. Thus the deep absorbing attention to pictures spoken of above commonly means a careful comparison of this and that form one with another, and in certain cases, at least, a comparison of what is now seen with the mental image of the original. In some children, moreover, comparison under the form of measurement grows into a sort of craze. They want to measure the height of things one with another and so forth. An intelligent child will even find his way to a *mediate* form of comparison, that is, to measuring things through the medium of a third thing. Thus a boy of five, who had conceived a strong liking for dogs, was in the habit when walking out of measuring on his body how high a dog reached. On returning home he would compare this height with that of the seat or back of a chair, and would finally ask for a yard measure and find out the number of inches.

This comparison of things is of the very essence of understanding, of comprehending things as distinguished from merely apprehending them as concrete isolated objects. The child in his desire to assimilate, to find something in the region of the known with which the new and strange thing may be brought into kinship, is ever on the look-out for likeness. Hence the analogical and half-poetical apperception of things, the metaphorical reduction of a thing to a prototype, as in calling a star an eye, or an eyelid a curtain, may be said to contain the germ at once of poetry and of science.

This comparison for purposes of understanding leads on to what psychologists call classification, or generalisation ; the bringing together and keeping before the mind of a number of like things by help of a general name. The child may be said to become a true thinker as soon as he uses names intelligently, calling each thing by an appropriate name, and so classing it with its kind.

This power of infantile generalisation is one full of interest and has been carefully observed. It will, however, be more conveniently dealt with in another chapter where we shall be specially concerned with the child's use of language.

While thus beginning to arrange things according to such points of likeness as he can discover, the child is noting the connexions of things. He finds out what belongs to a horse, to a locomotive engine, he notes when father leaves home and returns, when the sun declines, what accompanies and follows rain, and so forth. That is to say, he is feeling his way to the idea of connectedness, of regularity, of what we call uniformity or law. We now say that the child reasons, no longer blindly or automatically like the dog, but with a consciousness of what he is doing. We little think how much hard work has to be got through by the little brain before even this dim perception of regularity is attained. In some things, no doubt, the regularity is patent enough, and can hardly be overlooked by the dullest of children. The connexion between the laying of the cloth and the meal—at least in an orderly home—is a matter which even the canine and the feline intelligence is quite able to grasp. But when it comes to finding out the law according to which, say, his face gets dirty, his head aches, or people send out their invitations to children's parties, the matter is not so simple.

The fact is that there is so large a proportion of apparent disconnectedness and capricious irregularity in the child's world that it is hard to see how he would ever learn to understand and to reason, were he not endowed with a lively and inextinguishable impulse to connect and simplify. Herein lies a part of the pathos of childhood. It brings its naïve prepossession of a regular well-ordered world, and alas, finds itself confronted with an impenetrable tangle of disorder. How quaint it is to listen to the little thinker, as, with untroubled brow, he begins to propound his

beautifully simple theory of the cosmic order. An American boy of ten who had had one cross small teacher, and whose best teacher had been tall, accosted a new teacher thus: "I'm afraid you'll make a cross teacher". His teacher replied: "Why, am I cross?" To which he rejoined: "No; but you are so small". We call this hasty generalisation. We might with equal propriety term it the child's innate *a priori* view of things.

With this eagerness to get at and formulate the law of things is inseparably bound up the impulse to bring every new occurrence under some general rule. Here, too, the small thinker may only too easily slip by failing to see the exact import and scope of the rule. We see this in the extension of laws of human experience to the animal world. Rules supplied by others and only vaguely understood, more particularly moral and religious truths, lend themselves to this kind of misapplication. The Worcester collection of *Thoughts and Reasonings of Children* gives some odd examples of such application. American children, to judge from these examples, appear to be particularly smart at quoting Scripture; not altogether, one suspects, without a desire to show off, and possibly to raise a laugh. But discounting the influence of such motives it seems pretty clear that a child has a marvellous power of reading his own ideas into others' words, and so of giving them a turn which is apt to stagger their less-gifted authors. Here is a case. R.'s aunt said: "You are so restless, R., I can't hold you any longer". R.: "Cast your burden on the Lord, Aunty K., and He will sustain y u". The child, we are told, was only four. He probably understood the Scripture injunction as a useful prescription for getting rid of a nuisance, and with the admirable impartiality of childish logic at once applied it to himself. Other illustrations of such misapplication will meet us when we take up the relation of the child's thought to language.

The Questioning Age.

The child's first vigorous effort to understand the things about him may be roughly dated at the end of the third year, and it is noteworthy that this synchronises with the advent of the questioning age. The first putting of a question occurred in the case of Preyer's boy in the twenty-eighth month, in that of Pollock's girl in the twenty-third month. But the true age of inquisitiveness when question after question is fired off with wondrous rapidity and pertinacity seems to be ushered in with the fourth year.

A common theory peculiarly favoured by ignorant nurses and mothers is that children's questioning is a studied annoyance. The child has come to the use of words, and with all a child's 'cussedness' proceeds to torment the ears of those about him. There are signs, however, of a change of view on this point. The fact that the questioning follows on the heels of the reasoning impulse might tell us that it is connected with the throes which the young understanding has to endure in its first collision with a tough and baffling world. The question is the outcome of ignorance coupled with a belief in the boundless knowledge of grown-up people. It is an attempt to add to the scrappy, unsatisfying information about things which the little questioner's own observation has managed to gather, or others' half-understood words have succeeded in communicating. It is the outcome of intellectual craving, of a demand for mental food. But it is much more than an expression of need. Just as the child's articulate demand for food implies that he knows what food is, and that it is obtainable, so the question implies that the little questioner knows what he needs, and in what direction to look for it. The simplest form of question, *e.g.*, "What is this flower?" "this insect?" shows that the child by a half-conscious process of reflexion and reasoning has found his way to the truth that things have their qualities, their belongings, their names. Many questions, indeed, *e.g.*, 'Has the moon wings?'

'Where do all the days go to?' reveal a true process of childish thought and have a high value as expressions of this thought.

Questioning may take various directions. A good deal of the child's catechising of his long-suffering mother is prompted by thirst for fact.[1] The typical form of this line of questioning is 'What?' The motive here is to gain possession of some fact which will connect itself with and supplement a fact already known. 'How old is Rover?' 'Where was Rover born?' 'Who was his father?' 'What is that dog's name?' 'What sort of hair had you when you were a little girl?' These are samples of the questioning activity by help of which the little inquirer tries to make up his connected wholes, to see things with his imagination in their proper attachment and order. And how greedily and pertinaciously the small folk will follow up their questioning, flying as it often looks wildly enough from point to point, yet gathering from every answer some new contribution to their ideas of things. A boy of three years and nine months would thus attack his mother: 'What does frogs eat, and mice and birds and butterflies? and what does they do? and what is their names? What is all their houses' names? What does they call their streets and places?' etc., etc.

Such questions easily appear foolish because, as in the case just quoted, they are directed by quaint childish fancies. The child's anthropomorphic way of looking out on the world leads him to assimilate animal to human ways.

One feature in this fact-gleaning kind of question is the great store which the child sets by the name of a thing. M. Compayré has pointed out that the form of question: 'What is this?' often means, "What is it

[1] The first question put by Preyer's boy was, 'Where is mamma?' *Die Seele des Kindes*, p. 412. (The references are to the third edition, 1890.)

called?" The child's unformulated theory seems to be that everything has its own individual name. The little boy just spoken of explained to his mother that he thought all the frogs, the mice, the birds, and the butterflies had names given to them by their mothers as he himself had. Perhaps this was only a way of expressing the childish idea that everything has its name, primordial and unchangeable.

A second direction of this early questioning is towards the reason and the cause of things. The typical form is here 'why?' This form of inquiry occurred in the case of Preyer's boy at the age of two years forty-three weeks. But it becomes the all-predominant form of question somewhat later. Who that has tried to instruct the small child of three or four does not know the long shrill whine-like sound of this question? This form of question develops naturally out of the earlier, for to give the 'what?' of a thing, that is its connexions, is to give its 'why?' that is its mode of production, its use and purpose.

Nothing perhaps in child utterance is better worth interpreting, hardly anything more difficult to interpret, than this simple-looking little 'why?'

We ourselves perhaps do not use the word 'why' and its correlative 'because' with one clear meaning; and the child's first use of the words is largely imitative. What may be pretty safely asserted is that even in the most parrot-like and wearisome iteration of 'why?' and its equivalents 'what for?' etc., the child shows a dim recognition of the truth that a thing is understandable, that it has its reasons if only they can be found.

Let us in judging of this pitiless 'why?' try to understand the situation of the young mind confronted by so much that is strange and unassimilated, meeting by observation and hearsay with new and odd occurrences every day. The strange things standing apart from his tiny familiar world, the wide region of the quaint and puzzling

in animal ways, for example, stimulate the instinct to appropriate, to master. The little thinker must try at least to bring the new odd thing into some rec gnisable relation to his familiar world. And what is more natural than to go to the wise lips of the grown-up person for a solution of the difficulty? The fundamental significance of the 'why?' in the child's vocabulary, then, is the necessity of connecting new with old, of illuminating what is strange and dark by light reflected from what is already matter of knowledge. And a child's 'why?' is often temporarily satisfied by supplying from the region of the familiar an analogue to the new and unclassed fact. Thus his impulse to understand why pussy has fur, is met by telling him that it is pussy's hair.

It is only a step further in the same direction when the 'why?' has to be met by supplying a general statement; for to refer the particular to a general rule is a more perfect and systematic kind of assimilation. Now we know that children are very susceptible to the authority of precedent, custom, general rule. Just as in children's ethics customary permission makes a thing right, so in their logic the truth that a thing generally happens may be said to supply a reason for its happening in a particular case. Hence, when the much-abused nurse answers the child's question, 'Why is the pavement hard?' by saying, 'Because pavement is always hard,' she is perhaps less open to the charge of giving a woman's reason than is sometimes said.[1] In sooth the child's queries, his searchings for explanation, are, as already suggested, prompted by the desire for order and connectedness. And this means that he wants the general rule to which he can assimilate the particular and as yet isolated fact.

From the first, however, the 'why?' and its congeners have reference to the causal idea, to something which has brought the new and strange thing into existence and made

[1] *Cf.* some shrewd remarks by Dr. Venn, *Empirical Logic*, p. 494.

it what it is. In truth this reference to origin, to bringing about or making, is exceedingly prominent in children's questionings. Nothing is more interesting to a child than the production of things. What hours and hours does he not spend in wondering how the pebbles, the stars, the birds, the babies are made. This vivid interest in production is to a considerable extent practical. It is one of the great joys of children to be able themselves to make things, and this desire to fashion, which is probably at first quite immense, and befitting rather a god than a feeble mannikin of three years, naturally leads on to inquiry into the mode of producing. Yet from the earliest a true speculative interest blends with this practical instinct. Children are in the complete sense little philosophers, if philosophy, as the ancients said, consists in knowing the causes of things. This discovery of the cause is the completed process of assimilation, of the reference of the particular to a general rule or law.

This inquiry into origin and mode of production starts with the amiable presupposition that all things have been hand-produced after the manner of household possessions. The world is a sort of big house where everything has been made by somebody, or at least fetched from somewhere. This application of the anthropomorphic idea of fashioning follows the law of all childish thought, that the unknown is assimilated to the known. The one mode of origin which the embryo thinker is really and directly familiar with is the making of things. He himself makes a respectable number of things, including these rents in his clothes, messes on the tablecloth, and the like, which he gets firmly imprinted on his memory by the authorities. And, then, he takes a keen interest in watching the making of things by others, such as puddings, clothes, houses, hayricks. To ask, then, who made the animals, the babies, the wind, the clouds, and so forth, is for him merely to apply the more familiar type of causation as norm or rule.

Similarly in all questions as to the 'whence?' of things, as in asking whether babies were bought in a shop.

The 'why?' takes on a more special meaning when the idea of purpose becomes clear. The search now is for the end, what philosophers call the teleological cause or reason. When, for example, a child asks 'Why does the wind blow?' he means, 'What is its object in blowing?' or 'Of what use is the blowing of the wind?'

The idea underlying the common form of the 'why?' interrogative deserves a moment's inspection. A child's view of causation starts like other ideas from his most familiar experiences. He soon finds out that his own actions are controlled by the desire to get or to avoid something, that, to speak in rather technical language, the idea of the result of the action precedes and determines this action.

I have lately come across a very early, and as I think, remarkable illustration of this form of childish thought. A little girl already quoted, whom we will call M., when one year eleven months old, happened to be walking with her mother on a windy day. At first she was delighted at the strong boisterous wind, but then got tired and said: 'Wind make mamma's hair untidy, Babba (her own name) make mamma's hair tidy, *so wind not blow adain* (again)'. About three weeks later this child was out in the rain, when she said to her mother: 'Mamma, dy (dry) Babba's hands, *so not rain any more*'. What does this curious inversion of the order of cause and effect mean? I am disposed to think that this little girl, who was unusually bright and intelligent, was transferring to nature's phenomena the forms of her own experience. When she is disorderly, and her mother or nurse arranges her hair or washes her hands, it is in order that she may not continue to be disorderly. The child is envisaging the wind and the rain as a kind of naughty child who can be got to behave properly by effacing the effects of its

naughtiness. In other words they are both to be deterred from repeating what is objectionable by a visible and striking manifestation of somebody's objection or prohibition. Here, it seems unmistakable, we have a projection into nature of human purpose, of the idea of determination of action by end: we have a form of anthropomorphism which runs through the whole of primitive thought.

It seems to follow from this that there is a stage in the development of a child's intelligence when questions such as, 'Why do the leaves fall?' 'Why does the thunder make such a noise?' are answered most satisfactorily by a poetic fiction, by saying, for example, that the leaves are old and tired of hanging on to the trees, and that the thunder giant is in a particularly bad temper and making a noise. It is perhaps permissible to make use of this fiction at times, more especially when trying to answer the untiring questioning about animals and their doings, a region of existence, by the way, of which even the wisest of us knows exceedingly little. Yet the device has its risks; and an ill-considered piece of myth-making passed off as an answer may find itself awkwardly confronted by that most merciless of things, a child's logic.

We may notice something more in this early mode of interrogation. Children are apt to think not only that things behave in general after our manner, that their activity is determined by some end or purpose, or that they have their useful function, their *raison d'être* as we say, but that this purpose concerns us human creatures. The wind and the rain came and went in our little girl's nature-theory just to vex or out of consideration for 'mamma' and 'Babba'. A little boy of two years two months sitting on the floor one day in a bad temper looked up and saw the sun shining and said captiously, 'Sun not look at Hennie,' and then more pleadingly, 'Please, sun, not look at poor Hennie'.[1] The sea, when the child C. first saw it, was

[1] See note by E. M. Stevens, *Mind*, xi., p. 150.

supposed to make its disturbing noise with special reference to his small ears. We may call this the anthropocentric idea, the essence of which is that man is the centre of reference, the aim or target, in all nature's processes. This anthropocentric tendency again is shared by the child with the uncultured adult. Primitive man looks on wind, rain, thunder as sent by some angry spirit, and even a respectable English farmer tends to view these operations of nature in much the same way. In children this anthropocentric impulse is apt to get toned down by their temperament, which is on the whole optimistic and decidedly practical, into a looking out for the *uses* of things. A boy, already quoted, once (towards the end of the fourth year) asked his mother what the bees do. This question he explained by adding: "What is the good of them?" When told that they made honey he observed pertinently enough from his teleological standpoint: "Then do they bring it for us to eat?" This shrewd little fellow might have made short work of some of the arguments by which the theological optimists of the last century were wont to 'demonstrate' the Creator's admirable adaptation of nature to man's wants.

The frequency of this kind of 'why?' suggests that children's thoughts about things are penetrated with the idea of purpose and use. This is shown too in other ways. M. A. Binet found by questioning children that their ideas of things are largely made up of uses. Thus, asked what a hat is, a child answered: "Pour mettre sur la tête". Mr. H. E. Kratz of Sioux City sends me some answers to questions by children of five on entering a primary school, which illustrate the same point. Thus the question, 'What is a tree?' brings out the answers, 'To make the wind blow,' 'To sit under,' and so forth.

Little by little this idea of a definite purpose and use in this and that thing falls back and the child gets interested more in the production or origination of things. He

wants to know who made the trees, the birds, the stars and so forth. Here, though what we call efficient, as distinguished from final, cause is recognised, anthropomorphism survives in the idea of a maker analogous to the carpenter. We shall see later that children habitually envisage the deity as a fabricator.

All this rage of questioning about the uses and the origin of things is the outcome, not merely of ignorance and curiosity, but of a deeper motive, a sense of perplexity, of mystery or contradiction. It is not always easy to distinguish the two types of question, yet in many cases at least its form and the manner of putting it will tell us that it issues from a puzzled and temporarily baffled brain. As long as the questioning goes on briskly we may infer that a child believes in the possibility of knowledge, and has not sounded the deepest depths of intellectual despair. More pathetic than the saddest of questions is the silencing of questions by the loss of faith.

It is easy to see that children must find themselves puzzled with much which they see and hear of. The apparent exceptions to rules don't trouble the grown-up persons just because as *recurrent* exceptions they seem to take on a rule of their own. Thus adults though quite unversed in hydrostatics would be incapable of being puzzled by C.'s problem: why my putting my hand in water does not make a hole in it. Similarly, though they know nothing of animal physiology they are never troubled by the mystery of fish breathing under water, which when first noted by a child may come as a sort of shock. The little boy just referred to, in his far-reaching zoological interrogatory asked his mother: "Can they (the fish) breathe with their moufs under water?"

In his own investigations, and in getting instruction from others, the child is frequently coming upon puzzles of this sort. The same boy was much exercised about the sea and where it went to. He expressed a wish to take off

his shoes and to walk out into the sea so as to see where the ships go to, and was much troubled on learning that the sea got deeper and deeper, and that if he walked out into it he would be drowned. At first he denied the paradox (which he at once saw) of the incoming sea going uphill: "But, mamma, it doesn't run up, it doesn't run up, so it couldn't come up over our heads?" He was told that this was so, and he wisely began to try to accommodate his mind to this startling revelation. C., it will be seen, was much exercised by this problem of the moving mass of waters, wanting to know whether it came half way up the world. Probably in both these cases the idea of water rising had its uncanny alarming aspect.

It is probable that the disappearance of a thing is at a very early stage a puzzle to the infant. Later on, too, the young mind continues to be exercised about this mystery. Our little friend's inquiry about the whither of the big receding sea, "Where does the sea sim (swim) to?" illustrates this perplexity. A child seems able to understand the shifting of an object of moderate size from one part of space to another, but his conception of space is probably not large enough to permit him to realise how a big tract of water can pass out of the visible scene into the unseen. The child's question, "Where does all the wind go to?" seems to have sprung from a like inability to picture a vast unseen realm of space.

In addition to this difficulty of the disappearance of big things, there seems to be something in the vastness and the infinite number of existent things perceived and heard about, which puzzles and oppresses the young mind. The inability to take in all the new facts leads to a kind of resentment of their multitude. "Mother," asked a boy of four years, "why *is* there such a lot of things in the world if no one knows all these things?" One cannot be quite sure of the underlying thought here. The child may have meant merely to protest against the production of so con-

fusing a number of objects in the world. This certainly seems to be the motive in some children's inquiries, as when a little girl, aged three years seven months, said: 'Mamma, why do there be any more days, why do there? and why don't we leave off eating and drinking?' Here the burdensomeness of mere multiplicity, of the unending procession of days and meals, seems to be the motive. Yet it is possible that the question about a lot of things not known to anybody was prompted by a deeper difficulty, a dim presentiment of Berkeley's idealism, that things can exist only as objects of knowledge. This surmise may seem far-fetched to some, yet I have found what seem to me other traces of this tendency in children. A girl of six and a half years was talking to her father about the making of the world. He pointed out to her the difficulty of creating things out of nothing, showing her that when we made things we simply fashioned materials anew. She pondered and then said: "Perhaps the world's a fancy". Here again one cannot be quite sure of the child-thought behind the words. Yet it certainly looks like a falling back for a moment into the dreamy mood of the idealist, that mood in which we seem to see the solid fabric of things dissolve into a shadowy phantasmagoria.

The subject of origins is, as we know, beset with puzzles for the childish mind. The beginnings of living things are, of course, the great mystery. "There's such a lot of things," remarked the little zoologist I have recently been quoting, "I want to know, that you say nobody knows, mamma. I want to know who made God, and I want to know if Pussy has eggs to help her make ickle (little) kitties." Finding that this was not so, he observed: "Oh, then, I s'pose she has to have God to help her if she doesn't have kitties in eggs given her to sit on". Another little boy, five years old, found his way to the puzzle of the reciprocal genetic relation of the hen and the egg, and asked his mother: "When there *is* no egg where does the hen come from?

When there *was* no egg, I mean, where *did* the hen come from?" In a similar way, as we shall see in C.'s journal, a child will puzzle his brains by asking how the first child was suckled, or, as a little girl of four and a half years put it, "When everybody was a baby—then who could be their nurse—if they were all babies?" The beginnings of human life are, as we know, a standing puzzle for the young investigator.

Much of this questioning is metaphysical in that it transcends the problems of every-day life and of science. The child is metaphysician in the sense in which the earliest human thinkers were metaphysicians, pushing his questioning into the inmost nature of things, and back to their absolute beginnings, as when he asks 'Who made God?' or 'What was there before God?'[1] He has no idea yet of the confines of human knowledge. If his mother tells him she does not know he tenaciously clings to the idea that somebody knows, the doctor it may be, or the clergyman—or possibly the policeman, of whose superior knowledge one little girl was forcibly convinced by noting that her father once asked information of one of these stately officials.

Strange, bizarre, altogether puzzling to the listener, are some of these childish questions. A little American girl of nine years after a pause in talk re-commenced the conversation by asking: "Why don't I think of something to say?" A play recently performed in a London theatre made precisely this appeal to others by way of getting at one's own motives a chief amusing feature in one of its comical characters. Another little American girl aged three one day left her play and her baby sister named Edna Belle to find her mother and ask: "Mamma, why ain't Edna Belle me, and why ain't I Edna Belle?"[2] The

[1] Illustrations are given by Compayré, *op. cit.*, and by P. Lombroso, *Psicologia del Bambino*, p. 47 ff.

[2] Quoted from an article, "Some Comments on Babies," by Miss Shinn in the *Overland Monthly*, Jan., 1894.

narrator of this story adds that the child was not a daughter of a professor of metaphysics but of practical farmer folk. One cannot be quite sure of the precise drift of this question. It may well have been the outcome of a new development of self-consciousness, of a clearer awareness of the self in its distinctness from others. A question with a much clearer metaphysical ring about it, showing thought about the subtlest problems, was that put by a boy of the same age: "If I'd gone upstairs, could God make it that I hadn't?" This is a good example of the type of question: 'Can he make a thing done not to have been done?' which according to Erasmus was much debated by theologians.[1]

With many children confronted with the mysteries of God and the devil this questioning often reproduces the directions of theological speculation. Thus the problem of the necessity of evil is clearly recognisable in the question once put by an American boy under eight years of age to a priest who visited his home: "Father, why don't God kill the devil and then there would be no more wickedness in the world?"

All children's questioning does not of course take this sublime direction. Along with the tendency to push back inquiry to the unreachable beginning of things we mark a more modest and scientific line of investigation into the observable and explainable processes of nature. Some questions which a busy listener would pooh-pooh as dreamy have a genuinely scientific value, showing that the little inquirer is trying to work out some problem of fact. This is illustrated by a question put by a little boy aged three years nine months: "Why don't we see two things with our two eyes?" a problem which, as we know, has exercised older psychologists.

When this more definitely scientific direction is taken by a child's questioning we may observe that the ambitious 'why?' begins to play a second *rôle*, the first being now

[1] Froude, *Letters of Erasmus*, Lect. vii.

taken by the more modest 'how?' The germ of this kind of inquiry may be present in some of the early questioning about growth. "How," asked our little zoologist, "does plants grow when we plant them, and how does boys grow from babies to big boys like me? Has I grown now whilst I was eating my supper? See!" and he stood up to make the most of his stature. Clearer evidence of a directing of inquiry into the processes of things appears in the fifth and sixth years. A little girl of four years seven months among other questionings wanted to know what makes the trains move, and how we move our eyes. The incessant inquiries of the boy Clark Maxwell into the 'go' of this thing or the 'particular go' of that illustrate in a clearer manner the early tendency to direct questioning to the more manageable problems to which science confines itself.

These different lines of questioning are apt to run on concurrently from the end of the third year, a fit of eager curiosity about animals or other natural objects giving place to a fit of theological inquiry, this again being dropped for an equally eager inquiry into the making of clocks, railway engines, and so on. Yet through these alternating bouts of questioning we can distinguish something like a law of intellectual progress. Questioning as the most direct expression of a child's curiosity follows the development of his groups of ideas and of the interests which help to construct these. Thus I think it a general rule that questioning about the make or mechanism of things follows questioning about animal ways just because the zoological interest (in a very crude form of course) precedes the mechanical. The scope of this early questioning will, moreover, expand with intellectual capacity, and more particularly the capability of forming the more abstruse kind of childish idea. Thus inquiries into absolute beginnings, into the origin of the world and of God himself, indicate the presence of a larger intellectual grasp of time-relations and of the processes of becoming.

Our survey of the field of childish questioning suggests that it is by no means an easy matter to deal with. It must be admitted, I think, by the most enthusiastic partisan of children that their questioning is of very unequal value. It may often be noticed that a child's 'why?' is used in a sleepy mechanical way with no real desire for knowledge, any semblance of answer being accepted without an attempt to put a meaning into it. A good deal of the more importunate kind of children's questioning, when they follow up question with question recklessly, as it seems, and without definite aim, appears to be of this formal and lifeless character, an expression not of a healthy intellectual activity, but merely of a mood of general mental discontent and peevishness. In a certain amount of childish questioning, indeed, we have, I suspect, to do with a distinctly abnormal mental state, with an analogue of that mania of questions, or passion for mental rummaging or prying into everything, "Grübelsucht" as the Germans call it, which is a well-known phase of mental disease, and prompts the patient to put such questions as this: "Why do I stand here where I stand?" "Why is a glass a glass, a chair a chair?" Such questioning ought, it is evident, not to be treated too seriously. We may attach too much significance to a child's question, labouring hard to grasp its meaning, with a view to answering it, when we should be wiser if we viewed it as a symptom of mental irritability and peevishness, to be got rid of as quickly as possible by a good romp or other healthy distraction.[1]

To admit, however, that children's questions may now and again need this sort of wholesome snubbing is far from saying that we ought to treat all their questioning with a mild contempt. The little questioners flatter us by attributing superior knowledge to us, and good manners should compel us to treat their questions with some attention. And if now and then they torment us with a string of

[1] *Cf.* Perez, *L'Education dès le berceau*, p. 45 ff.

random reckless questioning, in how many cases, one wonders, are they not made to suffer, and that wrongfully, by having perfectly serious questions rudely cast back on their hands? The truth is that to understand and to answer children's questions is a considerable art, including both a large and deep knowledge of things, and a quick sympathetic insight into the little questioners' minds, and few of us have at once the intellectual and the moral excellences needed for an adequate treatment of them. It is one of the tragi-comic features of human life that the ardent little explorer looking out with wide-eyed wonder upon his new world should now and again find as his first guide a nurse or even a mother who will resent the majority of his questions as disturbing the luxurious mood of indolence in which she chooses to pass her days. We can never know how much valuable mental activity has been checked, how much hope and courage cast down by this kind of treatment. Yet happily the questioning impulse is not easily eradicated, and a child who has suffered at the outset from this wholesale contempt may be fortunate enough to meet, while the spirit of investigation is still upon him, one who knows and who has the good nature and the patience to impart what he knows in response to a child's appeal.

IV.

PRODUCTS OF CHILD-THOUGHT.

The Child's Thoughts about Nature.

WE have seen in the previous chapter how a child's mind behaves when brought face to face with the unknown. We will now examine some of the more interesting results of this early thought-activity, what are known as the characteristic ideas of children. There is no doubt, I think, that children, by reflecting on what they see or otherwise experience and what they are told by others, fashion their own ideas about nature, death and the rest. This tendency, as pointed out above, discloses itself to some extent in their questions about things. It has now to be more fully studied in their sayings as a whole. The ideas thus formed will probably prove to vary considerably in the case of different children, yet to preserve throughout these variations a certain general character.

These ideas, moreover, like those of primitive races, will be found to be a crude attempt at a connected system. We must not, of course, expect too much here. The earliest thought of mankind about nature and the supernatural was very far from being elaborated into a consistent logical whole; yet we can see general forms of conception or tendencies of thought running through the whole. So in the case of this largely spontaneous child-thought. It will disclose to an unsparing critical inspection vast gaps, and many unsurmounted contradictions. Thus in the case of

children, as in that of uncultured races, the supernatural realm is at first brought at most into only a very loose connexion with the visible world. All the same there is seen, in the measure of the individual child's intelligence, the endeavour to co-ordinate, and the poor little hard-pressed brain of a child will often pluckily do its best in trying to bring some connexion into that congeries of disconnected worlds into which he finds himself so confusingly introduced, partly by the motley character of his own experiences, as the alternations of waking and sleeping, partly by the haphazard miscellaneous instruction, mythological, historical, theological, and the rest, with which we inconsiderately burden his mind.

As was observed in dealing with children's imaginative activity, this primitive child-lore, like its prototype in folk-lore, is largely a product of a naïve vivid fancy. In assigning the relations of things and their reasons, a child's mind does not make use of abstract conceptions. It does not talk about "relation," but pictures out the particular relation it wants to express by a figurative expression, as in apperceiving the juxtaposition of moon and star as mamma and baby. So it does not talk of abstract force, but figures some concrete form of agency, as in explaining the wind by the idea of somebody's waving a big fan somewhere. This first crude attempt of the child to envisage the world is, indeed, largely mythological, proceeding by the invention of concrete and highly pictorial ideas of fairies, giants and their doings.

The element of thought comes in with the recognition of the real as such, and with the application of the products of young phantasy to comprehending and explaining this reality. And here we see how this primitive child-thought, though it remains instinct with glowing imagery, differentiates itself from pure fancy. This last knows no restraint, and aims only at the delight of its spontaneous play-like movements, whereas thought is essentially the

serious work of realising and understanding what exists. The contrast is seen plainly enough if we compare the mental attitude of the child when he is frankly romancing, giving out now and again a laugh, which shows that he himself fully recognises the absurdity of his talk, with his attitude when in gravest of moods he is calling upon his fancy to aid reason in explaining some puzzling fact.

How early this splitting of the child's imaginative activity into these two forms, the playful and the thoughtful, takes place is not, I think, very easy to determine. Many children at least are apt at first to take all that is told them as gospel. To most of them about the age of three and four, I suspect, fairyland, if imagined at all, is as much a reality as the visible world. The disparity of its contents, the fairies, dragons and the rest, with those of the world of sense does not trouble their mind, the two worlds not being as yet mentally juxtaposed and dovetailed one into the other. It is only later when the desire to understand overtakes and even passes the impulse to frame bright and striking images, and, as a result of this, critical reflexion applies itself to the nursery legends and detects their incongruity with the world of every-day perception, that a clear distinction comes to be drawn between reality and fiction, what exists and can (or might) be verified by sense, and what is only pictured by the mind.

With this preliminary peep into the *modus operandi* of children's thought, let us see what sort of ideas of things they fashion.

Beginning with their ideas of natural objects we find, as has been hinted, the influence of certain predominant tendencies. Of these the most important is the impulse to think of what is far off, whether in space or time, and so unobservable, as like what is near and observed. Along with this tendency, or rather as one particular development of it, there goes the disposition already illustrated, to vivify nature, to personify things and so to assimilate their

behaviour to the child's own, and to explain the origin of things by ideas of making and aiming at some purpose. Since, at the same time that these tendencies are still dominant, the child by his own observation and by such instruction as he gets, is gaining insight into the 'how,' the mechanism of things, we find that his cosmology is apt to be a quaint jumble of the scientific and the mythological. Thus the boy C. tried to conceive of the divine creation of men as a mechanical process with well-marked stages—the fashioning of stone men, iron men, and then real men. In many cases we can see that a nature-myth comes in to eke out the deficiencies of mechanical insight. Thus, the production of thunder and other strange and inexplicable phenomena is referred, as by the savage, and even by many so-called civilised men and women, to the direct interposition of a supernatural agency. The theological idea with which children are supplied is apt to shape itself into that of a capricious and awfully clever demiurgos, who not only made the world-machine but alters its working as often as he is disposed. With this idea of a supernatural agent there is commonly combined that of a natural process as means employed, as when thunder is supposed to be caused by God's treading heavily on the floor of the sky. Contradictions are not infrequent, the mythological impulse sometimes alternating with a more distinctly scientific impulse to grasp the mechanical process, as when wind is sometimes thought of, as caused by a big fan, and sometimes, *e.g.*, when heard moaning in the night, endowed with life and feeling.

I shall make no attempt to give a methodical account of children's thoughts about nature. I suspect that a good deal more material will have to be collected before a complete description of these thoughts is possible. I shall content myself with giving a few samples of their ideas so far as my own studies have thrown light on them.

With respect to the make or substance of things children

are, I believe, disposed to regard all that they see as having the resistant quality of solid material substance.

At first, that is to say after the child has had experience enough of seeing and touching things at the same time to know that the two commonly go together, he believes that all which he sees is tangible or substantial. Thus he will try to touch shadows, sunlight dancing on the wall, and picture forms. This tendency to "reify," or make things of, his visual impressions shows itself in pretty forms, as when the little girl M., one year eleven months old, "gathered sunlight in her hands and put it on her face". The same child about a month earlier expressed a wish to wash some black smoke. This was the same child that tried to make the wind behave by making her mother's hair tidy; and her belief in the material reality of the wind was shown by her asking her mother to lift her up high so that she might see the wind. This last, it is to be noted, was an inference from touching and resisting to seeing.[1] Wind, it has been well remarked, keeps something of its substantiality for all of us long after shadows have become the type of unreality, proving that the experience of resisting something lies at the root of our idea of material substance. That older children believe in the wind as a living thing seems suggested by the readiness with which they get up a kind of play-tussle with it. That wind even in less fanciful moments is reified is suggested by the following story from the Worcester collection. A girl aged nine was looking out and seeing the wind driving the snow in the direction of a particular town, Millbury: whereupon she remarked, "I'd like to live down in Millbury". Asked why, she replied, "There must be a lot of wind down there, it's all blowing that way".

Children, as may be seen in this story, are particularly interested in the movements of things. Movement is the

[1] Compare R. L. Stevenson's lines to the wind:

"I felt you push, I heard you call,
I could not see yourself at all".

A Child's Garden of Verse, xxv.

clearest and most impressive manifestation of life. All apparently spontaneous or self-caused movements are accordingly taken by children, as by primitive man, to be the sign of life, the outcome of something analogous to their own impulses. Hence the movements of falling leaves, of running water, of feathers and the like are specially suggestive of life. Wind owes much of its vitality, as seen in the facile personification of it by the poet, to its apparently uncaused movements. Some children in the Infant Department of a London Board School were asked what things in the room were alive, and they promptly replied the smoke and the fire. Big things moving by an internal mechanism of which the child knows nothing, more especially engines, are of course endowed with life. A little girl of thirteen months offered a biscuit to a steam-tram, and the author of *The Invisible Playmate* tells us that his little girl wanted to stroke the "dear head" of a locomotive. A child has been known to ask whether a steam-engine was alive. In like manner, savages on first seeing the self-moving steamer take it for a big animal. The fear of a dog at the sight of an unfamiliar object appearing to move of itself, as a parasol blown along the ground by the wind, seems to imply a rudiment of the same impulse to interpret self-movement as a sign of life.[1]

The child's impulse to give life to moving things may lead him to overlook the fact that the movement is caused by an external force, and this even when the force is exerted by himself. The boy C. on finding the cushion he was sitting upon slipping from under him in consequence of his own wriggling movements pronounced it alive. In like manner children, as suggested above, ascribe life to their moving playthings. Thus, C.'s sister when five years old stopped one day trundling her hoop, and turning to her mother, exclaimed: "Ma, I do think this hoop must be alive, it is so sensible: it goes where I want it to".

[1] See P. Lombroso, *op. cit.*, p. 26 ff.

Another little girl two and a quarter years old on having a string attached to a ball put into her hand, and after swinging it round mechanically, began to notice the movement of the ball, and said to herself, "Funny ball!" In both these cases, although the movement was directly caused by the child, it was certainly in the first case, and apparently in the second, attributed to the object.

Next to movement apparently spontaneous sound appears to be a common reason for attributing life to inanimate objects. Are not movement and vocal sound the two great channels of utterance of the child's own impulses? The little girl M., when just two years old, being asked by her mother for a kiss, answered prettily, 'Tiss (kiss) gone away'. This may, of course, have been merely a child's way of using language, but the fact that the same little girl asked to see a 'knock' suggests that she was disposed to give reality and life to sounds. Its sound greatly helps the persuasion that the wind is alive. A little boy assured his teacher that the wind was alive, for he heard it whistling in the night. The ascription of life to fire is probably aided by its sputtering crackling noises. The impulse, too, to endow so little organic-looking an object as a railway engine with conscious life is probably supported by the knowledge of its puffing and whistling. Pierre Loti, when as a child he first saw the sea, regarded it as a living monster, no doubt on the ground of its movement and its noise. The personification of the echo by the child, of which George Sand's reminiscences give an excellent example, as also by uncultured man, is a signal illustration of the suggestive force of a voice-like sound.

Closely connected with this impulse to ascribe life to what older folk regard as inanimate objects is the tendency to conceive them as growing. This is illustrated in the remark of the boy C., that his stick would in time grow bigger. On the other hand, there is in the Worcester Collec-

tion a curious story of a little American boy of three who, having climbed up into a large waggon, and being asked, "How are you going to get out?" replied, "I can stay here till it gets little and then I can get out my own self". We shall see presently that shrinkage or diminution of size is sometimes attributed by the child-mind to people when getting old. So that we seem to have in each of these cases the extension to things generally of an idea first formed in connexion with the observation of human life.

Children's ideas of natural objects are anthropomorphic, not merely as reflecting their own life, but as modelled after the analogy of the effects of their action. Quite young children are apt to extend the ideas broken and mended to objects generally. Anything which seems to have become reduced by losing a portion of itself is said to be 'broken'. A little boy of three, on seeing the moon partly covered by a cloud, remarked, "The moon is broken". On the other hand, in the case of one little boy, everything intact was said to be mended. It may be said, however, that we cannot safely infer from such analogical use of common language that children distinctly think of all objects as undergoing breakage and repair: for these expressions in the child's vocabulary may refer rather to the resulting appearances, than to the processes by which they are brought about.

Clearer evidences of this reflexion on to nature of the characteristics of his own life appear when a child begins to speculate about mechanical processes, which he invariably conceives of after the analogy of his own actions. This was illustrated in dealing with children's questions. We see it still more clearly manifested in some of their ideas. One of the most curious instances of this that I have met with is seen in early theorisings about the cause of wind. One of the children examined by Mr. Kratz said the tree was to make the wind blow. A pupil of mine distinctly recalls that when a child he accounted for the

wind at night by the swaying of two large elms in front of the house and not far from the windows of his bedroom. This reversing of the real order of cause and effect looks silly, until we remember that the child necessarily looks at movement in the light of his own actions. He moves things, *e.g.*, the water, by his moving limbs; we set the air in motion by a moving fan; it seems, therefore, natural to him that the wind-movements should be caused by the pressure of some moving thing; and there is the tree actually seen to be moving.

So far I have spoken for the most part of children's ideas about near and accessible objects. Their notions of what is distant and inaccessible are, as remarked, wont to be formed on the model of the first. Here, however, their knowledge of things will be largely dependent on others' information, so that the naïve impulse of childish intelligence has, as best it may, to work under the limitations of an imperfectly understood language.

It is perhaps hardly necessary to remind the reader that children's ideas of distance before they begin to travel far are necessarily very inadequate. They are disposed to localise the distant objects they see, as the sun, moon and stars, and the places they hear about on the earth's surface as near as possible. The tendency to approximate things as seen in the infant's stretching out of the hand to touch the moon lives on in the later impulse to localise the sky and heavenly bodies just beyond the farthest terrestrial object seen, as when a child thought they were just above the church spire, another that they could be reached by tying a number of ladders together, another that the setting sun went close behind the ridge of hills, and so forth. The stars, being so much smaller looking, seem to be located farther off than the sun and moon. Similarly when they hear of a distant place, as India, they tend to project it just beyond the farthest point known to them, say Hampstead, to which they were once taken on a long, long journey from

their East End home. A child's standard of size and distance is, as all know who have revisited the home of their childhood after many years, very different from the adult's. To the little legs unused as yet to more than short spells of locomotion a mile seems stupendous: and then the half-formed brain cannot yet pile up the units of measurement well enough to conceive of hundreds and thousands of miles.

The child appears to think of the world as a circular plain, and of the sky as a sort of inverted bowl upon it C.'s sister used on looking at the sky to fancy she was inside a blue balloon. That is to say he takes them to be what they look. In a similar manner C. took the sun to be a great disc which could be put on the round globe to make a 'see-saw' When this 'natural realism' gets corrected, children go to work to convert what is told them into an intelligible form Thus they begin to speculate about the other side of the globe, and, as Mr. Barrie reminds us, are apt to fancy they can know about it by peeping down a well. When religious instruction introduces the new region of heaven they are apt to localise it just above the sky, which to their thought forms its floor. Some genuine thought-work is seen in the effort to harmonise the various things they learn by observation and instruction about the celestial region into a connected whole. Thus the sky is apt to be thought of as *thin*, this idea being probably formed for the purpose of explaining the shining through of moon and stars. Stars are, as we know, commonly thought of by the child as holes in the sky letting through the light beyond. One Boston child ingeniously applied the idea of the thinness of the sky to explain the appearance of the moon when one half is bright and the other faintly illumined, supposing it to be half-way through the partially diaphanous floor. Others again prettily accounted for the waning of the moon to a crescent by saying it was half stuck or half buttoned into the sky.

The movements of the sun and other heavenly bodies are similarly apperceived by help of ideas of movements of familiar terrestrial objects. Thus the sun was thought by the Boston children half-mythologically, half-mechanically, to roll, to fly, to be blown (like a soap bubble or balloon?) and so forth. The anthropocentric form of teleological explanation is apt to creep in, as when a Boston child said charmingly that the moon comes round when people forget to light some lamps. Theological ideas, too, are pressed into the service of explanation, as when the disappearance of the sun is ascribed to God's pulling it up higher out of sight, to his taking it into heaven and putting it to bed, and so forth. These ideas are pretty obviously not those of a country child with a horizon. There is rather more of nature-observation in another childish idea, that the sun after setting lies under the trees where angels mind it.

The impressive phenomena of thunder and lightning give rise in the case of the child as in that of the Nature-man to some fine myth-making. The American children, as already observed, have different mechanical illustrations for setting forth the *modus* of the supernatural operation here, thunder being thought of now as God groaning, now as his walking heavily on the floor of heaven (*cf.* the old Norse idea that thunder is caused by the rolling of Thor's chariot), now as his hammering, now as his having coals run in—ideas which show how naïvely the child-mind humanises the Deity, making him a respectable citizen with a house and a coal-cellar. In like manner the lightning is attributed to God's burning the gas quick, striking many matches at once, or other familiar human device for getting a brilliant light suddenly. So God turns on rain by a tap, or lets it down from a cistern by a hose, or, better, passes it through a sieve or a dipper with holes.[1] In like manner a high wind was explained by a girl of five and a

[1] See the article on "The Contents of Children's Minds" already referred to.

half by saying that it was God's birthday, and he had received a trumpet as a present.

Throughout the whole region of these mysterious phenomena we have illustrations of the anthropocentric tendency to regard what takes place as designed for us poor mortals. The little girl of whom Mr. Canton writes thought the wind, and the rain and the moon 'walking' came out to see *her*, and the flowers woke up with the same laudable object.[1] When frightened by the crash of the thunder a child instinctively thinks that it is all done to vex his little soul. One of the funniest examples of the application of this idea I have met with is in the Worcester Collection. Two children, D. and K., aged ten and five respectively, live in a small American town. D., who is reading about an earthquake, addresses his mother thus: "Oh, isn't it dreadful, mamma? Do you suppose we will ever have one here?" K., intervening with the characteristic impulse of the young child to correct his elders: "Why, no, D., they don't have earthquakes in little towns like this". There is much to unravel in this delightful childish observation. It looks to my mind as if the earthquake were envisaged by the little five-year-old as a show, God being presumably the travelling showman, who takes care to display his fearful wonders only where there is an adequate body of spectators.

Finally, the same impulse to understand the new and strange by assimilating it to the familiar is, so far as I can gather, seen in children's first ideas about those puzzling semblances of visible objects which are due to subjective sensations. As we shall see in C.'s case the bright spectra or after-images caused by looking at the sun are instinctively objectived by the child, that is regarded as things external to his body. Here is a pretty full account of a child's thought about these subjective optical phenomena. A little boy of five, our little zoologist, in poor health at the time, "constantly imagined he saw angels, and said they were

[1] *The Invisible Playmate*, pp. 27, 28.

not white, that was a mistake, they were little coloured things, light and beautiful, and they went into the toy-basket and played with his toys". Here we have not only objectifying but myth-building. A year later he returned to the subject. "He stood at the window at B. looking out at a sea-mist thoughtfully and said suddenly, 'Mamma, do you remember I told you that I had seen angels? Well, I want now to say they were not angels, though I thought they were. I have seen it often lately, I see it now: it is bright stars, small bright stars moving by. I see it in the mist before that tree. I see it oftenest in the misty days. . . . Perhaps by-and-by I shall think it is something in my own eyes.'" Here we see a long and painstaking attempt of a child's brain to read a meaning into the 'flying spots,' which many of us know though we hardly give them a moment's attention.

What are children's first thoughts about their dreams like? I have not been able to collect much evidence on this head. What seems certain is that to the simple intelligence of the child these counterfeits of ordinary sense-presentations are real external things. The crudest manifestation of this thought-tendency is seen in taking the dream-apparition to be actually present in the bedroom. A boy in an elementary school in London, aged five years, said one day: "Teacher, I saw an old woman one night against my bed". Another child, a little girl, in the same school told her mother that she had seen a funeral last night, and on being asked, "Where?" answered quaintly, "I saw it in my pillow". A little boy whom I know once asked his mother not to put him to bed in a certain room, "because there were so many dreams in the room". In thus materialising the dream and localising it in the actual surroundings, the child but reflects the early thought of the race which starts from the supposition that the man or animal which appears in a dream is a material reality which actually approaches the sleeper.

The Nature-man, as we know from Professor Tylor's researches, goes on to explain dreams by his theory of souls or 'doubles' (animism). Children do not often find their way to so subtle a line of thought. Much more commonly they pass from the first stage of acceptance of objects present to their senses to the identification of dreamland with the other and invisible world of fairyland. There is little doubt that the imaginative child firmly believes in the existence of this invisible world, keeps it apart from the visible one, even though at times he may give it a definite locality in this (*e.g.*, in C.'s case, the wall of the bedroom). He gets access to it by shutting out the real world, as when he closes his eyes tightly and 'thinks'. With such a child, dreams get taken up into the invisible world. Going to sleep is now recognised as the surest way of passing into this region. The varying colour of his dreams, now bright and dazzling in their beauty, now black and terrifying, may be explained by a reference to the division of that fairy world into princes, good fairies, on the one hand, and cruel giants, witches, and the like, on the other.

We may now pass to some of children's characteristic ideas about living things, more particularly human beings, and the familiar domestic animals. The most interesting of these I think are those respecting growth and birth.

As already mentioned, growth is one of the most stimulating of childish puzzles. A child, led no doubt by what others tell him, finds that things are in general made bigger by additions from without, and his earliest conception of growth is, I think, that of such addition. Thus, plants are made to grow, that is, swell out, by the rain. The idea that the growth or expansion of animals comes from eating is easily reached by the childish intelligence, and, as we know, nurses and parents have a way of recommending the less attractive sorts of diet by telling children that they will make them grow. The idea that the sun makes us grow, often suggested by parents (who may be ignorant of the

fact that growth is more rapid in the summer than in the winter), is probably interpreted by the analogy of an infusion of something into the body.

In carrying out my inquiries into this region of childish ideas, I lighted quite unexpectedly on the queer notion that towards the end of life there is a reverse process of shrinkage. Old people are supposed to become little again. The first instance of this was supplied me by the Worcester Collection of Thoughts. A little girl of three once said to her mother: "When I am a big girl and you are a little girl I shall whip you just as you whipped me now". At first one is almost disposed to think that this child must have heard of Mr. Anstey's amusing story *Vice Versâ*. Yet this idea seems too improbable: and I have since found that she is not by any means the only one who has entertained this idea. A little boy that I know, when about three and a half years old, used often to say to his mother with perfect seriousness of manner: "When I am big then you will be little, then I will carry you about and dress you and put you to sleep".

I happened to mention this fact at a meeting of mothers and teachers, when I received further evidence of this tendency of child-thought. One lady whom I know could recollect quite clearly that when a little girl she was promised by her aunt some treasures, trinkets I fancy, when she grew up; and that she at once turned to her aunt and promised her that she would then give her in exchange all her dolls, as by that time she (the aunt) would be a little girl. Another case narrated was that of a little girl of three and a half years, who when her elder brother and sister spoke to her about her getting big rejoined: "What will you do when you are little?" A third case mentioned was that of a child asking about some old person of her acquaintance: "When will she begin to get small?" I have since obtained corroboratory instances from parents and teachers of infant classes. Thus a lady writes that a

little girl, a cousin of hers aged four, to whom she was reading something about an old woman, asked: "Do people turn back into babies when they get quite old?"

What, it may be asked, does this queer idea of shrinkage in old age mean? By what quaint zig-zag movement of childish thought was the notion reached? I cannot learn that there is any such idea in primitive folk-lore, and this suggests that children find their way to it, in part at least, by the suggestions of older people's words. A child may, no doubt, notice that old people stoop, and look small, and the fairy book with little old women may strengthen the tendency to think of shrinkage. But I cannot bring myself to believe that this would suffice to produce the idea in so many cases.

That there is much in what the little folk hear us say fitted to raise in their minds an idea of shrinking back into child-form is certain. Many children must, at some time or another, have overheard their elders speaking of old feeble people getting childish; and we must remember that even the attributive 'silly' applied to old people might lead a child to infer a return to childhood; for if there is one thing that children—true unsophisticated children—believe in it is the all-knowingness of grown-ups as contrasted with the know-nothingness of themselves. C.'s belief in the preternatural calculating powers of Goliath is an example of this correlation in the child's consciousness between size and intelligence.[1]

But I suspect that there is a further source of this characteristic product of early thought, involving still more of the child's philosophizing. As we have seen, a child cannot accept an absolute beginning of things, and we shall presently find that he is equally incapable of believing

[1] That this is not the complete explanation is suggested by a story told by Perez. His nephew, over four years, on meeting a little old man said to his uncle: "When I shall be a little old man, will you be young?" (*L'Enfant de trois à sept ans*, p. 219).

in an absolute ending. He knows that we begin our earthly life as babies. Well, the babies must come from something, and when we die we must pass into something. What more natural, then, than the idea of a rhythmical alternation of cycles of existence, babies passing into grown-ups, and these again into babies, and so the race kept going? Does this seem too far-fetched an explanation? I think it will be found less so if it is remembered that according to our way of instructing these active little brains, people are brought to earth as babies in angels' arms, and that when they die they are taken back also in angels' arms. Now as the angel remains of constant size,—for this their pictures vouch —it follows that old people, when they are dead at least, must have shrivelled up to nursable dimensions; and as the child, when he philosophizes, knows nothing of miraculous or catastrophic changes, he naturally supposes that this shrivelling up is gradual like that of flowers and other things when they fade.[1]

I am disposed to think, then, that in this idea of senile shrinkage we have one of the most interesting and convincing examples of a child's philosophizing, of his impulse to reflect on what he sees and hears about with a view to systematise. Yet the matter requires further observation. Is it thoughtful, intelligent children, who excogitate this idea? Would it be possible to get the child's own explanation of it before he has completely outgrown it?[2]

The origin of babies and young animals furnishes the small brain, as we have seen, with much food for speculation. Here the little thinker is not often left to excogitate a

[1] Perhaps, too, our way of playfully calling children little old men and women favours the supposition that they are old people turned young again.

[2] Egger quotes a remark of a little girl: "I shall carry Emile (her older brother) when he gets little". This may, as Egger suggests, have been merely a confusion of the conditional and the future. But the idea about old people's shrinking cannot be dismissed in this summary way (see Perez, *First Three Years of Childhood*, p. 224).

theory for himself. His inconvenient questionings in this direction have to be firmly checked, and various and truly wonderful are the ways in which the nurse and the mother are wont to do this. Any fiction is supposed to be good enough for the purpose. Divine action, as remarked above, is commonly called in, the questioner being told that the baby has been sent down from heaven in the arms of an angel and so forth. Fairy stories with their pretty conceits, as that of the child Thumbkin growing out of a flower in Hans Andersen's book, contribute their suggestions, and so there arises a mass of child-lore about babies in which we can see that the main ideas are supplied by others, though now and again we catch a glimpse of the child's own contributions. Thus according to Stanley Hall's report the Boston children said, among other things, that God makes babies in heaven, lets them down or drops them for the women and doctors to catch them, or that he brings them down a wooden ladder backwards and pulls it up again, or that mamma, nurse or doctor goes up and fetches them in a balloon. They are said by some to grow in cabbages or to be placed by God in water, perhaps in the sewer, where they are found by the doctor, who takes them to sick folks that want them. Here we have delicious touches of childish fancy, quaint adaptations of fairy and Bible lore, as in the use of Jacob's ladder and of the legend of Moses placed among the bulrushes, this last being enriched by the thorough master-stroke of child-genius, the idea of the dark, mysterious, wonder-producing sewer. In spite too of all that others do to impress the traditional notions of the nursery here, we find that a child will now and again think out the whole subject for himself. The little boy C. is not the only one I find who is of the opinion that babies are got at a shop. Another little boy, I am informed, once asked his mamma in the abrupt childish manner, "Mamma, vere did Tommy (his own name) tum (come) from?" and then with the equally childish way of

sparing you the trouble of answering his question, himself observed, quite to his own satisfaction, "Mamma did tie (buy) Tommy in a s'op (shop)". Another child, seeing the announcement "Families Supplied" in a grocer's shop, begged his mother to get him a baby. This looks like a real childish idea. To the young imagination the shop is a veritable wonderland, an Eldorado of valuables, and it appears quite reasonable to the childish intelligence that babies like dolls and other treasures should be procurable there.

The ideas partly communicated by others, partly thought out for themselves are carried over into the beginnings of animal life. Thus, as we have seen, one little boy supposed that God helps pussy to have "'ickle kitties," seeing that she hasn't any kitties in eggs given her to sit upon.

Psychological Ideas.

We may now pass to some of the characteristic modes of child-thought about that standing mystery, the self. As our discussion of the child's ideas of origin, growth and final shrinkage suggests, a good deal of his most earnest thinking is devoted to problems relating to himself.

The date of the first thought about self, of the first dim stage of self-awareness, probably varies considerably in the case of different children according to rapidity of mental development and circumstances. The little girl, who was afterwards to be known as George Sand, may be supposed to have had an exceptional development; and the accident of infancy to which she refers as having aroused the earliest form of self-consciousness was, of course, exceptional too. There are probably many robust and dull children, knowing little of life's misery, and allowed in general to have their own way, who have but little more of self-consciousness than that, say, of a young, well-favoured porker.

The earliest idea of self seems to be obtained by the child through an examination by the senses of touch and

sight of his own body. A child has been observed to study his fingers attentively in the fourth and fifth month, and this scrutiny goes on all through the second year and even into the third.[1] Children seem to be impressed quite early by the fact that in laying hold of a part of the body with the hand they get a different kind of experience from that which they obtain when they grasp a foreign object. Through these self-graspings, self-strikings, self-bitings, aided by the very varied, and often extremely disagreeable operations of the nurse and others on the surface of their bodies, they probably reach during the first year the idea that their body is different from all other things, is 'me' in the sense that it is the living seat of pain and pleasure. The growing power of movement of limb, especially when the crawling stage is reached, gives a special significance to the body as that which can be moved, and by the movements of which interesting and highly impressive changes in the environment, *e.g.*, bangs and other noises, can be produced.

It is probable that the first ideas of the bodily self are ill-defined. It is evident that the head and face are not known at first as a *visible* object. The upper limbs by their movement across the field of vision would come in for the special notice of the eye. We know that the baby is at an early date wont to watch its hands. The lower limbs, moreover, seem to receive special attention from the exploring and examining hand.

There is some reason to think, however, that in spite of these advantages, the limbs form a less integral and essential part of the bodily self than the trunk. A child in his second year was observed to bite his own finger till he cried with pain. He could hardly have known it as a part of his sensitive body. Preyer tells us of a boy of nineteen months who when asked to give his foot seized it with both hands

[1] For the facts see Preyer, *op. cit.*, cap. xxii.; Tracy, *The Psychology of Childhood*, p. 47.

and tried to hand it over. A like facility in casting off from the self or alienating the limbs is illustrated in a story in the Worcester Collection of a child of three and a half years who on finding his feet stained by some new stockings observed: "Oh, mamma! these ain't my feet, these ain't the feet I had this morning". This readiness to detach the limbs shows itself still more plainly in the boy C.'s complaining when in bed and trying to wriggle into a snug position that his legs came in the way of himself. Here the legs seem to be half transformed into foreign persons; and this tendency to personify the limbs seems to be further illustrated in Laura Bridgman's pastime of spelling a word wrongly with one hand and then slapping that hand with the other.

Why, it may be asked, should a child attach this supreme importance to the trunk, when his limbs are always forcing themselves on his notice by their movements, and when he is so deeply interested in them as the parts of the body which do things? I suspect that the principal reason is that a child soon learns to connect with the trunk the recurrent and most impressive of his feelings of comfort and discomfort, such as hunger, thirst, stomachic pains and the corresponding reliefs. We know that the "vital sense" forms the sensuous basis of self-consciousness in the adult, and it is only reasonable to suppose that in the first years of life, when it fills so large a place in the consciousness, it has most to do with determining the idea of the sentient or feeling body. Afterwards the observation of maimed men and animals would confirm the idea that the trunk is the seat and essential portion of the living body. The language of others too by identifying 'body' and 'trunk' would strengthen the tendency.

About this interesting trunk-body, what is inside it, and how it works, the child speculates vastly. References to the making of bone, the work of the stomach, and so forth have to be understood somehow. It would be interesting

to get at a child's unadulterated view of his anatomy and physiology. The Worcester Collection illustrates what funny ideas a child can entertain of the mechanism of his body. A little girl between five and six thought it was the little hairs coming against the lids which made her sleepy.

At a later stage of the child's development, no doubt, when he comes to form the idea of a conscious thinking 'I,' the head will become a principal portion of the bodily self. In the evolution of the self-idea in the race, too, we find that the soul was lodged in the trunk long before it was assigned a seat in the head. As may be seen in C.'s case children are quite capable of finding their way, in part at least, to the idea that the soul has its lodgment in the head. But it is long before this thought grows clear. This may be seen in children's talk, as when a girl of four spoke of her dolly as having no sense in her *eyes*. Even when a child learns from others that we think with our brains he goes on supposing that our thoughts travel down to the mouth when we speak.

Very interesting in connexion with the first stages of development of the idea of self is the experience of the mirror. It would be absurd to expect a child when first placed before a mirror to recognise his own face. He will smile at the reflexion as early as the tenth week, though this is probably merely an expression of pleasure at the sight of a bright object. If he is held in the nurse's arms before a glass when about six months old a baby may at once show that he recognises the image of the familiar face of the nurse by turning round to the real face, whereas he will not recognise his own. He appears at first and for some months to take it for a real object, sometimes smiling to it as to a stranger and even kissing it, or, as in the case of a little girl (fifteen months old), offering it things and saying 'Ta' (sign of acceptance). In many cases curiosity prompts to an attempt to grasp the mirror-figure with the hand, to turn up the glass, or to put the hand behind it in

order to see what is really there. This is very much like the behaviour of monkeys before a mirror, as described by Darwin and others. Little by little the child gets used to the reflexion, and then by noting certain agreements between his bodily self and the image, as the movement of his hands when he points, and partly, too, by a kind of inference of analogy from the doubling of other things by the mirror, he reaches the idea that the reflexion belongs to himself. By the sixtieth week Preyer's boy had associated the name of his mother with her image, pointing to it when asked where she was. By the twenty-first month he did the same thing in the case of his own image.[1]

An infant will, we know, take a shadow to be a real object and try to touch it. Some children on noticing their own and other people's shadows on the wall are afraid as at something uncanny. Here, too, in time the strange phenomenon is taken as a matter of course and referred to the sun.

We are told that the phenomena of reflexions and shadows, along with those of dreams, had much to do with the development, in the early thought of the race, of the animistic conception that everything has a double nature and existence. Do children form similar ideas? We can see from the autobiography of George Sand how a clever girl, reflecting on the impressive experience of the echo, excogitates such a theory of her double existence; and we know, too, that the boy Hartley Coleridge distinguished among the 'Hartleys' a picture Hartley and a shadow Hartley. C.'s biography suggests that being photographed may appear to a child as a transmutation, if not a doubling, of the self. But much more needs to be known about these matters.

The prominence of the bodily pictorial element in the child's first idea of self is seen in the tendency to restrict

[1] See the very full account of the mirror experiment in Preyer's book, p. 459 *seq.*

personal identity within the limits of an unchanged bodily appearance. The child of six, with his shock of curls, refuses to believe that he is the same as the hairless baby whose photograph the mother shows him. How different, how new, a being a child feels on a Sunday morning after the extra weekly cleansing and brushing and draping. The bodily appearance is a very big slice of the content of most people's self-consciousness, and to the child it is almost everything.

But in time the conscious self, which thinks and suffers and wills, comes to be dimly discerned. I believe that a real advance towards this true self-consciousness is marked by the appropriation and use of the difficult forms of language, 'I,' 'me,' 'mine'. This will be dealt with in another essay.

Sometimes the apprehension of the existence of a hidden self distinct from the body comes as a sudden revelation, as to little George Sand. Such a swift awakening of self-consciousness is apt to be an epoch-making and memorable moment in the history of the child.

A father sends me the following notes on the development of self-consciousness: "My girl, three years old, makes an extraordinary distinction between her body and herself. Lying in bed she shut her eyes and said: 'Mother, you can't see me now'. The mother replied: 'Oh, you little goose, I can see you but you can't see me'. To which she rejoined: 'Oh, yes, I know you can see *my body*, mother, but you can't see *me*'." The same child about the same time was concerned for the reality of her own existence. One day playing with her dolls she asked her mother: "Mother, am *I* real, or only a pretend like my dolls?" Here again, it is plain, the emphasis was laid on something non-corporeal, something that animated the body, and not a mere bit of mechanism put inside it. Two years later she showed a still finer intellectual differentiation of the visible and the invisible self. Her brother

happened to ask her what they fed the bears on at the Zoo. She answered impulsively: "Dead babies and that sort of thing". On this the mother interposed: "Why, F., you don't think mothers would give their dead babies to the animals?" To this she replied: "Why not, mother? It's only their bodies. I shouldn't mind your giving mine." This contempt for the body is an excellent example of the way in which a child when he gets hold of an idea pushes it to its logical extreme. This little girl by-the-bye was she who, about the same age, took compassion on the poor autumn leaves dying on the ground, so that we may suppose her mind to have been brooding at this time on the conscious side of existence.

The mystery of self-existence has probably been a puzzle to many a thoughtful child. A lady, a well-known writer of fiction, sends me the following recollection of her early thought on this subject: "The existence of other people seemed natural: it was the 'I' that seemed so strange to me. That I should be able to perceive, to think, to cause other people to act, seemed to me quite to be expected, but the power of feeling and acting and moving about myself, under the guidance of some internal self, amazed me continually."

It is of course hard to say how exactly the child thinks about this inner self. It seems to me probable that, allowing for the great differences in reflective power, children in general, like uncivilised races, tend to materialise it, thinking of it dimly as a film-like shadow-like likeness of the visible self. The problem is complicated for the child's consciousness by religious instruction with its idea of an undying soul.

As may be seen in the recollections just quoted, this early thought about self is greatly occupied with its action on the body. Among the many things that puzzled the much-questioning little lad already frequently quoted was this: "How do my thoughts come down from my brain to

my mouth: and how does my spirit make my legs walk?" C.'s sister when four years and ten months old wanted to know how it is we can move our arm and keep it still when we want to, while the curtain can't move except somebody moves it. The first attempts to solve the puzzle are of course materialistic, as may be seen in our little questioner's delightful notion of thoughts travelling through the body. This form of materialism, however, I find surviving in grown-ups and even in students of psychology, who are rather fond of talking about sensations travelling up the nerves to the brain.

Very curious are the directions of the first thought about the past self. The idea of personal identity, so dear to philosophers, does not appear to be fully reached at first. On the contrary, as we shall see in the case of C., the past self is divorced from the present under the image of the opposite sex in the odd expression: "when I was a little girl". This probably illustrates the importance of the bodily appearance as a factor in the self, for C. had, I believe, been photographed when in the petticoat stage, and no doubt looked back on this person in skirts as a girl. This is borne out by the fact that another little boy when about three and a half years old asked his mother: "Was I a girl when I was small?" and that the little questioner whom I have called our zoologist was also accustomed to say: "When I was a 'ickle dirl (girl)". But discarded petticoats do not explain all the child's ideas about his past self. This same little zoologist would also say, "When I was a big man," to describe the state of things long, long ago. What does this mean? In discussing the quaint idea of senile shrinkage I have suggested that a child may think of human existence as a series of transformations from littleness to bigness, and the reverse, and here we have lighted on another apparent evidence of it. For though we are apt to call children 'old men' we do not suggest to them that they are or have been big men.

The difficulty to the child of conceiving of his remote past, is surpassed by that of trying to understand the state of things before he was born. The true mystery of birth for the child, the mystery which fascinates and holds his mind, is that of his beginning to be. This is illustrated in C.'s question: "Where was I a hundred years ago? Where was I before I was born?" It remains a mystery for all of us, only that after a time we are wont to put it aside. The child, on the other hand, is stung, so to say, by the puzzle, his whole mind being roused to passionate questioning.

It is curious to note the differences in the attitude of children's minds towards the mystery. The small person accustomed to petting, to be made the centre of others' thought and action, may be struck with the blank in the common home life before his arrival. A lady was talking to her little girl H., aged three years, about something she had done when she was a child. H. then wanted to know what she was doing then, and was told by her mother: "Oh, you were not here at all". She seemed quite amazed at this, and said: "And what did you do without H.? Did you cry all day for her?" On being informed that this was not the case, she seemed quite unable to realise how her mother could have existed without her. There is something of the charming egoism of the child here, but there is more: there is the vague expression of the unifying integrating work of love. Lovers, one is told, are wont to think in the same way about the past before they met, and became all in all to one another. For this little girl with her strong sense of human attachment, the idea of a real life without that which gave it warmth and gladness was a contradiction.

Sometimes again, in the more metaphysical sort of child, the puzzle relates to the past existence of the outer world. We have all been perplexed by the thought of the earth and sky, and other folk existing before we were,

and going on to exist after we cease to be; though here again, save in the case of the philosopher perhaps, we get used to the puzzle. Children may be deeply impressed with this apparent contradiction. Jean Ingelow in her interesting reminiscences thus writes of her puzzlings on this head: "I went through a world of cogitation as to whether it was really true that anything had been and lived before I was there to see it. . . . I could think there might have been some day when I was very little—as small as the most tiny pebble on the road—but not to have been at all was so very hard to believe." A little boy of five who was rather given to saying 'clever' things, was one day asked by a visitor, who thought to rebuke what she took to be his conceit: "Why, M., however did the world go round before you came into it?" M. at once replied: "Why, it *didn't* go round. It only began five years ago." Was this, as perhaps nine persons out of ten would say, merely a bit of dialectic smartness, the evasion of an awkward question by denying the assumed fact? I am disposed to think that there was more, that the virtuous intention of the visitor had chanced to discover a hidden child-thought; for the child is naturally a Berkeleyan, in so far at least that for him the reality of things is reality for his own sense-perceptions. A world existent before he was on the spot to see it, seems to the child's intelligence a contradiction.

A child will sometimes use theological ideas as an escape from this puzzle. The myth of babies being brought down from heaven is particularly helpful. The quick young intelligence sees in this pretty idea a way of prolonging existence. The brother of the little girl that was so concerned to know what her mother had done without her, happened one day to be passing a street pump with his mother, when he stopped and observed with perfect gravity: "There are no pumps in heaven where I came from". He had evidently thought

out the legend of the God-sent baby to its logical consequences.

Children appear to have very vague ideas about time. Their minds cannot at first of course rise to the abstraction, time, or duration, or to its measured portions, as a day. They talk about the days as if they were things. Thus to-day, yesterday, and to-morrow, which, as we may see in C.'s way of talking about time, are used very vaguely for present, past and future, are spoken of as things which move. A girl of four asked: 'Where is yesterday gone to?' and 'Where will to-morrow come from?' The boy C. as well as other children, as we saw, asked where all the days go to. Such expressions may of course be figurative, a child having no other way of describing the sequence yesterday and to-day, to-day and to-morrow; yet I am disposed to think that these are examples of the child's 'concretism,' his reduction of our abstractions to living realities.[1]

It is equally noticeable that children have no adequate mental representations of our time-measurements. As in the case of space, so in that of time their standard is not ours: an hour, say the first morning at school, may seem an eternity to a child's consciousness. The days, the months, the years seem to fly faster and faster as we get older. On the other hand, as in the case of space-judgments, too, the child through his inability to represent time on a large scale is apt to bring the past too near the present. Mothers and young teachers would be surprised if they knew how children interpreted their first historical instruction introduced by the common phrase, 'Many years ago,' or similar expression. A child of six years when crossing the Red Sea asked to be shown Pharaoh and his hosts. This looks like the effect of a vivid imagination of

[1] A child quoted by P. Lombroso thought of a year as a round thing having the different festivals on it, and bringing these round in due order by its rotation (*op. cit.*, p. 49).

the scene, which even in grown people may beget an expectation of seeing it here and now. The following anecdote of a boy of five and a half years sent me by his aunt more clearly illustrates a child's idea of the historical past. "H. was beginning to have English history read to him and had got past the 'Romans' as he said. One day he noticed a locket on my watch-chain, and desired that it should be opened. It contained the hair of two babies both dead long before. He asked about them. I told him they died before I was born. 'Did father know them?' he asked. 'No, they died before *he* was born.' 'Then who knew them and when did they live?' he asked, and as I hesitated for a moment, seeking how to make the matter plain, 'Was it in the time of the Romans?' he gravely asked." The odd-looking historical perspective here was quite natural. He had to localise the babies' existence somewhere, and he could only do it conjecturally by reference to the one far-off time of which he had heard, and which presumably covered all that was before the life-time of himself and of those about him.

Theological Ideas.

We may now pass to another group of children's ideas, a group already alluded to, those which have to do with the invisible world, with death and what follows this—God and heaven. Here we find an odd patchwork of thought, the patchwork-look being due to the heterogeneous sources of the child's information, his own observations of the visible world on the one hand, and the ideas supplied him by what is called religious instruction on the other. The characteristic activity of the child-mind, so far as we can disengage it, is seen in the attempt to co-ordinate the disparate and seemingly contradictory ideas into something like a coherent system.

Like the beginning of life, its termination, death, is one of the recurring puzzles of childhood. This might be

illustrated from almost any autobiographical reminiscences of childhood. Here indeed the mystery, as may be seen in C.'s case, is made the more impressive and recurrent to consciousness by the element of dread. A little girl of three and a half years asked her mother to put a great stone on her head, because she did not want to die. She was asked how a stone would prevent it, and answered with perfect childish logic: "Because I shall not grow tall if you put a great stone on my head; and people who grow tall get old and then die".

Death seems to be thought of by the unsophisticated child as the body reduced to a motionless state, devoid of breath and unable any longer to feel or think. This is the idea suggested by the sight of dead animals, which but few children, however closely shielded, can escape.

The first way of envisaging death seems to be as a temporary state like sleep, which it so closely resembles. A little boy of two and a half years, on hearing from his mother of the death of a lady friend, at once asked: "Will Mrs. P. still be dead when we go back to London?"

The knowledge of burial gives a new and terrible turn to his idea of death. He now begins to speculate much about the grave. The instinctive tendency to carry over the idea of life and sentience to the buried body is illustrated in C.'s fear lest the earth should be put over his eyes. The following observation from the Worcester Collection illustrates the same tendency. "A few days ago H. (aged four years four months) came to me and said: 'Did you know they'd taken Deacon W. to Grafton?' I. 'Yes.' H. 'Well, I s'pose it's the best thing. His folks (meaning his children) are buried there, and they wouldn't know he was dead if he was buried here.'" This reversion to savage notions of the dead in speaking of a Christian deacon has a certain grim humour. All thoughts of heaven were here forgotten in the absorbing interest in the fate of the body.

Do children when left to themselves work out a theory of another life, that of the soul away from the dead deserted body? It is of course difficult to say, all children receiving some instruction at least of a religious character respecting the future. One of the clearest approaches to spontaneous child-thought that I have met with here is supplied by the account of the Boston children. "Many children (writes Professor Stanley Hall) locate all that is good and imperfectly known in the country, and nearly a dozen volunteered the statement that good people when they die go to the country—even here from Boston." The reference to good people shows that the children are here trying to give concrete definiteness to something that has been said by another. These children had not, one suspects, received much systematic religious instruction. They had perhaps gathered in a casual way the information that good people when they die are to go to a nice place. Children pick up much from the talk of their better-instructed companions which they only half understand. In any case it is interesting to note that they placed their heaven in the country, the unknown beautiful region, where all sorts of luxuries grow. One is reminded of the idea of the happy hunting grounds to which the American Indian consigns his dead chief. It would have been interesting to examine these Boston children as to how they combined this belief in going to the country with the burial of the body in the city.

In the case of children who pick up something of the orthodox religious creed the idea of going to heaven has somehow to be grasped and put side by side with that of burial. How the child-mind behaves here it is hard to say. It is probable that there are many comfortable and stupid children who are not troubled by any appearance of contradiction. As we saw in the remark of the American child about the deacon, the child-mind may oscillate between the native idea that the man lives on in a sense

underground, and the alien idea that he has passed into heaven. Yet undoubtedly the more thoughtful kind of child does try to bring the two ideas into agreement. The boy C. attempted to do this first of all by supposing that the people who went to heaven (the good) were not buried at all; and later by postponing the going to heaven, the true entrance being that of the body by way of the tomb. Other ways of getting a consistent view of things are also hit upon. Thus a little girl of five years thought that the *head* only passed to heaven. This was no doubt a way of understanding the communication from others that the 'body' is buried. This inference is borne out by another story of a boy of four and a half who asked how much of his legs would have to be cut off when he was buried. The legs were not the 'body'. But the idea of the head passing to heaven meant more than this. It pretty certainly involved a localisation of the soul in the crown of the body, and it may possibly have been helped by pictures of cherub heads. Sometimes this process of child-thought reflects that of early human thought, as when a little boy of six said that God took the breath to heaven (*cf.* the ideas underlying *spiritus* and *πνεῦμα*).

In what precise manner children imagine the entrance into heaven to take place I do not feel certain. The legend of being borne by angels through the air probably assists here. As we have seen, children tend to think of people when they die as shrinking back to baby-dimensions so as to be carried in the angels' arms.

The idea of people going to heaven is, as we know, pushed by the little brain to its logical consequences. Animals when they die pass to another place also. A boy three years and nine months asked whether birds, insects, and so forth go to heaven where people go when they die. Yet a materialistic tendency shows itself here, especially in connexion with the observation that animals are eaten. A little American boy in his fifth year was playing

with a tadpole till it died. Immediately the other tadpoles ate it up, and the child burst out crying. His elder sister with the best of intentions tried to comfort him by saying: 'Don't cry, William, he's gone to a better place'. To which rather ill-timed assurance he retorted sceptically: 'Are his brothers and sisters' stomachs a better place?'

Coming now to ideas of supernatural beings, it is to be noted that children do not wholly depend for their conceptions of these on religious or other instruction. The liveliness of their imagination and their impulses of dread and trust push them on to a spontaneous creation of invisible beings. In C.'s haunting belief in the wolf we see a sort of survival of the tendency of the savage to people the unseen world with monsters in the shape of demons. Another little boy of rather more than two years who had received no religious instruction acquired a similar haunting dread of 'cocky,' the name he had given to the cocks and hens when in the country. He localised this evil thing in the bathroom of the house, and he attributed pains in the stomach to the malign influence of 'cocky'.[1] Fear created the gods, said an ancient writer; and in this invention of evil beings bent on injuring him the child of a modern civilised community may reproduce the process by which man's thoughts were first troubled by the apprehension of invisible and supernatural agents.

On the other hand we find that the childish impulse to seek aid leads to a belief in a more benign sort of being. C.'s staunch belief in his fairies who could do the most wonderful things for him, and more especially his invention of the rain-god (the "Rainer"), are a clear illustration of the working of this impulse.

Even here, of course, while we can detect the play of a spontaneous impulse, we have to recognise the influence of instruction. C.'s tutelary deities, the fairies, were no doubt *suggested* by his fairy stories; even though, as in the myth

[1] See *Mind*, vol. xi., p. 149.

of the Rainer, we see how his active little mind proceeded to work out the hints given him into quite original shapes. This original adaptation shows itself on a large scale where something like systematic religious instruction is supplied. An intelligent child of four or five will in the laboratory of his mind turn the ideas of God and the devil to strange account. It would be interesting, if we could only get it, to have a collection of all the hideous eerie forms by which the young imagination has endeavoured to interpret the notion of the devil. His renderings of the idea of God appear to show hardly less of picturesque diversity.[1]

It is to be noted at the outset that for the child's intelligence the ideas introduced by religious instruction at once graft themselves on to those of fairy-lore. Mr. Spencer has somewhere ridiculed our university type of education with its juxtaposition of classical polytheism and Hebrew monotheism. One might, perhaps, with still greater reason, satirise the mixing up of fairy-story and Bible-story in the instruction of a child of five. Who can wonder that the little brain should throw together all these wondrous invisible forms, and picture God as an angry or amiable old giant, the angels as fairies and so forth? In George Sand's child-romance of *Corambé* we see how far this blending of the ideas of the two domains of the invisible world can be carried.

For the rest, the child in his almost pathetic effort to catch the meaning of this religious instruction proceeds in his characteristic matter-of-fact way by reducing the abstruse symbols to terms of familiar every-day experience. He has to understand and he can only understand by assimilating to homely terrestrial facts. Hence the undisguised materialism of the child's theology. According to Stanley Hall's

[1] According to Professor Earl Barnes, the Californian children seem to occupy themselves but little with the devil and hell. See his interesting paper, "Theological Life of a Californian Child," *Pedagogical Seminary*, ii., 3, p. 442 *seq.*

collection of observations, God was imaged by one child as a man preternaturally big—a big blue man ; by another as a huge being with limbs spread all over the sky ; by another as so immensely tall that he could stand with one foot on the ground, and touch the clouds,—strong like the giant, his prototype. He is supposed, in conformity with what is taught, to have his home in heaven, that is just the other side of the blue and white floor, the sky. He is so near the clouds that according to one small boy (our little friend the zoologist) these are a sort of pleasaunce, composed of hills and trees, which he has made to saunter in. But some children are inventive even in respect of God's whereabouts. He has been regarded as inhabiting one of the stars. One of Mr. Kratz's children localised him 'up in the moon,' an idea which probably owes something to observation of the man in the moon. We note, too, a tendency to approximate heaven and earth, possibly in order to account for God's frequent presence and activity here. Thus one of Mr. Kratz's children said that God was "up on the hill," and one little girl of five was in the habit of climbing an old apple tree to visit him and tell him what she wanted.

Diversities of feeling, as well as differences in the mode of instruction and in intelligence, seem to reflect themselves in these ideas of the divine dwelling-place. As we have seen, the childish intelligence is apt to envisage God as a sort of grand lord with a house or mansion. Two different tendencies show themselves in the thought about this dwelling-place. On the one hand the feeling of childish respect, which led a German girl of seven to address him in the polite form, 'Ich bitte Sie,' leads to a beautifying of his house. According to some of the Bostonian children he has birds, children, and Santa Claus living with him. Others think of him as having a big park or pleasaunce with trees, flowers, as well as birds. The children are perhaps our dead people who in time will be sent back to earth. Whether the birds, that I find come in again and

again in the ideas of heaven, are dead birds, I am not sure. While however there is this half-poetical adorning of God's palace, we see also a tendency to humanise it, to make it like our familiar houses. This is quaintly illustrated in the following prayer of a girl of seven whose grandfather had just died: "Please, God, grandpapa has gone to you. Please take great care of him. Please always mind and shut the door, because he can't stand the draughts." We see the same leaning to homely conceptions in the question of a little girl of four: 'Isn't there a Mrs. God?'

While thus relegated to the sublime regions of the sky God is supposed to be doing things, and of course doing them for us, sending down rain and so forth. What seems to impress children most, especially boys, in the traditional account of God is his power of making things. He is emphatically the artificer, the demiurgos, who not only has made the world, the stars, etc., but is still kept actively employed by human needs. According to the Boston children he fabricates all sorts of things from babies to money, and the angels work for him. The boy has a great admiration for the maker, and our small zoologist when three years and ten months old, on seeing a group of working men returning from their work, asked his astonished mother: "Mamma, is these gods?" "God!" retorted his mother, "why?" "Because," he went on, "they makes houses, and churches, mamma, same as God makes moons, and people, and 'ickle dogs." Another child watching a man repairing the telegraph wires that rested on a high pole at the top of a lofty house, asked if he was God. In this way the child is apt to think of God descending to earth in order to make things. Indeed, in their prayers, children are wont to summon God as a sort of good genius to do something difficult for them. A boy of four and a half years was one day in the kitchen with his mother, and would keep taking up the knives and using them. At last his mother said: "L., you will cut your fingers, and if you

do they won't grow again". He thought for a minute and then said with a tone of deep conviction: "But God would make them grow. He made *me*, so he could mend my fingers, and if I were to cut the ends off I should say, 'God, God, come to your work,' and he would say, 'All right'."[1]

While this way of recognising God as the busy artificer is common, it is not universal. The child's deity, like the man's (as Feuerbach showed), is a projection of himself, and as there are lazy children, so there is a child's God who is a luxurious person sitting in a lovely arm-chair all day, and at most putting out from heaven the moon and stars at night.

This admiration of God's creative power is naturally accompanied by that of his skill. A little boy once said to his mother he would like to go to heaven to see Jesus. Asked why, he replied: "Oh! he's a great conjurer". The child had shortly before seen some human conjuring and used this experience in a thoroughly childish fashion by envisaging in a new light the New Testament miracle-worker.

The idea of God's omniscience seems to come naturally to children. They are in the way of looking up to older folks as possessing boundless information. C.'s belief in the all-knowingness of the preacher, and his sister's belief in the all-knowingness of the policeman, show how readily the child-mind falls in with the notion.

On the other hand I have heard of the dogma of God's infinite knowledge provoking a sceptical attitude in the child-mind. This seems to be suggested in a rather rude remark of a boy of four, bored by the long Sunday dis-

[1] To judge from a story for the truth of which I will not vouch children will turn the devil to the same useful account. A little girl was observed to write a letter and to bury it in the ground. The contents ran something like this: "Dear Devil, please come and take aunt—soon, I cannot stand her much longer". The burying is significant of the devil's dwelling-place.

course of his mother: "Mother, does God know when you are going to stop?" Our astute little zoologist, when five years and seven months old, in a talk with his mother, impiously sought to tone down the doctrine of omniscience in this way: "I know a 'ickle more than Kitty, and you know a 'ickle more than me; and God knows a 'ickle more than you, I s'pose; then he can't know so very much after all".

Another of the divine attributes does undoubtedly shock the childish intelligence: I mean God's omnipresence. It seems, indeed, amazing that the so-called instructor of the child should talk to him almost in the same breath about God's inhabiting heaven, and about his being everywhere present. Here, I think, we see most plainly the superiority of the child's mind to the adult's, in that it does not let contradictory ideas lie peacefully side by side, but makes them face one another. To the child, as we have seen, God lives in the sky, though he is quite capable of coming down to earth when he wishes or when he is politely asked to do so. Hence he rejects the idea of a diffused ubiquitous existence. The idea which is apt to be introduced early as a moral instrument, that God can always see the child, is especially resented by that small, sensitive, proud creature, to whom the ever-following eyes of the portrait on the wall seem a persecution. Miss Shinn, a careful American observer of children, has written strongly, yet not too strongly, on the repugnance of the child-mind to this idea of an ever-spying eye.[1] My observations fully confirm her conclusions here. Miss Shinn speaks of a little girl, who, on learning that she was under this constant surveillance, declared that she "would *not* be so tagged". A little English boy of three, on being informed by his older sister that God can see and watch us while we cannot see him, thought awhile, and then in an apologetic tone said: "I'm very sorry, dear, I can't (b)elieve you". What the sister, aged fifteen, thought of this is not recorded. An

[1] *Overland Monthly*, Jan., 1894, p. 12.

American boy of five, learning that God was in the room and could see even if the shutters were closed, said: "I know, it's jugglery".

When the idea is accepted odd devices are excogitated for the purpose of making it intelligible. Thus one child thought of God as a very small person who could easily pass through the keyhole. The idea of God's huge framework illustrated above is probably the result of an attempt to figure the conception of omnipresence. Curious conclusions too are sometimes drawn from the supposition. Thus a little girl of three years and nine months one day said to her mother in the abrupt childish manner: "Mr. C. (a gentleman she had known who had just died) is in this room". Her mother, naturally a good deal startled, answered: "Oh, no!" Whereupon the child resumed: "Yes, he is. You told me he is with God, and you told me God was everywhere, so as Mr. C. is with God he must be in this room." With such trenchant logic does the child's intelligence cut through the tangle of incongruous ideas which we try to pass off as methodical instruction.

It might easily be supposed that the child's readiness to pray to God is inconsistent with what has just been said. Yet I think there is no real inconsistency. Children's idea of prayer is, probably, that of sending a message to some one at a distance. The epistolary manner noticeable in many prayers seems to illustrate this.[1] The mysterious whispering is, I suspect, supposed in some inscrutable fashion known only to the child to transmit itself to the divine ear.

Of the child's belief in God's goodness it is needless to say much. For these little worshippers he is emphatically the friend in need who can help them out of their difficulties in a hundred ways. Our small zoologist thanked God for making "the sea, the holes with crabs in them, and the trees, the fields, and the flowers," and regretted that he did

[1] *Cf.* the story of writing a letter to the devil given above.

not follow up the making of the animals we eat by doing the cooking also. As their prayers show he is ever ready to make nice presents, from a fine day to a toy-gun, and will do them any kindness if only they ask prettily. Happy the reign of this untroubled optimism. For many children, alas, it is all too short, the colour of their life making them lose faith in all kindness, and think of God as cross and even as cruel.

One of the real difficulties of theology for the child's intelligence is the doctrine of God's eternity. Puzzled at first with the fact of his own beginning, he comes soon to be troubled with the idea of God's having had no beginning. C. showed a common trend of childish thought in asking what God was like in his younger days. The question, "Who made God?" seems to be one to which all inquiring young minds are led at a certain stage of child-thought. The metaphysical impulse of the child to follow back the chain of events *ad infinitum* finds the ever-existent unchanging God very much in the way. He wants to get behind this "always was" of God's existence, just as at an earlier stage of his development he wanted to get behind the barrier of the blue hills. This is quaintly illustrated in the reasoning of a child observed by M. Egger. Having learnt from his mother that before the world there was only God the Creator, he asked: "And before God?" The mother having replied, "Nothing," he at once interpreted her answer by saying: "No; there must have been the place (*i.e.*, the empty space) where God is". So determined is the little mind to get back to the 'before,' and to find something, if only a prepared place.

Other mysteries of which the child comes to hear find their characteristic solution in the busy little brain. A friend tells me that when a child he was much puzzled by the doctrine of the Trinity. He happened to be an only child, and so he was led to put a meaning into it by

assimilating it to the family group, in which the Holy Ghost became the mother.

I have tried to show that children seek to bring meaning, and a consistent meaning, into the jumble of communications about the unseen world to which they are apt to be treated. I agree with Miss Shinn that children about three and four are not disposed to theologise, and are for the most part simply confused by the accounts of God which they receive. Many of the less bright of these small minds may remain untroubled by the incongruities lurking in the mixture of ideas, half mythological or poetical, half theological, which is thus introduced. Such children are no worse than many adults, who have a wonderful power of entertaining contradictory ideas by keeping them safely apart in separate chambers of their brain. The intelligent thoughtful child on the other hand tries at least to reconcile and to combine in an intelligible whole. His mind has not, like that of so many adults, become habituated to the water-tight compartment arrangement, in which there is no possibility of a leakage of ideas from one group into another. Hence his puzzlings, his questionings, his brave attempts to reduce the chaos to order. I think it is about time to ask whether parents are doing wisely in thus adding to the perplexing problems of early days.

V.

THE LITTLE LINGUIST.

Prelinguistic Babblings.

No part of the life of a child appeals to us more powerfully perhaps than the first use of our language. The small person's first efforts in linguistics win us by a certain graciousness, by the friendly impulse they disclose to get mentally near us, to enter into the full fruition of human intercourse. The difficulties, too, which we manage to lay upon the young learner of our tongue, and the way in which he grapples with these, lend a peculiar interest, half pathetic, half humorous, to this field of infantile activity. To the scientific observer of infancy, moreover, the noting of the stages in the acquisition of speech is of the first importance. Language is sound moulded into definite forms and so made vehicular of ideas; and we may best watch the unfoldings of childish thought by attending to the way in which the word-sculptor takes the plastic sound-material and works it into its picturesque variety of shapes.

A special biological and anthropological interest attaches to the child's first essays in the use of words. Language is that which most obviously marks off human from animal intelligence. One of the most interesting problems in the science of man s origin and early development is how he first acquired the power of using language-signs. If we proceed on the biological principle that the development of the individual represents in its main stages that of the race, we may expect to find through the study of children's

use of language hints as to how our race came by the invaluable endowment. How far it is reasonable to expect from a study of nursery linguistics a complete explanation of the process by which man became speechful, *homo articulans*, will appear later on. But an examination of these linguistics ought surely to be of some suggestive value here.

While there is this peculiar scientific interest in the first manifestations of the speech-faculty in the child, they are of a kind to lend themselves particularly well to a methodic and exact observation. Articulate sounds are sensible objects having well-defined characters which may be accurately noted and described where the requisite fineness of ear and quickness of perception are present. The difficulties are no doubt great here: but they are precisely the difficulties to sharpen the appetite of the true naturalist. Hence we need not wonder that early articulation fills a large place in the naturalist's observation of infant life. Preyer, for example, devotes one of the three sections of his well-known monograph to this subject, and gives us a careful and elaborate account of the progress of articulation and of speech up to the end of the period dealt with (first three years).

Since these studies are especially concerned with the characteristics of the child after language has been acquired I shall not enter into the history of his rudimentary speech at any great length. At the same time, since language is a realm of activity in which the child betrays valuable characteristics long after the third year, it deserves a special study in this volume.

As everybody knows, long before the child begins to speak in the conventional sense he produces sounds. These are at first cries and wanting in the definiteness of true articulate sounds. Such cries are expressive, that is, utterances of changing conditions of feeling, pain and pleasure, and are also instinctive, springing out of certain congenital

nervous arrangements by which feeling acts upon the muscular organs. This crying gradually differentiates itself into a rich variety of expressions for hunger, cold, pain, joy and so forth, of which it is safe to say that the majority of nurses and mothers have at best but a very imperfect knowledge.

These cries disclose from the first a germ of articulate sound, *viz.*, according to Preyer an approach to the vowel sounds *ŭ* (oo) and *ä* (Engl. *a* in 'made'). This articulate element becomes better defined and more varied in the later cries, and serves in part to differentiate them one from the other. Thus a difference of shade in the *a* (in 'ah'), difficult to describe, has been observed to mark off the cry of pleasure and of pain. Along with this articulate sounds begin to appear in periods of happy contentment under the form of infantile babbling or 'la-la-ing'. Thus the child will bring out a string of *a* and other vowel sounds. In this baby-twittering the several vowel sounds of our tongue become better distinguishable, and are strung together in queer ways, as *ai-ā-au-â*. An attempt is made by Preyer and others to give the precise order of the appearance of the several vowel sounds. It is hardly to be expected that observers would agree upon a matter so difficult to seize and to describe; and this is what we find.[1] After allowing, however, for differences in the reading off, it seems probable that there is a considerable diversity in the order of development in the case of different children. This applies still more to the appearance of the consonantal sounds which long before the end of the sixth month become combined with the vowels into syllabic sounds, as *pa*, *ma*, *mam*, and so forth. Thus, though the labials *b*, *p*,

[1] See Preyer, *op. cit.*, Cap. 20; *cf.* the account given by De la Calle, Perez, *First Three Years*, p. 248. Stanley Hall observes that the first vocalisation of the infant could hardly be classified even with the help of Bell's phonic notation or with a phonograph (*Pedagogical Seminary*, i., p. 132)

m, seem to come first in most cases, they may be accompanied, if not preceded, by others, as the back open sound *ch* (in Scotch 'loch'), or (according to Preyer and others) by the corresponding voiced sound, the hard *g*. Similarly, sounds as *l* and *r*, which commonly appear late, are said in some instances to occur quite early.[1] Attempts have been made to show that the order of sounds here corresponds with that of advancing physiological difficulty or amount of muscular effort involved. Yet apart from the fact just touched on, that the order is not uniform, it is very questionable whether the more common order obeys any such simple physiological law.

This primordial babbling is wonderfully rich and varied. According to Preyer it contains most, if not all the sounds which are afterwards used in speaking, and among these some which cause much difficulty later on. It is thus a wondrous contrivance of nature by which the child is made to rehearse months beforehand for the difficult performances of articulate speech. It is a preliminary trying of the vocal instrument throughout the whole of its register.

Though nurses are apt to fancy that in this pretty babbling the infant is talking to itself there is no reason to think that it amounts even to a rudiment of true speech. To speak is to use a sound intentionally as the sign of an idea. The babbling baby of five months cannot be supposed to be connecting all these stray sounds with ideas, if indeed it can be said to have as yet any definite ideas. The only signification which this primitive articulation can have is emotional. Undoubtedly, as we have seen, it grows out of expressive cries. Even the happy bubblings over of vowel sounds as the child lies on his back and 'crows,' may be said to be expressive of his happiness like the movements of arms and legs which accompany it. Yet it would be an exaggeration to suppose that the elaborate phonation is

[1] Preyer's boy first used consonants in the combinations *tahu*, *gö*, (*röööö* = the French *eu*), *op. cit.*, p. 366; *cf.* Cap. 21

merely expressive, that all the manifold and subtle changes of sound are due to obscure variations of feeling.

The true explanation seems to be that the appearance of this infantile babbling, just like that of the movements of the limbs which accompany it, is the result of changes in the nervous system. As the centres of vocalisation get developed, motor impulses begin to play on the muscles of throat, larynx, and, later on, lips, tongue, etc., and in this way a larger and larger variety of sound and sound-combination is produced. Such phonation is commonly described as impulsive. It is instinctive, that is to say, unlearnt, and due to congenital nervous connexions; and at best it can only be said to express in its totality a mood or relatively permanent state of feeling.

As this impulsive articulation develops it becomes complicated by a distinctly intentional element. The child hears the sounds he produces and falls in love with them. From this moment he begins to go on babbling for the pleasure it brings. We see the germ of such a pleasure-seeking babbling in the protracted iterations of the same sound. The first reduplications and serial iterations, *a-a*, *ma-ma*, etc., may be due to physiological inertia, the mere tendency to move along any track that happens to be struck, the very same tendency which makes a prosy speaker go on repeating himself. At the same time there is without doubt in these infantile iterations a rudiment of self-imitation. That is to say, the child having produced a sound, as *na* or *am*, impulsively proceeds to repeat the performance in order to obtain a renewal of the sound-effect. This renewed impulse may be supposed further to bring with it a germ of the pleasure of iteration of sound, or assonance. The addition of a simple rhythmic character to the series of sounds is a further indication of its pleasure-seeking character. Indeed we have in this infantile 'la-la-ing' more a rudiment of song and music than of articulate speech. The rude vocal music of savages consists of a

similar rhythmic threading of meaningless sounds in which as in this infantile song changes of feeling reflect themselves. We may best describe this infantile babbling then as voice-play and as rude spontaneous singing, the utterance of a mood, indulged in for the sake of its own delight, and serving by a happy arrangement of nature as a preliminary practice in the production of articulate or linguistic sounds.

Transition to Articulate Speech.

Let us now seek to understand how this undesigned trying of the articulate instrument passes into true significant articulation, how this speech-protoplasm develops into the organism that we call language. And here the question at once arises: Does the child tend to utilise the sounds thus acquired as signs apart from the influence of education, that is to say, of the articulate sounds produced by others and impressed as signs upon his attention? The question is not easy to answer owing to the early development of the imitative impulse and to the constant and all-pervading influence of education in the nursery. Yet I will offer a tentative answer.

That a child when he has reached a certain stage of intelligence would be able to make use of signs quite apart from example and education is what one might expect. Any one who has noticed how a young cat, completely isolated from the influence of example, will spontaneously hit on the gesture of touching the arm of a person sitting at a meal by way of asking to be fed, cannot be surprised that children should prove themselves capable of inventing signs. We know, too, that deaf-mutes will, self-prompted, develop among themselves an elaborate system of gesture-signs, and further express their feelings and desires by sounds, which though not heard by themselves may be understood by others and so serve as effective signs of their needs and wishes. The normal child, too, in spite of

the powerful influences which go to make him adopt as signs the articulate sounds employed by others, shows a germ of unprompted and original sign-making. The earliest of such unlearnt signs are simple gesture-movements, such as stretching out the arms when the child desires to be taken by the nurse.[1] Nobody has suggested that these are learnt by imitation. The same is true of other familiar gesture-movements, which appear towards the end of the first year or later, as pulling your dress just as a dog does, when the child wants you to go with him, touching the chair when he wants you to sit down, or (as Darwin's child did when just over a year) taking a bit of paper and pointing to the fire by way of signifying his wish to see the paper burnt. The gesture of pointing, though no doubt commonly aided by example, is probably capable of being reached instinctively as an outgrowth from the grasping movement.

These gesture-signs, I find, play a larger part in the case of children who are backward in talking, and so are nearer the condition of the deaf-mute. Thus a lady in sending me notes on her three children remarks that the one who was particularly backward in his speech made a free use of gesture-signs. When sixteen months old he had certain *general* signs of this sort, using a sniff as a sign of flower, and a mimic kiss as a sign of living things, *i.e.* all sorts of animals.[2]

Just as movements may thus be used instinctively, that is, without aid from others' example, both as expressing simple feelings and desires, and also, as in the case just mentioned, as indicating ideas, so spontaneously formed

[1] The nature of gesture, its relation to language proper, and its prevalence in infancy, among imbecile children, deaf-mutes, etc., are discussed by Romanes, *Mental Evolution in Man*, chap. vi.

[2] A charming example of pantomimic gesture on the part of a little girl in describing to her father her first bath in the sea is given by Romanes, *op., cit.*, p. 220.

sounds may be used as signs. As pointed out above the first self-prompted articulation is closely connected with feeling, and we find that in the second half-year when the preliminary practice has been gone through certain sounds take on a distinctly expressive function. Thus one little boy when eight months old habitually used the sound 'ma-ma' when miserable, and 'da-da' when pleased. Among these instinctive expressive sounds one of the most important is that indicative of hunger. I find again and again that a special sound is marked off as a mode of expression or sign of this craving. This fact will be referred to again presently.

True language-sounds significant of things grow out of this spontaneous expressive articulation. Thus the demonstrative sign *da* which accompanies the pointing, and which seems to be frequently used with slight modifications by German as well as by English children, is probably in its inception merely an interjectional expressio of the faint shock of wonder produced by the appearance in the visual field of a new object. But used as a concomitant of the pointing gesture it takes on a demonstrative or indicative function, announcing the presence or arrival of an object in a particular locality or direction. A somewhat similar case is that of 'ata' or 'tata,' a sign used to denote the departure or disappearance of an object. These signs are, as Preyer shows, spontaneous and not imitative (*e.g.*, of 'there' (da), 'all gone'). This is confirmed by the fact that they vary greatly. Thus Preyer's boy used for "there" 'da,' 'nda,' 'nta,' etc., and for "all gone" 'atta,' 'f-tu,' 'tuff,' etc. Again, Tiedemann's boy used the sound 'ah-ah,' and one of Stanley Hall's children the sound 'eh,' when pointing to an object. We may conclude then that there are spontaneous vocal reactions expressive of the contrasting mental states answering to the appearance or arrival and the disappearance or departure of an impressive and interesting object, and that, further,

these reactions when recognised by others tend to become fixed as linguistic signs.[1]

Just as in the case of the gesture-movements, sniffing, kissing, so in that of expressive vocal sounds we may see a tendency to take on the function of true signs of ideas. One of the best illustrations of this is to be found in the invention of a word-sound for things to eat. I have pointed out that the state of hunger with its characteristic misery becomes at an early stage marked off by a distinctive expressive sign. At a later stage this or some other sound comes to be used intelligently as a means of *asking* for food. Darwin's boy employed the sound *mum* in this way; another English child used 'numby,' and yet another 'nini'; a French child observed by M. Taine made use of 'ham'. The predominance of the labial *m* shows the early formation of these quasi-linguistic signs, and suggests that they were developed out of the primary instinctive '*m*' sound.[2] Such sounds, coming to be understood by the nurse, tend to become fixed as modes of asking for food.

It seems but a step from the demand 'Give me food' to the pointing out or naming of things as food. And so good an observer as Darwin says that his boy used the sound 'mum' not only for conveying the demand or command 'Give me food,' but also as a substantive 'food' of wide application. He later went on to erect a rudimentary classification on the basis of this substantive, calling sugar 'shu-mum' and even breaking up this subdivision by calling liquorice "black shu-mum".[3] This however seems, so far as I can ascertain, to be exceptional. In most vocabularies of children of two or three no generic term for food is found,

[1] See Preyer, *op. cit.*, pp. 353, 390, 391.

[2] See the quotation from Lieber, in Taine's *On Intelligence*, part ii., book iv., chap. i. The sign for 'I want to eat' is in some cases formed by a generalising process out of a sound supplied by another, as the name of a particular edible. See the example given by Preyer, *op. cit.*, p. 362.

[3] See *Mind*, vol. ii., p. 293.

though names for particular kinds of food, *e.g.*, milk, bread, are in use. This agrees with the general order of development of thought-signs, the names of easily distinguished species appearing in the case of the individual as in that of the race before those of comprehensive and 'abstract' genera such as 'food'. It is probable, therefore, that these early signs for food are but imperfectly developed into true thought-symbols or names. They retain much of their primordial character as expressions of desire and possibly of the volitional state answering to a command. This is borne out by the fact that the child spoken of by Taine used the sound 'tem' as a sort of general imperative for 'give!' 'take!' 'look!' etc.[1]

Another early example of an emotional expression passing into a germinal sign is that called forth at the sight of moving creatures. This acts as a strong stimulus to the baby brain, and vigorous muscular reactions, vocal and other, are wont to appear. One little boy of twelve and three-quarter months usually expressed his excitement by the sound "Dō-boo-boo," which was used regularly for about ten days on the appearance of a dog, a horse, a bird, and so forth. Here we have a protoplasmic condition of the lingual organism which we call a name, a condition destined never to pass into another and higher. Sometimes, however, these explosives at the sight of animal life grow into comparatively fixed signs of recognition.

In this spontaneous invention of quasi-linguistic sounds imitation plays a considerable part. It is evident, indeed, that gestures are largely imitative. Thus the sniff and the mimic kiss referred to just now are plainly imitations of movements. The pointing gesture, too, may be said to be a kind of imitation of the reaching and appropriating movement of the arm. The sound 'do-boo-boo' used on seeing an animal was probably imitative. According to Preyer the sounds called forth by the sight of moving objects,

[1] See *Mind*, vol. ii., p. 255.

e.g., rolling balls and wheels, are imitative.[1] Whether the signs of hunger, 'mum,' 'numby,' are due to modifications of the movements carried out in sucking, seems to be more problematic.[2]

In certain cases imitation is the one sufficient source of the sound. In what are called onomatopoetic sounds the child seeks to mimic some natural sound, and such imitation is capable of becoming a fruitful source of original linguistic invention. A boy between nine and ten months imitated the sound of young roosters by drawing in his breath, and this noise became for a time a kind of name for any feathered creature, including small birds. More commonly such onomatopoetic sounds come to be distinctive recognition-signs of particular classes of animals, such as 'oua-oua' or 'bow-wow' for the dog, 'moo-moo' for the cow, 'ouack-ouack' or 'kuack' for the duck, and so forth.

It may, of course, be said that these mimic sounds are in part learnt from the traditional vocabulary of the nursery, in which the nurse takes good care to instruct the child. But it is to be remembered that the traditional nursery language itself is largely an adoption of children's own sounds. There is, moreover, ample independent evidence to show that children are zealous and indefatigable imitators of the sounds they hear as of the movements they see. Towards the end of the first six months and during the second half-year a child is apt to imitate eagerly any sound you choose to produce before him. In the case of Preyer's boy this impulse to repeat the sounds he heard developed into a kind of echoing mania. The acquisition of others' language plainly depends on the existence and the vigour of this mimetic impulse. And this same impulse leads the child beyond the servile adoption of our conventional

[1] *Op. cit.*, p. 358.

[2] A fact that appears to tell against imitation here is that one little boy of seventeen months used the sound 'did'n' for anything to eat.

sounds to the invention of new or onomatopoetic sounds. Thus one little child discovered the pretty sound 'tin-tin' as a name for the bell. Another child, a girl, quite unprompted, used a chirping sound for a bird, and a curious clicking noise on seeing the picture of a horse (no doubt in imitation of the sound of a horse's hoofs); while a little boy used a faint whistle to indicate a bird, and the sound 'click-click' to denote a horse. In some cases a grown-up person's imitation of a sound is imitated. Thus a child of about two used the sound 'afta' as a name for drinking, and also for drinking-vessel, "in imitation of the sound of sucking in air which the nurse used to make when *pretending to drink*".[1]

In these two sources of original child-language, expression of states of feeling, desire, etc., and imitation, we have the two commonly assigned origins of human language. Into the difficult question how man first came to the use of language-sounds I do not propose to enter here. Whatever view may be taken with respect to the first beginnings of human speech, there seems little doubt that both expressive cries and imitations of natural sounds have had their place. To this extent, then, we may say that there is a parallelism between the early evolution of language in the case of the individual and in that of the race. Not only so, it may be said that our study of these tentatives of the child in language-formation tends to confirm the conclusions of philology and anthropology that the current of human speech did probably originate, in main part at least, by way of these two tributaries.[2]

[1] Quoted by Romanes, *Mental Evolution in Man*, p. 143.

[2] The concerted cries during co-operative work to which Noirée ascribes the origin of language-sounds would seem, while having a special physiological cause as concomitant and probably auxiliary motor processes, to be analogous at least to emotional cries, in so far as they spring out of a peculiar condition of feeling, that of effort. On the other hand, as *concerted* they came under the head of imitative movements. So far as I can learn the nursery supplies no analogies to these utterances.

While vocal sounds which are clearly traceable to emotional expressions or to imitations form the staple of the normal child's inventions they do not exhaust them. Some of these early self-prompted linguistic sounds cannot be readily explained. I find, for example, that children are apt to invent names for their nurses and sometimes for themselves which, so far as I can ascertain, bear no discoverable resemblance to the sounds used by others. Thus the same little girl that invented 'numby' for food and 'afta' for drinking called her nurse 'Lee' though no one else called her by any other name than 'nurse'. It is difficult to suppose that the child was transforming the sound 'nurse' in this case. Preyer's boy called his nurse, whom others addressed as Marie, 'Wolá,' which Preyer explains rather forcedly as deriving by inversion from the frequently heard 'Ja wohl!' A lady friend informs me that her little boy when thirteen months old called himself 'Bla-a,' though he was always addressed by others as Jeffrey, and that he stuck to 'Bla-a' for six months.[1] A germ of imitation is doubtless recognisable here in the preservation of the syllabic form or structure (that of monosyllable or dissyllable). Yet the amount of transformation is, to say the least, surprising in children, who show themselves capable of fairly close imitation. Possibly a child's ear notes analogies of sound which escape our more sophisticated organ. However this be, the fact of such origination of names (other than those clearly onomatopoetic) is noteworthy.

Lastly a reference may be made to the fact that children have shown themselves capable of inventing the rudiments of a simple kind of language. Professor Horatio Hale of America has made a special study of these spontaneous child-languages. One case is that of twin American boys

[1] His brother when one year old called his nurse, whose real name was Maud, Bur, which was probably a rough rendering of 'nurse'.

who when the talking age came employed not the English sounds that they heard others speak but a language of their own. Another, and in some ways more remarkable case, is that of a little girl who at the age of two was backward in speaking, only using the names 'papa' and 'mamma,' and who, nevertheless, at that age, and in the first instance without any stimulus or aid from a companion, proceeded to invent a vocabulary and even simple sentence-forms of her own, which she subsequently prevailed on a younger brother to use with her. The vocables struck out, though suggesting some slight aural acquaintance with French—which, however, was never spoken in her home—are apparently quite arbitrary and not susceptible of explanation by imitation.[1]

I think the facts here brought together testify to the originality of the child in the field of linguistics. It may be said that in none of these cases is the effect of education wholly absent. A child, as we all know, is taught the names of objects and actions long before he can articulate. Thus Darwin's boy knew the name of his nurse five months before he invented the vocable 'mum'. It is obvious indeed that wherever children are subjected to normal training their sign-making impulse is stimulated by the example of others. At the same time the facts here given show that the working of this impulse may, in a certain number of children at least, strike out original lines of its own independently of the direct action of example and education. What is wanted now is to experiment carefully with an intelligent child, encouraging him to make signs by patient attention and ready understanding, but at the same time carefully abstaining from giving the lead or even taking up and adopting the first utterances so as to bring in the influence of imitation. I think there is little doubt that a child so situated might develop the rudiments

[1] For a summary of Professor Hale's researches see Romanes, *Mental Evolution in Man*, p. 138 ff.

of a vocal language. The experiment would be difficult to carry out, as it would mean the depriving of the child for a time of the advantages of education.[1]

Beginnings of Linguistic Imitation.

The learning of the mother-tongue is one of the most instructive and, one may add, the most entertaining chapters in the history of the child's education. The brave efforts to understand and follow, the characteristic and quaint errors that often result, the frequent outbursts of originality in bold attempts to enrich our vocabulary and our linguistic forms—all this will repay the most serious study, while it will provide ample amusement.

As pointed out above the learning of the mother-tongue is essentially a kind of imitation. The process is roughly as follows. The child hears a particular sound used by another, and gradually associates it with the object, the occurrence, the situation, along with which it again and again presents itself. When this stage is reached he can understand the word-sound as used by another though he cannot as yet use it. Later, by a considerable interval, he learns to connect the particular sound with the appropriate vocal action required for its production. As soon as this connexion is formed his sign-making impulse imitatively appropriates it by repeating it in circumstances similar to those in which he has heard others employ it.

The imitation of others' articulate sounds begins, as already remarked, very early and long before the sign-making impulse appropriates them as true words. The

[1] Of course, as Max Müller says (*The Science of Language*, i., p. 481 f.), the facts ascertained do not prove that 'infants *left to themselves* would invent a language'. The influence of example, the appeal to the imitative impulse, has been at work before the inventions appear. Yet they do, I think, show that they have the sign-making instinct, and might develop this to some extent even were the educative influence of others' language removed.

impulse to imitate others' movements seems first to come into play about the end of the fourth month; and traces of imitative movements of the mouth in articulation are said to have been observed in certain cases about this time. But it is only in the second half-year that the imitation of sounds becomes clearly marked. At first this imitation is rather of tone, rise and fall of voice, and apportioning of stress or accent than of articulate quality; but gradually the imitation takes on a more definite and complete character.[1]

Towards the end of the year, in favourable cases, true linguistic imitation commences. That is to say, word-sounds gathered from others are used as such. Thus, a boy of ten months would correctly name his mother, 'Mamma,' his aunt, 'Addie' (Aunty), and a person called Maggie, 'Aggie'.[2] As already suggested, this imitative reproduction of others' words synchronises, roughly at least, with the first onomatopoetic imitation of natural sounds.

Transformations of our Words.

As is well known the first tentatives in the use of the common speech-forms are very rough. The child in reproducing transforms, and these transformations are often curious and sufficiently puzzling.

The most obvious thing about these first infantile renderings of the adult's language is that they are a simplification. This applies to all words alike. Monosyllables if involving a complex mass of sound are usually reduced, as when 'dance' is shortened to 'da'. This clearly illustrates the difficulty of certain sound-combinations, a point to be touched on presently. More striking is the habitual reduction of dissyllables and polysyllables.

[1] Preyer's boy gave the first distinct imitative response to articulate sound in the eleventh month. This is, so far as I can ascertain, behind the average attainment.

[2] Tracy, *The Psychology of Childhood*, p. 71.

Here we note that the child concentrates his effort on the reproduction of a part only of the syllabic series, which part he may of course give but very imperfectly. The shortening tends to go to the length of reducing to a monosyllable. Thus 'biscuit' becomes 'bik,' 'Constance' 'tun,' 'candle' 'ka,' 'bread and butter' 'bup' or 'bŭ'. Polysyllables, though occasionally cut down to monosyllables, as when 'hippopotamus' became 'pots,' are more frequently reduced to dissyllables, as when 'periwinkle' was shortened to 'pinkle'. Handkerchief is a trying word for the English child, and for obvious reasons has to be learnt. It was reduced by the eldest child of a family to 'hankish,' by the two next to 'hamfish' and by the last two to 'hanky'. The little girl M. also reduced the last two syllables to 'fish,' making the sound 'hanfish'.

There seems to be no simple law governing these reductions of verbal masses. The accentuated syllable, by exciting most attention, is commonly the one reproduced, as when 'nasturtium' became 'turtium'.[1] In the case of long words the position of a syllable at the beginning or at the end of the word seems to give an advantage in this competition of sounds, the former by impressing the sound as the first heard (compare the way in which we note and remember the initial sound of a name),[2] the latter by impressing it as the last heard, and therefore best retained. The unequal articulatory facility of the several sound-combinations making up the word may also have an influence on this unconscious selection. I think it not unlikely, too, that germs of a kind of æsthetic preference

[1] In the reduction of 'Constance' to 'tun' the same thing is seen, for this child uniformly turned *k*'s into *t*'s. *Cf.* Preyer, *op. cit.*, p. 397.

[2] It has been pointed out to me by Dr. Postgate that the secondary stress on the first syllable of English words over four syllables (and some four-syllabled words) may assist in impressing the first syllable.

for certain sounds as new, striking or fine, may co-operate here.[1]

Such simplification of words is from the first opposed, and tends in time to be counteracted, by the growth of a feeling for their general form as determined by the number of syllables, as well as the distribution of stress and any accompanying alterations of tone or pitch. The infant's first imitations of the sounds 'good-bye,' 'all gone,' and so forth, by couples which preserve hardly anything of the articulatory character, though they indicate the syllabic form, position of stress, and rising and falling inflection, illustrate the early development of this feeling. Hence we find in general an attempt to reproduce the number of syllables, and also to give the proper distribution of stress. Thus 'biscuit' becomes 'bítchic,' 'cellar' 'sítoo,' 'umbrella' 'nobélla,' 'elephant' 'étteno,' or (by a German child) 'ewebón,' 'kangaroo' 'kógglegoo,' 'hippopotamus' 'ippenpótany,' and so forth.[2]

As suggested above there goes from the first with the cutting down of the syllabic series a considerable alteration of the single constituent sounds. The vowel sounds are rarely omitted; yet they may be greatly modified, and these modifications occur regularly enough to suggest that the child finds certain nuances of vowel sounds comparatively hard to reproduce. Thus the short *ă* in hat, and the long *ī* (ai), seem to be acquired only after considerable practice.[3] But it is among the consonants that most

[1] Recent psychological experiments show that similar influences are at work when a person attempts to repeat a long series of verbal sounds, say ten or twelve nonsense syllables. Initial or final position or accent may favour the reproduction of a member of such a series.

[2] Here again we see a similarity between a child's repetition of a name heard, and an adult's attempt to repeat a long series of syllabic sounds. In the latter case also there is a general tendency to preserve the length and rhythmic form of the whole series.

[3] With the diphthong or glide *ĭ* may be taken *oi*, which was first mastered by the child M. at the age of two years three months.

trouble arises. Many of these, as the sibilants or 'hisses,' *s*, *sh*, the various *l* and *r* sounds, the dentals, the "point-teeth-open" *th* and *dh* (in 'thin,' 'this'), the back or guttural 'stops,' *i.e.*, *k* and hard *g*, and others as *j* or soft *g* (as in 'James,' 'gem'), appear, often at least, to cause difficulty at the beginning of the speech period. With these must be reckoned such combinations as *st*, *str*.

In many cases the difficult sounds are merely dropped. Thus 'poor' may become 'poo,' 'look' 'ook,' 'Schulter' (German) 'Ulter'. In the case of awkward combinations this dropping is apt to be confined to the difficult sound, provided, that is to say, the other is manageable alone. Thus 'dance' becomes 'dan,' 'trocken' (German) becomes 'tokko'. More particularly *s* and *sh* are apt to be omitted before other consonants. Thus 'stair' becomes 'tair,' 'sneeze' 'neeze,' 'schneiden' (German) 'neida,' and so forth.

Along with such lame omissions we have the more vigorous procedure of substitutions. In certain cases there seems little if any kinship between the sounds or the articulatory actions by which they are produced. At the early stage more particularly almost any manageable sound seems to do duty as substitute. The early-acquired labials, including the labio-dental *f*, come in as serviceable 'hacks' at this stage. What we call lisping is indeed exemplified in this class of infantile substitutions. Children have been observed to say 'fank' for 'thank' and 'mouf' for 'mouth,' 'feepy' for 'sleepy,' 'poofie' for 'pussy,' 'wiver' for 'river,' 'Bampe' for 'Lampe' (German). The dentals, too, *d* and *t*, are turned to all kinds of vicarious service. Thus we find 'ribbon' rendered by 'dib,' 'gum' by 'dam,' 'Grete' (German) by 'Dete,' 'Gummi' (German) by 'Dummi,' 'cut' by 'tut,' and 'klopfen' (German) by 'topfen'. Similarly 'gee-gee' (horse), which oddly enough was first rendered by the child M. as 'dee-gee,' is altered to 'dee-dee'. I find too that new sounds are apt to be put to this

miscellaneous use. Thus one child after learning the aspirate (*h*) at two years not only brought it out with great emphasis in its proper place but began to use it as a substitute for other and unmanageable sounds. Thus he would say, 'hie down on hofa' for 'lie down on sofa'. The aspirate is further used in place of *sh*, as when 'shake' was rendered by 'hate,' and of *st*, as when Preyer's boy called 'Stern' 'Hern'. In other cases we see that the little linguist is trying to get as near as possible to the sound, and such approximations are an interesting sign of progress. Thus in one case 'chatterbox' was rendered by 'jabberwock,' in another case 'dress' by 'desh,' in another (Preyer's boy), 'Tisch' (German) by 'Tiss'.[1]

Besides omissions and substitution of sounds, occasional insertions are said to occur. According to one set of observations *r* may be inserted after the broad *a*, as when 'pocket' was rendered by 'barket'. A cockney is apt to do the same, as when he talks of having a 'barth' (bath). Yet this observation requires to be verified.

These alterations of articulate sound by the child remind one of the changes which the languages of communities undergo. We know, indeed, that these changes are due to imperfect imitation by succeeding generations of learners.[2] Hence we need not be surprised to find now and again analogies between these nursery transformations and those of words in the development of languages. In reproducing the sounds which he hears a child often illustrates a law of adult phonetic change. Thus changes within the same class of sounds, as the frequent alteration of 'this' into 'dis,' clearly correspond with those modifications recognised in Grimm's Law. So, too, the common substitution of a dental for a guttural has its parallel in the changes of racial

[1] I find according to the notes sent me that the sounds *s* and *sh* develop unequally in the cases of different children. Some acquire *s*, others *sh* before the other.

[2] See Sweet, *History of English Sounds*, p. 15.

language.[1] Nobody again can note the transformation of *n* into *m* before *f* in the form 'hamfish' for 'handkerchief' without thinking of the Greek change of *συν* into *συμ* before *β*, and like changes. Philologists may probably find many other parallels. One of them tells me that his little girl, on rendering *sh* by the guttural *h*, reproduced a change in Spanish pronunciation. M. Egger compares a child's rendering of '*tr*op' (French) by '*cr*op' with the transformation of the Latin '*tr*emere' into '*cr*aindre'.

I have assumed here that children's defective reproduction of our verbal sounds is the result of inability to produce certain sounds and not due to the want of a discrimination of the sounds by the ear. This may seem strange in the light of Preyer's statement that the earlier impulsive babbling includes most, if not all, of the sounds required later on for articulation. This may turn out to be an exaggeration, yet there is no doubt, I think, that certain sounds, including some as the initial *l* which are common in the earlier babbling stage, are not produced at the beginning of the articulatory period. As the avoidance of these occurs in all children alike it seems reasonable to infer that they involve difficult muscular combinations in the articulatory organ. At the same time it seems going too far to say, with Dr. F. Schultze, that the order of acquisition of sounds corresponds with the degree of difficulty. The very variability of this order in the case of different children shows that there is no such simple correspondence as this.[2]

The explanation of those early omissions and alterations is probably a rather complex matter. To begin with, the speech-organs of a child may lose special aptitudes by the development of other and opposed aptitudes. A friend of mine, a physiologist, tells me that his little boy who said 'ma-ma' (but not 'da-da') at ten months lost at the age of

[1] See Sievers, *Phonetik*, p. 230.

[2] *Cf.* Pollock, *Mind*, vi., p. 436, and Preyer, *op. cit.*, p. 434.

nineteen months the use of *m*, for which he regularly substituted *b*. He suggests that the nasal sound *m*, though easy for a child in the sucking stage and accustomed to close the lips, may become difficult later on through the acquisition of open sounds. It is worth considering whether this principle does not apply to other inabilities. This, however, is a question for the science of phonetics.

We must remember, further, that it is one thing to carry out an articulatory movement as a child of nine months carries it out, 'impulsively,' through some congenitally arranged mode of exciting the proper motor centre, another thing to carry it out volitionally, *i.e.*, in order to produce a desired result. This last means that the sound-effect of the movement has been learned, that the image or representation of it has been brought into definite connexion with a particular impulse, *viz.*, that of carrying out the required movement: and this is now known to depend on the formation of some definite neural connexion between the auditory and the motor regions of the speech-centre. This process is clearly more complex than the first instinctive utterance, and may be furthered or hindered by various conditions. Thus a child's own spontaneous babblings may not have sufficed to impress a particular sound on the memory; in which case his acquisition of it will be favoured or otherwise by the frequency with which it is produced by others in his hearing. It is probable that differences in the range and accuracy of production of sounds by nurse and mother tell from the first. The differences observable in the order of acquisition of sounds among children may be in part due to this, and not merely to differences in the speech-organ. It is probable, too, that children's attention may be especially called to certain sounds or sound-groups, either because of a preferential liking for the sounds themselves, or because of a special need of them as useful names. M.'s mother assures me that the child seemed to dislike particular sounds as *j*, which she could and did occasion-

ally pronounce, though she was given to altering them.[1] Another lady writes that her boy at the age of twenty-two months surprised her by suddenly bringing out the combination 'scissors'. He had just begun to use scissors in cutting up paper, and so had acquired a practical interest in this sound-mass.

We may now pass to another of the commonly recognised defects of early articulation, *viz.*, the transposition of sounds or metathesis. Sometimes it is two contiguous sounds which are transposed, as when 'star' is rendered by 'tsar' and 'spoon' by 'psoon'. Here the motive of the change is evidently to facilitate the combination. We have a parallel to this in the use of 'aks' (ax) for 'ask,' a transposition which was not long since common enough in the West of England.[2] In other transpositions sounds are shifted further from their place. Preyer quotes a case in which there was a dislocation of vowel sounds, *viz.*, in the transformation of 'bite' (German) into 'beti'.[3] Here there seems to be no question of avoiding a difficult combination. Other examples are the following: 'hoogshur' for 'sugar' (one of the first noticed at the age of two); 'mungar' for 'grandmamma,' 'punga' for 'grandpapa,' and 'natis' for 'nasty' (boy between eighteen and twenty-four months); and 'boofitul' for 'beautiful'. Here again we have an analogy to defective speech in adults. When a man is very tired he is liable to produce similar inversions of order. The explanation seems to be that the right group of sounds may present itself to the speaker's consciousness without any clear apprehension of their temporal order. Perhaps quasi-æsthetic preferences play a part here too. The child M.

[1] The same child, capriciously as it might look, would sometimes avoid *y*, as in saying 'esh' for 'yes,' though she regularly used this sound as a substitute for *l*, saying 'yook' for 'look,' and so on.

[2] See Sweet, *History of English Sounds*, p. 33; *cf.* also the change of 'frith' to 'firth'.

[3] *Op. cit.*, p. 397.

seems to have preferred the sequence *m-n* to *n-m*, saying 'jaymen' for 'geranium, 'burman' for 'laburnum'.

Another interesting feature in this early articulation is the impulse to double sounds, to get a kind of effect of assonance or of rhyme by a repetition of sound or sound-group. The first and simplest form of this is where a whole sound-mass or syllable is iterated, as in the familiar 'ba-ba,' 'gee-gee' 'ni-ni' (for nice). Some children frequently turn monosyllables into reduplications, making book 'boom-boom' and so forth. It is, however, in attempting dissyllables that the reduplication is most common. Thus 'naughty' becomes 'na-na,' 'faster' 'fa-fa,' 'Julia' 'dum-dum,' and so forth, where the repeated syllable displaces the second original syllable and so serves to retain something of the original word-form. In some cases the second and unaccented syllable is selected for reduplication, as in the instance quoted by Perez, 'peau-peau' for 'chapeau'. Such reduplications are sometimes aided by kinship of sound, as when the little girl M. changed 'purple' into its primitive form 'purpur'.

These early reduplications are clearly a continuation of the repetitions observable in the earlier babbling, and grow out of the same motive, the impulse to go on doing a thing, and the pleasure of repetition and self-imitation. As is well known, these reduplications have their parallel in many of the names used by savage tribes.[1]

In addition to these palpable reduplications of sound-masses we have repetitions of single sounds, the repeated sound being substituted for another and foreign one. This answers to what is called in phonetics 'assimilations'.[2] In the majority of cases the assimilation is 'progressive,' the change being carried out by a preceding on a

[1] See Tylor, *Primitive Culture*, i., 198. On the taking up of baby reduplications into language see the same work, i., 204. *Cf.* the same writer's *Anthropology*, p. 129.

[2] See above, p. 137; *cf.* Sievers, *Phonetik*, p. 236.

succeeding sound. Examples are 'Kikie' for 'Kitty,' and 'purpur' for 'purple'. This last transformation, though it was made by the little daughter of a distinguished philologist, was quite innocent of classical influence, and was clearly motived by the childish love of reduplication of sound. In many cases the substitution of an easy for a difficult sound seems to be determined in part by assimilation, as when 'another' was rendered by 'annunner,' 'gateau' (French) by 'ca-co'. The assimilation seems, too, sometimes to work "regressively," as when 'thick' becomes 'kick,' 'Bonnie Dundee' 'Bun-dun,' and 'tortue' (French) 'tu-tu,' in which two last reduplication is secured approximately or completely by change of vowel.[1] There seem also to be cases of what may be called partial assimilation, that is, a tendency to transform a sound into one of the same class as the first. "If (writes a mother of her boy) a word began with a labial he generally concluded it with a labial, making 'bird,' for example, 'bom'." But these cases are not, perhaps, perfectly clear examples of assimilation.

Along with the tendency to reduplicate syllabic masses, we see a disposition to use habitually certain favourite syllables as terminations, more particularly the pet ending '*ie*'. Thus 'sugar' becomes 'sugie,' 'picture' 'pickie,' and so forth. One child was so much in love with this syllable as to prefer it even to the common repetition of sound in onomatopoetic imitation, naming the hen not 'tuck-tuck' as one might expect, but 'tuckie'.

What strikes one in these early modifications of our verbal sounds by the child is the care for metrical qualities and the comparative disregard for articulatory characteristics. The number of syllabic sounds, the distribution of stress, as well as the rise and fall of vocal pitch, are the first things

[1] Dr. Postgate suggests that the current terms 'progressive' and 'regressive' would be better rendered by 'retrospective' and 'prospective'.

to be attended to, and these are, on the whole, carefully rendered when the constituent sounds are changed into other and often very unlike ones, and the order of the sounds is reversed. Again, the comparative fidelity in rendering the vowel sounds illustrates the prominence of the metrical or musical quality in childish speech. The love of reduplication, of the effect of assonance and rhyme, illustrates the same point. This may be seen in some of the more playful sayings of the child M., as 'Babba hiding, Ice (Alice) spiding (spying)'.

As I have dwelt at some length on the defective articulation of children, I should like to say that their early performances, so far from being a discredit to them, are very much to their credit. I, at least, have often been struck with the sudden bringing forth without any preparatory audible trial of difficult combinations, and with a wonderful degree of accuracy. A child can often articulate better than he is wont to do. The little girl M., when one year six months, being asked teasingly to say 'mudder,' said with a laugh 'mother,' quite correctly—but only on this one occasion. The precision which a child, even in the second year, will often give to our vocables is quite surprising, and reminds me of the admirable exactness which, as I have observed, other strangers to our language, and more especially perhaps Russians, introduce into their articulation, putting our own loose treatment of our language to the blush. This precision, acquired as it would seem without any tentative practice, points, I suspect, to a good deal of silent rehearsal, nascent groupings of muscular actions which are not carried far enough to produce sound.

The gradual development of the child's articulatory powers, as indicated partly by the precision of the sounds formed, partly by their differentiation and multiplication, is a matter of great interest. At the beginning, when he is able to reproduce only a small portion of a vocable, there is of course but little differentiation. Thus it has

been remarked by more than one observer, that one and the same sound (so far at least as our ears can judge) will represent different lingual signs, 'ba' standing in the case of one child for both 'basket' and 'sheep' ('ba lamb'), and 'bo' for 'box' and 'bottle'. Little by little the sound grows differentiated into a more definite and perfect form, and it is curious to note the process of gradual evolution by which the first rude attempt at articulate form gets improved and refined. Thus, writes a mother, "at eighteen to twenty months 'milk' was 'gink,' at twenty-one months it was 'ming,' and soon after two years it was a sound between 'mik' and 'milk'." The same child in learning to say 'lion' went through the stages 'ŭn' (one year eight months), 'ion' (two years), and 'lion' (two years and eight months). The little girl M., in learning the word 'breakfast,' advanced by the stages 'bepper,' 'beffert,' 'beffust'. In an example given by Preyer, 'grosspapa' (grandpapa) began as 'opapa,' this passed into 'gropapa,' and this again into 'grosspapa'. In another case given by Dr. Fritz Schultze the word 'wasser' (pronounced 'vasser') went through the following stages: (1) 'faffaff,' (2) 'vaffvaff,' (3) 'vasse,' and (4) 'vasser'. In this last we have an interesting illustration of a struggle between the imitative impulse to reproduce the exact sound and the impulse to reduplicate or repeat the sound, this last being very apparent in the introduction of the second *v* and the *ff* in the first stage, and in the substitution of the *f*'s for *v*'s under the influence of the dominant final sound in the second stage. The student of the early stages of language growth might, one imagines, find many suggestive parallels in these developmental changes in children's articulation.

The rapidity of articulatory progress might be measured by a careful noting of the increase in the number of vocables mastered from month to month. Although Preyer and others have given lists of vocables used at particular ages,

and parents have sent me lists, I have met with no methodical record of the gradual extension of the articulate field. It is obvious that any observations under this head, save in the very early stages, can only be very rough. No observer of a talkative child, however attentive, can make sure of all the word-sounds used. It is to be noted, too, as we have seen above, that a child will sometimes show that he can master a sound and will even make a temporary use of it, without retaining it as a part of the permanent linguistic stock.[1]

Logical Side of Children's Language.

It is now time to pass from the mechanical to the logical side of this early child-language, to the meanings which the small linguist gives to his articulate sounds and the ways in which he modifies these meanings. The growth of a child's speech means a concurrent progress in the mastery of word-forms and in the acquisition of ideas. In this each of the two factors aids the other, the advance of ideas pushing the child to new uses of sounds, and the growing facility in word-formation reacting powerfully on the ideas, giving them definiteness of outline and fixity of structure. I shall not attempt here to give a complete account of the process, but content myself with touching on one or two of its more interesting aspects.

A child acquires the proper use or application of a word by associating the sound heard with the object, situation or action in connexion with which others are observed to use

[1] As samples of the observations the following may be taken. A friend tells me his boy when one year old used just 50 vocables. The performances vary greatly. One American girl of twenty-two months had 69, whereas another about the same age had 136, just twice the number. A German girl eighteen months old is said by Preyer to have used 119 words, and to have raised this to 435 in the next six months. The composition of these early vocabularies will occupy us presently.

it. But the first imitation of words does not show that the little mind has seized their full and precise meaning. A clear and exact apprehension of meaning comes but slowly, and only as the result of many hard thought-processes, comparisons and discriminations.

In these first attempts to use our speech, the child's mind is innocent of grammatical distinctions. These arise out of the particular uses of words in sentence-structure, and of this structure the child has as yet no inkling. If, then, following a common practice, I speak of a child of twelve or fifteen months as *naming* an object, the reader must not suppose that I am ascribing to the baby-mind a clear grasp of the function of what grammarians call nouns (substantives). All that is implied in this way of speaking, is that the infant's first words are used mainly as recognition-signs. There is from the first, I conceive, even in the gesture of pointing and saying 'da!' a germ of this naming process.

The progress of this rude naming or articulate recognition is very interesting. The names first learnt are either those of individuals, what we call proper names, as 'mamma,' 'nurse,' or those which, like 'bath,' 'bow-wow,' are at first applied to one particular object. It is often supposed that a child uses these as true singular names, recognising individual objects as such. But this is pretty certainly an error. He cannot note differences well enough or grasp a sufficient number of differential marks to know an individual as such, and he will, as occasion arises, quite spontaneously extend his names to other things which happen to have some interesting and notable points in common with the first. Thus 'bow-wow,' though first applied to one particular dog, is, as we know, at once extended to other dogs, pictures of dogs, and not infrequently other things as well. If then we speak of the child as generalising or widening the application of his terms, we must not be taken to mean that he goes through a process

of comparing things which he perceives to be distinct, and discovering a likeness in these, but that he merely assimilates or recognises something like that which he has seen before without troubling to note the differences.

This extension of names or generalising process proceeds primarily and mainly by the feeling for the likenesses or the common aspects of things, though as we shall see presently their connexions of time and place afford a second and subordinate means of extension. The transference of a name from object to object through this apprehension of a likeness or assimilation has already been touched upon. It moves along thoroughly childish lines, and constitutes one of the most striking and interesting of the manifestations of precocious originality. Yet if unconventional in its mode of operation it is essentially thought-activity, a connecting of like with like, and a rudimentary grouping of things in classes.

This tendency to comprehend like things or situations under a single articulate sign is seen already in the use of the early indicative sign 'atta' (all gone). It was used by Preyer's child to mark not only the departure of a thing but the putting out of a flame, later on, an empty glass or other vessel. By another child it was extended to the ending of music, the closing of a drawer and so on. Here, however, the various applications probably answer more to a common feeling of ending or missing than to an apprehension of a common objective situation.

Coming to words which we call names we find that the child will often extend a recognition-sign from one object to a second, and to our thinking widely dissimilar object through the discovery of some analogy. Such extension, moving rather along poetic lines than those of our logical classifications, is apt, as we have seen, to wear a quaint metaphorical aspect. A star, for example, looked at, I suppose, as a small bright spot, was called by one child an eye. The child M. called the opal globe of a lighted lamp

a 'moon'. 'Pin' was extended by another child to a crumb just picked up, a fly, and a caterpillar, and seemed to mean something little to be taken between the fingers. The same child used the sound ''at' (hat) for anything put on the head, including a hair-brush. Another child used the word 'key' for other bright metal things, as money. Romanes' child extended the word 'star,' the first vocable learned after 'Mamma' and 'Papa,' to bright objects generally, candles, gas-flames, etc. Taine speaks of a child of one year who after first applying the word "fafer" (from "chemin de fer") to railway engines went on to transfer it to a steaming coffee-pot and everything that hissed or smoked or made a noise. In these last illustrations we have plainly a rudimentary process of classification. Any point of likeness, provided it is of sufficient interest to strike the attention, may thus serve as a basis of childish classification.

As with names of things so with those of actions. The crackling noise of the fire was called by one child 'barking,' and the barking of a dog was named by another 'coughing'. We see from this that the particular line of analogical extension followed by a child will depend on the nature of the first impressions or experiences which serve as his starting point.

A like originality is apt to show itself in the first crude attempt to seize and name the relations of things. The child C. called dipping bread in gravy 'ba' (bath). Another child extended the word 'door' to "everything that stopped up an opening or prevented an exit, including the cork of a bottle, and the little table that fastened him in his high chair".

In these extensions we see the tendency of child-thought towards 'concretism,' or the use of a simple concrete idea in order to express a more abstract idea. Children frequently express the contrast big, little, by the pretty figurative language 'Mamma' and 'baby'. Thus a small coin was

called by an American child a 'baby dollar'. Romanes' daughter, named Ilda, pointed out the sheep in a picture as 'Mamma-ba' and the lambs as 'Ilda-ba'. It is somewhat the same process when the child extends an idea obtained from the most impressive experience of childish difficulty, *viz.*, 'too big,' so as to make it do duty for the abstract notion 'too difficult' in general.

In this extension of language by the child we may discern, along with this play of the feeling for similarity, the working of association. This is illustrated by the case of Darwin's grandchild, who when just beginning to speak used the common sign 'quack' for duck, then extended this to water, then, following up this associative transference by a double process of generalisation, made the sound serve as the name of all birds and insects on the one hand, and all fluid substances on the other.[1]

The transference of the name 'quack' from the animal to the water is a striking example of the tendency of the young mind to view things which are presented together as belonging one to another and in a manner identical. Another curious instance is given by Professor Minto, in which a child, who applied the word 'mambro' to her nurse, went on to extend it by associative transference to the nurse's sewing machine, then by analogy applied it to a hand-organ in the street, later on, through an association of hand-organ with monkey, to his india-rubber monkey. Here we have a whole history of change of word-meaning illustrating in curiously equal measure the play of assimilation and of association, and falling within a period of two years.[2]

There is another way in which children are said to 'extend' names somewhat analogous to the processes of assimilation and associate transference. They are very fond of using the same word for opposed or other

[1] Quoted by Romanes, *Mental Evolution in Man*, p. 283.
[2] *Logic* (University Extension Manuals), pp. 83-84.

correlative ideas. In some cases we can see that this is due merely to confusion or want of discrimination. When, for example, Preyer's boy confused 'too little' with 'too much,' and 'yesterday' with 'to-morrow,' going so far as to make a compound 'heitgestern' (*i.e.*, heutegestern) to include both,[1] it is easy to see that the child's mind had reached merely the vague idea unsuitable in quantity in the one case, and time not present in the other; and that he failed to differentiate these ideas. In other cases where correlatives are confused, as when a child extended the sign of asking for an eatable ('bit-ye') to the act of offering anything to another, or when as in C.'s case 'spend' was made to do duty for 'cost,' 'borrow' for 'lend,' and 'learn' for 'teach,' the explanation is slightly different. A child can only acquire an idea of abstract relations slowly and by stages. Such words as *lend*, *teach*, call up first a pictorial idea of an action in which two persons are seen to be concerned. But the exact nature of the relation, and the difference in its aspect as we start from the one or the other term, are not perceived. Thus in thinking of a purchase over the counter, a child may be supposed to image the action but not clearly to distinguish the part taken by the person who buys and gives out money ('spends') and the part taken by the person who demands a price or fixes the cost. Perhaps we get near this vague awareness of a relation when we are aiding a violinist to tune his instrument. We may know that his note and our piano note do not accord, and yet be quite unable to determine their exact relation, and to fix the one as higher, the other as lower.

An interesting variety of this extension of names to correlatives is the transference of the attributes of causal agent to passive object, and *vice versâ*. Thus a little girl of four called her parasol when blown by the wind 'a windy parasol,' and a stone that made her hand sore 'a very sore

[1] See *op. cit.*, p. 420, also pp. 414 and 418.

stone'. A little Italian girl that had taken some nasty medicines expressed the fact by calling herself nasty ('bimba cattiva').[1]

There is much in the whole of these changes introduced by the child into the uses or meanings of words which may remind one of the changes which go on in the growth of languages in communities. Thus the child's metaphorical use of words, his setting forth of an abstract idea by some analogous concrete image, has its counterpart, as we know, in the early stages of human language. Tribes which have no abstract signs employ a metaphor exactly as the child does. Our own language preserves the traces of this early figurative use of words; as in 'imbecile,' weak, which originally meant leaning on a staff, and so forth.[2]

Again, we may trace in the development of languages the counterpart of those processes by which children spontaneously expand what logicians call the denotation of their names. The word 'sun' has only quite recently undergone this kind of extension by being applied to other centres of systems besides our familiar sun. The multiplicity of meanings of certain words, as 'post,' 'stock' and so forth, points to the double process of assimilative and associative extension which we saw illustrated in the use of the child's word 'mambro'.

Once more, the child's extension of a word from an idea to its correlative has its parallel in the adult's use of language. As the vulgar expression 'I'll larn you' shows (*cf.* the Anglo-Saxon *leornian*), a word may come to mean both to teach and to become taught. A like embracing of agent and object acted upon by the same word is seen in the 'active' and 'passive' meanings of words like the Latin *penetrabilis* ('piercing' and 'pierceable'), and in the 'objective' and 'subjective' meanings of 'pleasant' and

[1] Paola Lombroso, *Saggi di Psicologia del Bambino*, p. 16.

[2] See Trench's account of poetry in words, *On the Study of Words*, lect. vi.

similar words. We are beginning, like the little girl quoted above, to speak of a 'sore' topic. Lastly, the movement of thought underlying the saying of the little Italian girl, 'nasty baby,' seems to be akin to that of the savage when he supposes that he appropriates the qualities of that which he eats.

The changes here touched upon have to do with what philologists call generalisation. As supplementary to these there is in the case of the growth of a community-language a process of specialisation, as when 'physician' from meaning a student of nature has come to mean one who has acquired and can practically apply one branch of nature-knowledge. In the case of the child we have an analogue of this in the gradual limitation of names to narrower classes or to individuals as the result of carrying out certain processes of comparison and discrimination. Thus 'ba-ba,' which is used at first for a miscellaneous crowd of woolly or hairy quadrupeds, gets specialised as a name for a sheep, and the much-abused 'papa' becomes restricted to its rightful owner.

This process of differentiation and specialisation assumes an interesting form in a characteristic feature of the language-invention of both children and savages, *viz.*, the formation of compound words. These compounds are often true metaphors. Thus in the case already quoted where an eye-lid was called an eye-curtain the child may be said to have resorted to a metaphorical way of describing the lid. It is much the same when M. at the age of one year nine months invented the expression 'bwite (bright) penny' for silver pieces. A slightly different example is the compound 'foot-wing' invented by the child C. to describe the limb of a seal. As a further variety of this metaphoric formation I may quote the pretty name 'tell-wind' which a boy of four years and eight months hit upon as a name for the weather-vane.

In these and similar cases, there is at once an analogical transference of meaning (*e.g.*, from curtain to lid) or process

of generalisation, and a limitation of meaning by the appended or qualifying word 'eye,' and so a process of specialisation.

In certain cases the analogical extension gives place to what we should call a classification. One child for example, knowing the word steam-ship and wanting the name sailing-ship, invented the form 'wind-ship'. The little girl M., when one year and nine months old, showed quite a passion for classing by help of compounds, arranging the rooms into 'morner-room,' 'dinner-room' (she was fond of adding 'er' at this time) and 'nursery-room'.

It might be supposed from a logical point of view that in these inventions the qualifying or determining word would come more naturally after the generic name, as in the French *moulin à vent, cygne noir.* I have heard of one English child who used the form 'mill-wind' in preference to 'wind-mill,' and the order 'dog black' in preference to 'black dog'. It would be worth while to note any similar instances.

In these inventions, again, we may detect a close resemblance between children's language and that of savages. In presence of a new object a savage behaves very much as a child, he shapes a new name out of familiar ones, a name that commonly has much of the metaphorical character. Thus the Aztecs called a boat a 'water-house'; and the Vancouver islanders when they saw a screw-steamer called it the 'kick-kicker'.[1]

A somewhat different class of word-inventions is that in which a child frames a new word on the analogy of known words. A common case is the invention of new substantives from verbs after the pattern of other substantives. The results are often quaint enough. Sometimes it is the agent who is named by the new word, as when the boy C. talked of the 'Rainer,' the fairy who makes rain, or when another little boy dubbed a teacher the 'lessoner'. Sometimes it is the product of the action

[1] Tylor, *Anthropology*, chap. v

that is named, as when the same child C. and the deaf-mute Laura Bridgman both invented the form 'thinks' for 'thoughts'. In much the same way a boy of three called the holes which he dug in his garden his 'digs'. The reverse process, the formation of a verb from a substantive, also occurs. Thus one child invented the form 'dag' for striking with a dagger; and Preyer's boy when two years and two months old formed the verb 'messen' to express cut from the substantive 'messer' (a knife). It was probably a similar process when the child M. at one year ten months, after seeing a motionless worm and being told that it was dead, asked to see another worm 'deading'. The same child coined the neat verb-form 'unparcel'. This readiness to form verbs from substantives and *vice versâ*, which is abundantly illustrated in the development of language, is without doubt connected with the primitive and natural mode of thinking. The object is of greatest interest both to the child and to primitive man as an agent, or as the last stage or result of an action.

In certain of these original formations we may detect a fine feeling for verbal analogy. Thus a French boy, after killing the 'limaces' (snails) which were eating the plants in the garden, dignified his office by styling himself a 'limacier'; where the inventive faculty was no doubt led by the analogy of 'voiturier' formed from 'voiture'.[1]

In other verbal formations it is difficult to determine the model which is followed. Signorina Lombroso gives a good example. A little girl of two and a half years had observed that when her mother allowed her to take, eat, or drink something, she would say 'prendilo' (take it), 'bevilo' (drink it), or 'mangialo' (eat it). She proceeded to make a kind of adjective or substantive out of each of these, asking 'é prendilo?' 'é bevilo?' 'é mangialo?' *i.e.*, 'Is it takable or a case of taking?' etc., when

[1] Compayré, *op. cit.*, p. 249, where other examples are given.

she wanted to take, drink, or eat something.[1] By such skilful artifices does the little word-builder find his way to the names which he has need of.

In certain cases these original constructions are of a more clumsy order and due to a partial forgetfulness of a word and an effort to complete it. Thus a boy of four spoke of being 'sorrified,' where he was evidently led out of the right track by the analogy of 'horrified'. The same little boy who talked of his 'digs' used the word 'magnicious' for 'magnificent'. This is a choice example of word-transformation. No doubt the child was led by the feeling for the sound of this termination in other grand words, as 'ambitious'. Possible, too, he might have heard the form 'magnesia' and been influenced by a reminiscence of this sound-complex. The talk of 'Jeames' with which Mr. Punch makes us acquainted is full of just such delightful missings of the mark in trying to reproduce big words.

Sentence-building.

We may now follow the child in his later and more ambitious linguistic efforts. The transition to this higher plane is marked by the use of the completed form of thought, the sentence.

At first, as already pointed out, there is no sentence-structure. The child begins to talk by using single words. These words consist of what we call substantives, as 'Mamma,' 'nurse,' 'milk,' a few adjectives, as 'hot,' 'nice,' 'good,' a still smaller number of adverbial signs, as 'ta-ta,' or 'away,' 'over,' 'down,' 'up,' and one or two verb-forms, apparently imperatives, as 'go'. The exact order in which these appear, and the proportion between the different classes of constituents at a particular age, say two and a half or three, appear to vary greatly. Words

[1] *Op. cit.*, p. 12.

descriptive of actions, though very few at first, appear to grow numerous in a later stage.[1]

In speaking of these words as substantives, adjectives, and so forth, I am merely adopting a convenient mode of description. We must not suppose that the words as used in this simple disjointed talk have their full grammatical value. It is not generally recognised that the single-worded utterance of the child is an abbreviated sentence or 'sentence-word' analogous to the sentence-words found in the simplest known stage of adult language. As with the race so with the child, the sentence precedes the word. Moreover, each of the child's so-called words in his single-worded talk stands for a considerable variety of sentence-forms. Thus the words in the child's vocabulary which we call substantives do duty for verbs and so forth. As Preyer remarks, 'chair' (stuhl) means 'There is no chair,' 'I want to be put in the chair,' 'The chair is broken,' and so forth. In like manner 'dow' (down) may mean 'The spoon has fallen down,' 'I am down,' 'I want to go down,' etc.[2] The particular shade of meaning intended is indicated by intonation and gesture.

This sentence-construction begins with a certain timidity. The age at which it is first observed varies greatly. It seems in most cases to be somewhere about the twenty-first month, yet I find good observers among my correspondents giving as dates eighteen and a half and nineteen months; and a friend of mine, a Professor of Literature, tells me that his boy formed simple sentences as early as fifteen months. We commonly have at first quite short sentences formed by two words in apposition. These may consist of what we should call an adjective added to and qualifying a substantive, as in the simple utterance of the child C., 'Big bir' (bird), or the exclamation, 'Papa no' (Papa's nose); or they

[1] For lists of vocabularies and an analysis of their composition see Preyer, *op. cit.* (4th ed.), p. 372 ff.; Tracy, *Psychology of Childhood*, p. 76 ff.

[2] See Preyer, *op. cit.*, p. 361: Romanes, *op. cit.*, p. 296 ff.

may arise by a combination of substantives, as in the sentence given by Tracy, 'Papa cacker,' *i.e.*, 'Papa has crackers,' and one quoted by Preyer, 'Auntie cake' (German, 'Danna Kuha,' *i.e.*, 'Tante Kuchen') for 'Auntie has given me cake'; and in a somewhat different example of a compound sentence also given by Preyer, 'Home milk' (German, 'Haim Mimi'), interpreted as 'I want to go home and have milk'. In the case of one child about the age of twenty-three months most of the sentences were composed of two words, one of which was a verb in the imperative. The love of commanding, so strong in the child, makes the use of the imperative, as is seen in this case, very common. M.'s first performance in sentence-building (at eighteen and a half months) was, 'Mamma, tie,' *i.e.*, 'tie gloves'.

Little by little the learner manages longer sentences, economising his resources to the utmost, troubling nothing about inflections or the insertion of prepositions so as to indicate precise relations, but leaving his hearer to discover his meaning as best he may; and it is truly wonderful how much the child manages to express in this rude fashion. A boy nineteen and a half months old gave this elaborate order to his father: 'Dada toe toe ba,' that is, 'Dada is to go and put his toes in the bath'. Pollock's little girl in the first essay at sentence-building, recorded at the age of twenty-one and a half months, actually managed a neat antithesis: 'Cabs dati, clam clin,' that is to say, 'Cabs are dirty, and the perambulator is clean'. Preyer's boy in the beginning of the third year brought out the following, 'Mimi atta teppa papa oi,' that is to say, 'Milch atta Teppich Papa fui,' which appears to have signified, "The milk is gone, it is on the carpet, and papa said 'Fie'". It may be added that the difficulties of deciphering these early sentences are aggravated by the frequent resort to slurs, as when a child says, 'm' out' for 'take me out,' 't on' for 'put it on'.

The order of words in these first tentative sentences is noticeable. Sometimes the subject is placed after the predicate, as in an example given by Pollock, 'Run away man,' *i.e.*, 'The man runs (or has run) away,' and in the still quainter example given by the same writer, 'Out-pull-baby 'pecs (spectacles),' *i.e.*, 'Baby pulls or will pull out the spectacles'. In like manner the adjective used as predicate may precede the subject, as in the examples given by Maillet, 'Jolie la fleur,' etc.[1] Sometimes, again, the object comes before the verb, as apparently in the following example given by Miss Shinn: a little girl delighted at the prospect of going out to see the moon exclaimed, "Moo! ky! (sky) baby! shee! (see)".[2] Here is a delightful example of a transposition of subject and object. A boy two years and three months asked, 'Did Ack (Alec) chocke an apple?' *i.e.*, 'Did an apple choke Alec?' though in this case we very probably have to do with a misunderstanding of the action choke. Other kinds of inversion occur when more complex experiments are attempted, as in connecting 'my' with an adjective. Thus one child said prettily, 'Poor my hands';[3] which archaic form may be compared with the following Gallic-looking idiom used by M. at the age of one year ten months: 'How Babba (baby, *i.e.*, herself) does feed nicely!' The same little girl put the auxiliary out of its place, saying, 'Tan (can) Babba wite' for 'Baby can write,' though this was probably a reminiscence of the question-form.

These inversions of our familiar order are suggestive. They have some resemblance to the curious order which appears in the spontaneous sign-making of deaf-mutes. Thus a deaf-mute answered the question, 'Who made God?'

[1] See Compayré, *op. cit.*, p. 206.

[2] *Notes on the Development of a Child*, p. 84.

[3] Canton, *The Invisible Playmate*, p. 32, who adds that this exactly answers to the form, "Good my lord!"

by saying, "God made nothing," *i.e.*, "nothing made God". Similarly the deaf-mute Laura Bridgman expressed the petition, 'Give Laura bread,' by the form, 'Laura bread give'.[1] Such inversions, as we know, are allowable and common in certain languages, *e.g.*, Latin. The study of the syntax of child-language and of the sign-making of deaf-mutes might suggest that our English order is not in certain cases the most natural one.

A somewhat similar inversion of what seems to us the proper order appears in the child's first attempts at negation. The child C. early in his third year expressed the idea that he was not going into the sea thus: 'N. (his own name) go in water, no'. Similarly Pollock's child expressed acquiescence in a prohibition in this manner, 'Baby have papa (pepper) no,' where the 'no' followed without a pause. The same order appears in the case of French children, *e.g.*, 'Papa non,' *i.e.*, 'It is not Papa,' and seems to be a common, if not a universal form of the first half-spontaneous sentence-building. Here again we see an analogy to the syntax of deaf-mutes, who appear to append the sign of negation in a similar way, *e.g.*, 'Teacher I beat, deceive, scold no,' *i.e.*, 'I must not beat, deceive, scold my teacher'. We see something like it, too, in the formations of savage-languages, as when 'fool no' comes to be the sign of 'not fool,' that is of wise.[2] When 'not' comes into use it is apt to be put in a wrong place, as when the little girl M. said, 'No Babba look' (*i.e.*, 'Babba will not look'), and 'Mr. Dill not did tum' for 'Mr. Gill did not come'.[3]

Another closely related characteristic of this early childish sentence-building is the love of antithesis under the

[1] See Romanes, *op. cit.*, p. 116 f., where other examples may be found.

[2] *Annual Report of the Bureau of Ethnology*, 1879-80, p. 391 ff.

[3] It may be added that this child regularly used 'not' or 'n't' as a negating or cancelling sign for the whole sentence, saying, for example, 'Babba mus'n't go in,' for 'Babba may stay out'.

form of two balancing statements. Thus a child will often oppose an affirmative to a negative statement as a means of bringing out the full meaning of the former. The boy C., for example, would say, 'This a nice bow-wow, not nasty bow-wow'. The little girl M. said, 'Boo (the name of her cat) dot (got) tail; poor Babba dot no tail,' proceeding to search for a tail under her skirts. This use of a negative statement by way of contrast or opposition to an affirmative grew in the case of one child aged two years and two months into a habit of description by negations. Thus an orange was described by the saying, 'No, 'tisn't apple,' porridge by 'No, 'tisn't bread and milk'. It is interesting to note that deaf-mutes proceed in a similar fashion by way of antithetic negative statement. Thus one of these expressed the thought, 'I must love and honour my teacher,' by the order, 'Teacher I beat, deceive, scold no!—I love honour yes!'[1]

These first essays in the construction of sentences illustrate the skill of the child in eking out his scanty vocabulary by help of a metaphorical transference of meaning. Taine gives a charming example of this device. A little girl of eighteen months had acquired the word 'Coucou' as used by her mother or nurse when playfully hiding behind a door or chair, and the expression 'ça brûle' as employed to warn her that her dinner was too hot, or that she must put on her hat in the garden to keep off the hot sun. One day on seeing the sun disappear behind a hill she exclaimed, 'A bûle coucou'.[2]

It is a fearful moment when the child first tries his hand at inflections, and, more especially in our language, those of verbs. Pollock's child made the attempt, and successfully, at the age of twenty-two months. Such first essays

[1] A curious example of negative antithesis is given by Perez, *op. cit.*, p. 196. On other analogies between the syntax of children and of deaf-mutes, see Compayré, *op. cit.*, p. 251 f.

[2] *On Intelligence*, pt. i., bk. i., chap. ii., sect. vi.

are probably examples of pure imitation, the precise forms used having been previously heard from others. Hence while they show a growing power of thought, of a differencing of the relations of number and time, they do not involve verbal construction properly so called. This last appears as soon as the child carries over his knowledge of particular cases of verbal inflection and applies it to new words. This involves a nascent appreciation of the reason or rule according to which words are modified. The development of this feeling for the general mode of verbal change underlies all the later advance in correct speaking.

While the little explorer in the *terra incognita* of language can proceed safely in this direction up to a certain point he is apt, as we all know, to stumble now and again; nor is this to be wondered at when we remember the intricacies, the irregularities, which characterise a language like ours. In trying, for example, to manage the preterite of an English verb he is certain, as, indeed, is the foreigner, to go wrong. The direction of the error is often in the transformation of the weak to the strong form; as when 'screamed' becomes 'scram,' 'split' (preterite) 'splat' or 'splut,' and so forth. In other cases the child will convert a strong into a weak form, as when Laura Bridgman, like many another child, would say, 'I eated,' 'I seed,' and so forth.[1] Sometimes, again, delightful doublings of the past tense occur, as 'sawed' for 'saw,' 'eatened' for 'eaten,' 'didn't saw' for 'didn't see,' 'did you gave me?' for 'did you give me?' Active and passive forms are sometimes confused, as when M. said 'not yike being picking up' for 'not like being picked up,' etc. It is curious to note the different lines of imitative construction followed out in these cases.

One thing seems clear here: the child's instinct is to

[1] The same double tendency from weak to strong forms and *vice versâ* is seen in the list of transformed past participles given by Preyer, *op. cit.*, p. 360.

simplify our forms, to get rid of irregularities. This is strikingly illustrated in the use of the heterogeneous assemblage of forms known as the verb 'to be'. It is really hard on a child to expect him to answer the question, 'Are you good now?' by saying, 'Yes, I am'. He says, of course, 'Yes, I are'. Perhaps the poor verb 'to be' has suffered every kind of violence at the hands of children.[1] Thus the child M. used the form 'bēd' for 'was'. Professor Max Müller somewhere says that children are the purifiers of language. Would it not be well if they could become its simplifiers also, and give us in place of this congeries of unrelated sounds one good decent verb-form?

Other quaint transformations occur when the child begins to combine words, as when M. joining adverb to verb invented the form of past tense 'fall downed' for 'fell down'. Another queer form is 'Am't I?' used for 'am I not?' after the pattern of 'aren't we?' An even finer linguistic stroke than this, is 'Bettern't you?' for 'Had you not better?' where the child was evidently trying to get in the form 'hadn't you,' along with the awkward 'better,' which seemed to belong to the 'had,' and solved the problem by treating 'better' as the verb, and dropping 'had' altogether.

A study of these solecisms, which are nearly always amusing, and sometimes daintily pretty, is useful to mothers and young teachers by way of showing how much hard work, how much of real conjectural inference, enters into children's essays in talking. We ought not to wonder that they now and again slip; rather ought we to wonder that, with all the intricacies and pitfalls of our language —this applies of course with especial force to the motley irregular English tongue—they slip so rarely. As a matter of fact, the latter and more 'correct' talk—which is correct

[1] *Cf.* Preyer's account of a German child's liberties with the same verb, where we find 'gebist,' 'binst,' and other odd forms, *op. cit.*, p. 438.

just because the child has stored up a good stock of particular word-forms, and consequently has a much wider range of pure uninventive imitation—is less admirable than the early inventive imitation ; for this last not only has the quality of originality, but shows the germ of a truly grammatical feeling for the general types or norms of the language.

The English child is not much troubled by inflections of substantives. The pronouns, however, as intelligent mothers know, are apt to cause much heart-burning to the little linguist. The mastery of 'I' and 'you,' 'me,' mine,' etc., forms an epoch in the development of the linguistic faculty and of the power of thought which is so closely correlated with this. Hence it will repay a brief inspection.

As is well known, children begin by speaking of themselves and of those whom they address by names, as when they say, 'Baby good,' 'Mamma come'. This is sometimes described as speaking "in the third person," yet this is not quite accurate, seeing that there is as yet no distinction of person at all in the child's language.

The first use of 'I' and 'you' between two and three years is apt to be erroneous. The child proceeds imitatively to use 'I,' 'me,' 'my' for 'you' and 'your'. Thus one child said, 'What I'm going to do,' for, 'What are you going to do?' In this case, it is plain, there is no clear grasp of what we mean by subject, or of the exact relation of this subject to the person he is addressing.

Yet along with this mechanical repetition of the pronominal forms we see the beginnings of an intelligent use of them. So far as I can ascertain most children begin to say 'me' or 'my' before they say 'you'. Yet I have met with one or two apparent exceptions to this rule. Thus the boy C. certainly seemed to get hold of the form of the second person before that

of the first, and the priority of 'you' is attested in another case sent to me. It is desirable to get more observations on this point.

To determine the exact date at which an intelligent use of the first person appears, is much less easy than it looks. The 'I' is apt to appear momentarily and then disappear, as when M. at the age of nineteen months three weeks was observed to say 'I did' once, though she did not use 'I' again until some time afterwards. Allowing for these difficulties it may be said with some degree of confidence that the great transition from 'baby' to 'I' is wont to take place in favourable cases early in the first half of the third year. Thus among the dates assigned by different observers I find, twenty-four months, twenty-five months (cases given by Preyer), between twenty-five and twenty-six (Pollock), twenty-seven months (the boy C.). A lady friend tells me that her boy began to use 'I' at twenty-four months. In the case of a certain number of precocious children this point is attained at an earlier date. Thus Preyer quotes a case of a child speaking in the first person at twenty months. Schultze gives a case at nineteen months. A friend of mine, a Professor of English Literature, whose boy showed great precocity in sentence-building, reports that he used the forms 'me' and 'I' within the sixteenth month. Preyer's boy, on the other hand, who was evidently somewhat slow in lingual development, first used the form of the first person 'to me' (mir) at the age of twenty-nine months.

The precise way in which these pronominal forms first appear is very curious. Many children use 'me' before 'I'. Preyer's boy appears to have first used the form 'to me' (mir). 'My' too is apt to appear among the earliest forms. In such different ways does the child pass to the new and difficult region of pronominal speech.

The meaning of this transition has given rise to much discussion. It is plain, to begin with, that a child cannot

acquire these forms as he acquires the name 'papa,' 'nurse,' by a direct and comparatively mechanical mode of imitation. When he does imitate in this fashion he produces, as we have seen, the absurdity of speaking of himself as 'you'. Hence during the first year or so of speech he makes no use of these forms. He speaks of himself as 'baby' or some equivalent name, others coming down to his level and setting him the example.

The transition seems to be due in part, as I have elsewhere pointed out, to a growing self-consciousness, to a clearer singling out of the *ego* or self as the centre of thought and activity, and the understanding of the other 'persons' in relation to this centre. Not that self-consciousness *begins* with the use of 'I'. The child has no doubt a rudimentary self-consciousness when he talks about himself as about another object: yet the use of the forms 'I,' 'me,' may be taken to mark the greater precision of the idea of 'self' as not merely a bodily object and nameable just like other sensible things, but as something distinct from and opposed to all objects of sense, as what we call the 'subject' or *ego*.

While, however, we may set down this exchange of the proper name for the forms 'I' and 'me' as due to the spontaneous growth of the child's intelligence, it is possible that education exerts its influence too. It is conjecturable that as a child's intelligence grows, others in speaking to him tend unknowingly to introduce the forms 'I' and 'you' more frequently. Yet I am disposed to think that the child commonly takes the lead here. However this be, it is clear that growing intelligence, involving greater interest in others' words, will lead to a closer attention to these pronominal forms as employed by others. In this way the environment works on the growing mind of the child, stimulating it to direct its thoughts to these subtle relations of the 'me and not me,' 'mine and thine'. The more intelligent the environment the greater will be the

stimulating influence: hence, in part at least, the difference of age when the new style of speech is attained.[1]

The acquirement of these pronominal forms is a slow and irksome business. At first they are introduced hesitatingly, and alongside of the proper name; the child, for example, saying sometimes, 'Baby' or 'Ilda,' sometimes 'I' or 'me'. In some cases, again, the two forms are used at the same time in apposition, as in the delightful form not unknown in older folk's language, 'Hilda, my book'. The forms 'I' and 'me' are, moreover, confined at first to a few expressions, as 'I am,' 'I went,' and so forth. The dropping of the old forms, as may be seen by a glance at the notes on the child C., and at Preyer's methodical diary, is a gradual process.

Quaint solecisms mark the first stages of the use of these pronouns. As in the case of the earlier use of substantives, one and the same form will be used economically for a variety of meanings, as when 'me' was by the boy C. used to do duty for 'mine' also, and 'us' for 'ours'. Here it is probable there is a lack of perfect discrimination. The connexion between the self and its belongings is for all of us of the closest. When a child of two, who was about to be deprived of her doll, shouted, 'Me, me!' may we not suppose that the doll was taken up into the inner circle of the self?[2] Sometimes in this enrichment of the vocabulary by pronouns new and delightful forms are struck off, as when the little experimenter invents the possessive form 'she's'.

The perfect unfettered use of these puzzling forms comes much later. Preyer quotes a case in which a child

[1] Preyer (*op. cit.*, Cap. 22) seems to argue that children have a clear self-consciousness before they attempt to use the forms 'I,' etc.; and that the acquisition of the latter is due to imitation. But he does not show why this imitation should begin to work so powerfully at a particular period of linguistic development.

[2] Compare above, p. 43.

Olga, aged four years, would say, 'She has made me wet,' meaning that she herself had done it. But this perhaps points to that tendency to split up the self into a number of personalities, to which reference was made in an earlier essay.

The third year, which witnesses the important addition of the pronouns, sees other refinements introduced. Thus the definite article was introduced in the case of Preyer's boy in the twenty-eighth month, in that of an English boy at the age of two years eight months. Prepositions are introduced about the same time. In this way childish talk begins to lose its primitive disjointed character, and to grow into an articulated structure.[1] Yet the perfect mastery of these takes time. A feeling for analogy easily leads the little explorer astray at first, as when the child M. said 'far to' after the model 'near to'.

Through this whole period of language-learning the child continues to show his originality, his inventiveness. He is rarely at a loss, and though the gaps in his verbal acquisitions are great he is very skilful in filling them up. If, for example, our bright little linguist M., at the age of one year eight and a half months, after being jumped by her father, wants him to jump her mother also, she says, in default of the word 'jump,' "Make mamma high". A boy of twenty-seven months ingeniously said, 'It rains off,' for 'The rain has left off'. Forms are sometimes combined, as when a boy of three years three months used 'my lone,' 'your lone,' for 'me alone' or 'by myself,' 'you alone' or 'by yourself'. Another girl, two years ten months, said, 'No two 'tatoes left,' meaning 'only one potato is left'. Pleonasms occur in abundance, as when a boy of two would say, 'Another one bicca (biscuit),' and, better still, 'another more'.

[1] For a fuller account of this progress, the reader cannot do better than consult Preyer, *op. cit.*, Cap. 20 and 21.

Getting at our Meanings.

There is one part of this child's work of learning our language of which I have said hardly anything, *viz.*, the divining of the verbal content, of the meaning we put or try to put into our words. A brief reference to this may well bring this study of childish linguistics to a close.

The least attention to a child in the act of language-learning will show how much of downright hard work goes to the understanding of language. If we are to judge by the effort required we might say that the child does as much in deciphering his mother-tongue as an Oriental scholar in deciphering a system of hieroglyphics. Just think, for example, how many careful comparisons the small child-brain has to carry out, comparisons of the several uses of the word by others in varying circumstances, before he can get anything approaching to a clear idea, answering even to such seemingly simple words as 'clean,' 'old' or 'clever'. The way in which inquiring children plague us with questions of the form, 'What does such and such a word mean?' sufficiently shows how much thought-activity goes in the trying to get at meanings. This difficulty, moreover, persists, reappearing in new forms as the child pushes his way onwards into the more tangled tracts of the lingual terrain. It is felt, and felt keenly, too, when most of the torments of articulation are over and forgotten. Many of us can remember how certain words haunted us as uncanny forms into the nature of which we tried hard, but in vain, to penetrate.

Owing to these difficulties the little learner is always drifting into misunderstanding of words. Such misapprehensions will arise in a passive way by the mere play of association in attaching the word especially to some striking feature or circumstance which is apt to present itself when the word is used in the child's hearing. In this way, for example, general terms may become terribly restricted in range by the incorporation of accidentals into their meaning, as

when a Sunday school scholar rendered the story of the good Samaritan by saying that a gentleman came by and poured some paraffin (*i.e.*, oil) over the poor man. A word may have its meaning funnily transformed by such associative suggestions, as when a little girl, being told that a thing was a secret, remarked, 'Well, mamma, 'ou (you) can whisper it in my ear'. As this example shows, a child in his 'concreting' fashion tries to get sensible realities out of our names. A mask was called by a boy of six a 'grimace,' this abstract name standing to his mind for the grinning face. A like tendency shows itself in the following quaint story. A boy and a girl, twins, had been dressed alike. Later on the boy was put into a 'suit'. A lady asked the girl about this time whether they were not the twins, when she replied: 'No, we *used* to be'. 'Twin' was inseparably associated in her mind with the similarity in dress. A somewhat similar effect of association of ideas is seen in the quaint request of the little girl M. that her mamma should 'smell' the pudding and make it cool. The action of bringing the face near an object yet so as not to touch it was associated with smelling, as in the little girl who, according to Mr. Punch, had her sense of propriety shocked by some irreverent person who did not "smell his hat" when he took his seat in church. Moral expressions get misunderstood in much the same manner. A little girl of three and a half years, pretending that her mother was her little girl, said: 'You mustn't do anything *on purpose*'. The usual verbal context of this highly-respectable phrase (*e.g.*, 'You did it on purpose') had in the child's mind given it a naughty meaning.

With these losings of the verbal road through associative by-paths may be taken the host of misapprehensions into which children are apt to fall through the ambiguities of our words and expressions, and our short and elliptical modes of speaking. Thus an American child, noting that children were 'half price' at a certain show, wanted his

mother to get a baby now that they were cheap.[1] With this may be compared the following: Jean Ingelow tells us she can well remember how sad she was made by her father telling her one day after dancing her on his knee that he must put her down as he 'had a bone in his leg'.[2] Much misapprehension arises, too, from our figurative use of language, which the little listener is apt to interpret in a very literal way. It would be worth knowing what odd renderings the child-brain has given to such expressions as 'an upright man,' 'a fish out of water,' and the like.

In addition to these comparatively passive misapprehensions there are others which are the outcome of an intellectual effort, the endeavour to penetrate into the mystery of some new and puzzling words or expression. Many of us have had our special horror, our *bête noire* among words, which tormented us for months and years. I remember how I was plagued by the word 'wean,' the explanation of which was very properly, no doubt, denied me by the authorities, and by what quaint fancies I tried to fill in a meaning.

As with words, so with whole expressions and sayings. It was a natural movement of childish thought when a little school-girl answered the question of the Inspector, 'What is an average?' by saying 'What the hen lays eggs on'. She had heard her mother say, "The hen lays so many eggs 'on the average' every week," and had no doubt imagined a little myth about this 'average'. Again, most of us know what queer renderings the child-mind has given to Scripture language. Mr. James Payn tells us that he knew a boy who for years substituted for the words, 'Hallowed be thy name,' 'Harold be thy name'.[3] In this and similar cases it is not, as might be supposed, defective hearing—children hear words as a rule with great exactness—it is the impulse

[1] Worcester Collection, p. 21.

[2] *Cf.* the account Goltz gives of the anxiety he felt as a child on hearing that his uvula (zapfen) had 'fallen down,' *op. cit.*, p. 261.

[3] In the *Illustrated London News*, 30th June, 1894.

to give a familiar and significant rendering to what is strange and meaningless.[1] A friend of mine when a boy was accustomed on hearing the passage, 'If I say peradventure the darkness shall cover me,' etc., to insert a pause after 'peradventure,' apprehending the passage in this wise: "If I say 'Peradventure!'—the darkness," etc. In this way he turned the mysterious 'peradventure' into a mystic 'open sesame,' and added a thrilling touch of magic to the passage. My friend's daughter tells me that on hearing the passage, "I . . . visit the sins of the fathers upon the children unto the third and fourth generation, . . . and show mercy unto thousands," she construed the strange word 'generation' to mean an immense number like 'billion,' and was thus led to trouble herself about God's seeming to be more cruel than kind.[2]

In some cases, too, where the language is simple enough a child's brain will find our meaning unsuitable and follow a line of interpretation of its own. Mr. Canton relates that his little heroine, who knew the lines in *Struwwelpeter*—

> The doctor came and shook his head,
> And gave him nasty physic too—

was told that she would catch a cold, and that she at once replied, "And will the doctor come and shook my head?"[3] It was so much more natural to suppose that when the doctor came and did something this was carried out on the person of the patient.

There is nothing more instructive in this connexion than the talk of children among themselves about words. They build up quaint speculations about meanings, and try their hand bravely at definitions. Here is an example:

[1] Of course defective auditory apprehension may assist in these cases. Goltz gives an example from his own childhood. He took the words "Namen nennen Dich nicht" to be "Namen nenne Dich nicht," and was sorely puzzled at the idea of bidding a name not to name itself.

[2] Psalm cxxxix. and Second Commandment, Prayer-book version.

[3] *The Invisible Playmate*, p. 35.

A boy of five was instructing his comrade as to the puzzling word 'home-sick'. He did it in quite a scientific fashion. "It's like sea-sick, you know: you are sea-sick when you are sick at sea, and so you're home-sick when you're sick at home".

There is something of this same desire to get behind words in children's word-play, as we call it, their discovery of odd affinities in verbal sounds, and their punning. Though no doubt this contains a genuine element of childish fun, it betokens a more serious trait also, an interest in word-sounds as such, and a curiosity about their origin and purpose. It is difficult for grown-up people to go back in thought to the attitude of the child-mind towards verbal sounds. Just as children show 'the innocence of the eye' in seeing the colours of objects as they are and not as our habits of interpretation tend to make them, so they show an innocence of the ear, catching the intrinsic sensuous qualities of a word or a group of words, in a way which has become impossible for us.

This half-playful, half-serious scrutiny of word-sounds leads to the attempt to find by analysis and analogy a familiar meaning in strange words. For example, a little boy about four years old heard his mother speak of nurse's neuralgia, from which she had been suffering for some time. He thereupon exclaimed, 'I don't think it's *new* ralgia, I call it *old* ralgia'. A child called his doll Shakespeare' because its spear-like legs could be shaken. Another boy of three explained 'gaiters' as things 'to go out of the gate with'. Another said that the 'Master' which he prefixed to his name meant that he was master of his dog. A little girl in her third year called 'anchovies' 'ham-chovies, 'mermaid' 'worm-maid,' 'whirlwind' 'world-wind,' 'gnomes' 'no-mans' (un-menschen), taking pleasure apparently in bringing some familiar element—even when this seems to other ears at least not very explanatory—into the strange jumble of word-sound that surrounded her. A child

may know that he is 'fooling' in such cases, yet the word-play brings a certain satisfaction, which is at least akin to the pleasure of the older linguist.

This quasi-punning transformation of words is curiously like what may be called folk-etymology, where a foreign word is altered by a people so as to be made to appear significant and suitable for its purpose, as in the oft-quoted forms 'sparrow grass' (asparagus) and 'cray-fish' (from the French écrevisse, *cf.* the O. H. German Krebiz), where the attempt to suit the form to the thing is still more apparent.[1] When, for example, a boy calls a holiday a 'hollerday,' because it is a day 'to holloa in,' we may say that he is reflecting the process by which adults try to put meaning into strange words, as when a cabman I overheard a few days ago spoke about putting down *ash*phalt (for 'asphalt'). Some children carry out such transformation and invention of derivation on a large scale, often resorting to pretty myths, as when the butterflies are said to make butter, or to eat butter, grasshoppers to give grass, honeysuckles to yield all the honey, and so forth.[2]

A child will even go further, and, prying into the forms of gender, invent explanatory myths in which words are personified and sexualised. Thus a little boy of five years and three months who had learned German and Italian as well as English was much troubled about the gender of the sun and moon. So he set about myth-making on this wise: "I suppose people[3] think the sun is the husband, the moon is the wife, and all the stars the little children, and Jupiter the maid". A German girl of six was thus addressed by her teacher: "'Der' ist männlich; Was sind 'Die' und 'Das'?" To which she replied prettily: "Die ist

[1] The other form of the word, 'craw-fish,' seems a still more ingenious example of folk-etymology.

[2] These last are taken from a good list of children's punnings in Dr. Stanley Hall's article, "The Contents of Children's Minds".

[3] That is, I take it, the majority, *viz.*, Italians and English.

dämlich (*i.e.*, 'ladyish') und das ist kindlich". The tendency to attribute differences of sex and age to names observable in this last is seen in other ways. An Italian child asked why 'barba' (beard) was not called 'barbo'. With this may be compared the pretty myth of another Italian child that 'barca' (boat) was the little girl of 'barcaiuolo' (boatman).[1]

One other characteristic feature in the child's attitude towards words must be touched on, because it looks like the opposite of the impulse to tamper with words just dealt with. A child is a great stickler for accuracy in the repetition of all familiar word-forms. The zeal of a child in correcting others' language, and the comical errors he will now and again fall into in exercising his pedagogic function, are well known to parents. Sometimes he shows himself the most absurd of pedants. 'Shall I read to you out of this book, baby?' asked a mother of her boy, about two and a half years old. 'No,' replied the infant, 'not *out* of dot book, but somepy inside of it.' The same little stickler for verbal accuracy, when his nurse asked him, 'Are you going to build your bricks, baby?' replied solemnly, 'We don't build bricks, we make them and then build *with* them'. In the notes on the boy C. we find an example of how jealously the child-mind insists on the *ipsissima verba* in the recounting of his familiar stories.

Are these little sticklers for verbal correctness, who object to everything figurative in our language, who, when they learn that a person or an animal has 'lost his head,' take the expression literally, and who love nothing better than tying us down to literal exactness, themselves given to 'word-play' and verbal myth-making, or have we here to do with two varieties of childish mind? My observations do not enable me to pronounce on this point.

I have in this chapter confined myself to some of the more common and elementary features of the child's

[1] Both of these are given by Paola Lombroso in the work already quoted.

linguistic experience. Others present themselves when the reading stage is reached, and the new strange stupid-looking word-symbol on the printed page has to do duty for the living sound, which for the child, as we have seen, seems to belong to the object and to share in its life. But this subject, tempting as it is, must be left. And the same must be said of those special difficulties and problems which arise for the child-mind when two or more languages are spoken. This is a branch of child-linguistics which, so far as I know, has never been explored.

VI.

SUBJECT TO FEAR.

Children's Sensibility.

In passing from a study of children's ideas to an investigation of their feelings, we seem to encounter quite another kind of problem. A child has the germs of ideas long before he can give them clear articulate expression; and, as we have seen, he has at first to tax his ingenuity in order to convey by intelligible signs the thoughts which arise in his mind. For the manifestation of his feelings of pleasure and pain, on the other hand, nature has endowed him with adequate expression. The states of infantile discontent and content, misery and gladness, pronounce themselves with a clearness and an emphasis which leave no room for misunderstanding.

This full frank manifestation of feeling holds good more especially of those states of bodily comfort and discomfort which make up the first rude experiences of life. It is necessary for the child's preservation that he should be able to announce by clear signals the oncoming of his cravings and of his sufferings, and we all know how well nature has provided for this necessity. Hence the fulness with which infant psychology has dealt with this first chapter of the life of feeling. Preyer, for example, gives a full and almost exhaustive epitome of the various shades of infantile pleasure and pain which grow out of this life of sense and appetite, and has carefully described their physiological accompaniments and their signatures.[1]

[1] *Op. cit.*, Cap. 6 and 13.

When we pass from these elementary forms of pleasure and pain to the rudiments of emotion proper, as the miseries of fear, the sorrows and joys of the affections, we have still, no doubt, to do with a mode of manifestation which, on the whole, is direct and unreserved to a gratifying extent. A child of three is delightfully incapable of the skilful repressions, and the yet more skilful simulations of emotion which are easy to the adult.[1] Yet frank and transparent as is the first instinctive utterance of feeling, it is apt to get checked at an early date, giving place to a certain reserve. So that, as we know from published reminiscences of childhood, a child of six will have learnt to hide some of his deepest feelings from unsympathetic eyes.

This shyness of the young heart, face to face with old and strange ways of feeling, exposed to ridicule if not to something worse, makes the problem of registering the pulsations of its emotions more difficult than it at first seems. As a matter of fact we are still far from knowing the precise range and depth of children's feelings. This is seen plainly enough in the quite opposite views which are entertained of childish sensibility, some describing it as restricted and obtuse, others as morbidly excessive. Such diversity of view may no doubt arise from differences in the fields of observation, since, as we know, children differ hardly less than adults perhaps in breadth and fineness of emotional susceptibility. Yet I think that this contrariety of view points further to the conclusion that we are still far from sounding with finely measuring scientific apparatus the currents of childish emotion.

It seems, then, to be worth while to look further into the matter in the hope of gaining a deeper and fuller insight,

[1] This does not apply to older children. As Tolstoi's book, *Childhood, Boyhood and Youth*, tells us, a boy of twelve may be much given to straining after feelings which he thinks he ought to experience.

and as a step in this direction I propose to inquire into the various forms and the causes of one of the best marked and most characteristic of children's feelings—namely, fear.

That fear is one of the characteristic feelings of the child needs no proving. It seems to belong to these wee, weakly things, brought face to face with a new strange world, to tremble. They are naturally timid, as all that is weak and ignorant in nature is apt to be timid.

I have said that fear is well marked in the child. Yet, though it is true that fully developed fear or terror shows itself by unmistakable signs, there are many cases where it is difficult to say whether the child is the subject of this feeling. Thus it is doubtful whether the tremblings and disturbances of respiration which are said to betray fear in the new-born infant are a full expression of this state.[1] Again, the reflex movement of a start on hearing a sound hardly amounts to the full reaction of fear, though it is akin to it.[2] A child may, further, show a sort of æsthetic dislike for an ugly form or sound, turning away in evident aversion, and yet not be afraid in the full sense. Fear proper betrays itself in the stare, the grave look, and in such movements as turning away and hiding the face against the nurse's or mother's shoulder, and sometimes in covering it with the hands. In severer forms it leads to trembling and to wild shrieking. Changes of colour also occur. It is commonly said that great fear produces paleness; but according to one of my correspondents who has had considerable experience, a child may show the feeling by his face turning scarlet. Fear, if not very intense, leads to voluntary movements, as turning away, putting the object aside, or moving away. In its more violent forms, however, it paralyses the child. It

[1] Perez regards these as signs of fear, and points out that tremulous movements may occur in the fœtus (*L'Education dès le berceau*, p. 94).

[2] For an account of this reflex, see Preyer, *op. cit.*, Cap. 10, 176.

is desirable that parents should carefully observe and describe the first signs of fear in their children.[1]

Startling Effect of Sounds.

It may be well to begin our study of fear by a reference to the effect of startling. As is well known, sudden and loud sounds, as that of a door banging, will give a shock to an infant in the first weeks of life, which though not amounting to fear is its progenitor. A clearer manifestation occurs when a new and unfamiliar sound calls forth the grave look, the trembling lip, and possibly the fit of crying. Darwin gives an excellent example of this. He had, he tells us, been accustomed to make all sorts of sudden noises with his boy, aged four and a half months, which were well received; but one day having introduced a new sound, that of a loud snoring, he found that the child was quite upset, bursting out into a fit of crying.[2]

As this incident suggests, it is not every new sound which is thus disconcerting to the little stranger. Sudden sharp sounds of any kind seem to be especially disliked, as those of a dog's bark. The child M. burst out crying on first hearing the sound of a baby rattle; and she did the same two months later on accidentally ringing a hand bell. Louder and more voluminous sounds, too, are apt to have an alarming effect. The big noise of a factory, of a steamship, of a passing train, are among the sounds assigned by my correspondents as causes of this early startling and upsetting effect. A little girl when taken into the country at the age of nine months, though she liked the animals she saw on the whole, showed fear by seeking shelter against the nurse's shoulder, on hearing the bleating of the sheep. So strong is this effect of suddenness and volume of sound

[1] I know of no good account of the manifestations of childish fear. Mosso's book, *La Peur*, chap. v. and following, will be found most useful here.

[2] *Mind*, vol. ii., p. 288

that even musical sounds often excite some alarm at first. 'He (a boy of four months) cried when he first heard the piano,' writes one lady, and this is but a sample of many observations. A child of five and a half months showed such a horror of a banjo that he would scream if it were played or only touched. Preyer's boy at sixteen months was apparently alarmed when his father, in order to entertain him, produced what seems to us a particularly pure musical tone by rubbing a drinking-glass. He remarks that this same sound had been produced when the child was in his third month without any ill effects.[1]

This last fact suggests that such shrinkings from sound may be developed at a comparatively late date. This idea is supported by other observations. "From about two years four months (writes a mother) to the present time (two years eleven months), he has shown signs of fear of music. At two years five months he liked some singing of rounds, but when a fresh person with a stronger voice than the rest joined, he begged the singer to stop. Presently he tolerated the singing as long as he might stand at the farthest corner of the room." This child was also about the same time afraid of the piano, and of the organ, when played by his mother in a church.

It is worth noting that animals show a similar dread of musical sounds. I took a young cat of about eight weeks in my lap and struck some chords not loudly on the piano. It got up, moved uneasily from side to side, then bolted to a corner of the room and seemed to try to get up the walls. Dogs, too, certainly seem to be put out, if not to be terrified, by the music of a brass band.

It is sometimes supposed that this startling effect of loud sounds is wholly an affair of nervous disturbance:[2] but the late development of the repugnance in certain

[1] *Op. cit.*, p. 131.

[2] This seems to be the view of Perez: *The First Three Years of Childhood* (English translation), p. 64.

cases seems to show that this is not the only cause at work. Of course a child's nervous organisation may through ill health become more sensitive to this disturbing effect; and, as the life of Chopin tells us, the delicate organisation of a future musician may be specially subject to these shocks. Yet I suspect that vague alarm at the unexpected and unknown takes part here. There is something uncanny to the child in the very production of sound from a silent thing. A banjo lying now inert, harmless, and then suddenly firing off a whole gamut of sound may well shock a small child's preconceptions of things. The second time that fear was observed in one child at the age of ten months, it was excited by a new toy which squeaked on being pressed.[1] This seems to be another example of the disconcerting effect of the unexpected. In other cases the alarming effect of the mystery is increased by the absence of all visible cause. One little boy of two years used to get sadly frightened at the sound of the water rushing into the cistern which was near his nursery. The child was afraid at the same time of thunder, calling it 'water coming'.

I am far from saying that all children manifest this fear of sounds. Miss Shinn points out that her niece was from the first pleased with the piano, and this is no doubt true of many children. Children behave very differently towards thunder, some being greatly disturbed by it, others being rather delighted. Thus Preyer's boy, who was so ignominiously upset by the tone of the drinking-glass, laughed at the thunderstorm; and we know that the little Walter Scott was once found during a thunderstorm lying on his back in the open air clapping his hands and shouting "Bonnie, bonnie!" at the flashes of lightning. It is possible that in such cases the exhilarating effect of the brightness counteracts the uncanny effect of the thunder. More observations are needed on this point.

[1] Observation of F. H. Champneys, *Mind*, vol. vi., p. 106.

A complete explanation of these early vague alarms of the ear may as yet not be possible. Children show in the matter of sound capricious repugnances which it is exceedingly difficult to account for. They seem sometimes to have their pet aversions like older folk. Yet I think that a general explanation is possible.

To begin with, then, it is probable that in many of these cases, especially those occurring in the first six months, we have to do with an organic phenomenon, with a sort of jar to the nervous system. To understand this we have to remember that the ear, in the case of man at least, is the sense-organ through which the nervous system is most powerfully and profoundly acted on. Sounds seem to go through us, to pierce us, to shake us, to pound and crush us. A child of four or six months has a nervous organisation still weak and unstable, and we should naturally expect loud sounds to produce a disturbing effect on it.

To this it is to be added that sounds have a way of taking us by surprise, of seeming to start out of nothing; and this aspect of them, as I have pointed out above, may well excite vague alarm in the small creatures to whom all that is new and unlooked for is apt to seem uncanny. The fact that most children soon lose their fear by getting used to the sounds seems to show how much the new and the mysterious has to do with the effect.

Whether heredity plays any part here, *e.g.*, in the fear of the dog's barking and other sounds of animals, seems to me exceedingly doubtful. This point will, however, come up for closer consideration presently, when we deal with children's fear of animals.

Before considering the manifold outgoings of fear produced by impressions of the eye, we may glance at another form of early disturbance which has some analogy to the shock-like effects of certain sounds. I refer here to the feeling of bodily insecurity which appears very early when

the child is awkwardly carried, or let down back-foremost, and later when he begins to walk. One child in her fifth month was observed when carried to hold on to the nurse's dress as if for safety. And it has been noticed by more than one observer that on dandling a baby up and down in one's arms, it will on descending, that is when the support of the arms is being withdrawn, show signs of discontent in struggling movements.[1] Bell, Preyer, and others regard this as an instinctive form of fear. Such manifestations may, however, be merely the result of sudden and rude disturbances of the sense of bodily ease which attends the habitual condition of adequate support. A child accustomed to lie in a cradle, on the floor, or on somebody's lap, might be expected to be put out when the supporting mass is greatly reduced, as in bad carrying, or wholly removed, as in quickly lowering him backwards. The fear of falling, which shows itself during the first attempts to stand, comes, it must be remembered, as an accompaniment of a new and highly strange situation. The first experience of using the legs for support must, one supposes, involve a profound change in the child's whole bodily consciousness, a change which may well be accompanied with a sense of disturbance. Not only so, it comes after a considerable experience of partial fallings, as in trying to turn over when lying, half climbing the sides of the cradle, etc., and still harder bumpings when the crawling stage is reached. These would, I suspect, be quite sufficient to produce the timidity which is observable on making the bolder venture of standing.[2]

Fear of Visible Things.

Fears excited by visual impressions come later than those excited by sounds. The reason of this seems pretty

[1] See the quotations from Sir Ch. Bell, Perez, *First Three Years of Childhood*, p. 63.

[2] Preyer seems to regard this as instinctive. *Op. cit.*, p. 131.

obvious. Visual sensations do not produce the strong effect of nervous shock which auditory ones produce. Let a person compare the violent and profound jar which he experiences on suddenly hearing a loud sound, with the slight surface-agitation produced by the sudden movement of an object across the field of vision. The latter has less of the effect of nervous jar and more of the characteristics of fear proper, that is, apprehension of evil. We should accordingly expect that eye-fears would only begin to show themselves in the child after experience had begun its educative work.[1]

At the outset it is well, as in the case of the ear-fears, to keep before us the distinction between a mere dislike to a sensation and a true reaction of fear. We shall find that children's quasi-æsthetic dislikes to certain colours may readily simulate the appearance of fears.

Among the earliest manifestations of fear excited by visual impressions we have those called forth by the presentation of something new and strange, especially when it involves a rupture of customary arrangements. Although children love and delight in what is new, their disposition to fear is apt to give to new and strange objects a disquieting, if not distinctly alarming character. This apprehension shows itself as soon as a child has begun to be used or accustomed to a particular state of things.

Among the more disconcerting effects of a rude departure from the customary, we have that of change of place. At first the infant betrays no sign of disturbance on being carried into a new room. But when once it has grown accustomed to a certain room it will feel a new one to

[1] M. Perez (*op. cit.*, p. 65) calls in the evolution hypothesis here, suggesting that the child, unlike the young animal, is so organised as to be more on the alert for dangers which are near at hand (auditory impressions) than for those at a distance (visual impressions). I confess, however, that I find this ingenious writer not quite convincing here.

be strange, and eye its features with a perceptibly anxious look. This sense of strangeness in place sometimes appears very early. The little girl M., on being taken at the age of four months into a new nursery, "looked all round and then burst out crying". This feeling of uneasiness may linger late. A boy retained up to the age of three years eight months the fear of being left alone in strange hotels or lodgings. Yet entrance on a new abode does not by any means always excite this reaction. A child may have his curiosity excited, or may be amused by the odd look of things. Thus one boy on being taken at the age of fifteen months to a fresh house and given a small plain room looked round and laughed at the odd carpet. Children even of the same age appear in such circumstances to vary greatly with respect to the relative strength of the impulses of fear and curiosity.

How different children's mental attitude may be towards the new and unfamiliar is illustrated by some notes on a boy sent me by his mother. This child, "though hardly ever afraid of strange people or places, was very much frightened as a baby *of familiar things seen after an interval*". Thus "at ten months he was excessively frightened on returning to his nursery after a month's absence. On this occasion he screamed violently if his nurse left his side for a moment for some hours after he got home, whereas he had not in the least objected to being installed in a strange nursery." The mother adds that "at thirteen months, his memory having grown stronger, he was very much pleased at coming to his home after being away a fortnight". This case looks puzzling enough at first, and seems to contradict the laws of infant psychology. Perhaps the child's partial recognition was accompanied by a sense of the uncanny, like that which we experience when a place seems familiar to us though we have no clear recollection of having seen it before.

What applies to places applies also to persons: a

sudden change of customary human surroundings by the arrival of a stranger on the scene is apt to trouble the child.

At first all faces seem alike for the child. Later on unfamiliar faces excite something like a grave inquisitorial scrutiny. Yet, for the first three months, there is no distinct manifestation of a fear of strangers. It is only later, when attachment to human belongings has been developed, that the approach of a stranger, especially if accompanied by a proposal to take the child, calls forth clear signs of displeasure and the shrinking away of fear. Preyer gives the sixth and seventh months as the date at which his boy began to cry at the sight of a strange face. In one set of notes sent me it was remarked that a child of four and a half months would cry on being nursed by a stranger. To be nursed by a stranger, however, is to have the whole baby-world revolutionised; little wonder then that it should bring the feeling of strangeness and homelessness.

Here, too, curious differences soon begin to disclose themselves, some children being decidedly more sociable towards strangers than others. It would be curious to compare the age at which children begin to take kindly to them. Preyer gives nineteen months as the date at which his boy surmounted his timidity; but it is probable that the transition occurs at very different dates in the case of different children.[1]

It is worth noting that the little boy to whom I referred just now displayed the same signs of uneasiness at seeing old friends, after an interval, as at returning to old scenes. When eight months old, "he moaned in a curious way when his nurse (of whom he was very fond) came home after a fortnight's holiday". Here, however, the signs of fear seem to be less pronounced than in the case

[1] This true fear of strangers must be distinguished from the later shyness, which, though akin to it, is a more complex feeling.

of returning to the old room. It would be difficult to give the right name to this curious moan.

Partial alteration of the surroundings frequently brings about a measure of this same mental uneasiness. Preyer's boy when one year and five months old was much disturbed at seeing his mother in a black dress. Children seem to have a special dislike to black apparel. George Sand describes her fear at having to put on black stockings when her father died. Yet any change of colour in dress will disturb a child. C., when an infant, was distressed to tears at the spectacle of a new colour and pattern on his mother's dress. This dislike to any change of dress as such is borne out by other observations. A child manifested between the age of about seven months and of two and a half years the most marked repugnance to new clothes, so that the authorities found it very difficult to get them on. It is presumable that the donning of new apparel disturbed too rudely the child's sense of his proper self.

In certain cases the introduction of new natural objects of great extent and impressiveness will produce a similar effect of childish anxiety, as though they made too violent a change in the surroundings. One of the best illustrations of this obtainable from the life of an average well-to-do child is the impression produced by a first visit to the sea. Preyer's boy at the age of twenty-one months showed all the signs of fear when his nurse carried him on her arm close to the sea.[1] The boy C. on being first taken near the sea at the age of two was disturbed by its noise. While, however, I have a number of well-authenticated cases of such an instinctive repugnance to, and something like dread of the sea, I find that there is by no means uniformity in children's behaviour in this particular. A little boy who first saw the sea at the age of thirteen months exhibited signs not of fear but of wondering delight, prettily stretching out his tiny hands towards it as if wanting to go to it.

[1] *Op. cit.*, p. 131.

Another child who also first saw the sea at the age of thirteen months began to crawl towards the waves. And yet another boy at the age of twenty-one months on first seeing the sea spread his arms as if to embrace it.

These observations show that the strange big thing affects children very differently. C. had a particular dislike to noises, which was, I think, early strengthened by finding out that his father had the same prejudice. Hence perhaps his hostile attitude towards the sea.

Probably, too, imaginative children, whose minds take in something of the bigness of the sea, will be more disposed to this variety of fear. A mother writes me that her elder child, an imaginative girl, has not even now at the age of six got over her fear of going into the sea, whereas her sister, one and a quarter years younger, and not of an imaginative temperament, is perfectly fearless. She adds that it is the bigness of the sea which evidently impresses the imagination of the elder.

Imaginative children, too, are apt to give life and purpose to the big moving noisy thing. This is illustrated in M. Pierre Loti's graphic account of his first childish impressions of the sea, seen one evening in the twilight. "It was of a dark, almost black green: it seemed restless, treacherous, ready to swallow: it was stirring and swaying everywhere at the same time, with the look of sinister wickedness."[1]

There seems enough in the vast waste of unresting waters to excite the imagination of a child to awe and terror. Hence it is needless to follow M. Loti in his speculations as to an inherited fear of the sea. He seems to base this supposition on the fact that at this first view he distinctly *recognised* the sea. But such recognition may have meant merely the objective realisation of what had no doubt been before pretty fully described by his mother and aunt, and imaginatively pictured by himself.

[1] *Le Roman d'un Enfant.*

The opposite attitude, that of the thoroughly unimaginative child, in presence of the sea is well illustrated by the story of a little girl aged two, who, on being first taken to see the watery wonder, exclaimed, "Oh, mamma, look at the soapy water". The awful mystery of all the stretch of ever-moving water was invisible to this child, being hidden behind the familiar detail of the 'soapy' edge.

There is probably nothing in the natural world which makes on the childish imagination quite so awful an impression as the watery Leviathan. Perhaps the fear which one of my correspondents tells me was excited in her when a child by the sudden appearance of a mountain may be akin to this dread of the sea.

We may now pass to another group of fear-excitants, the appearance of certain strange forms and movements of objects.

The close connexion between æsthetic dislike and fear is seen in the well-marked recoilings of children from odd uncanny-looking dolls. The girl M., when just over six months old, was frightened at a Japanese doll so that it had to be put in another room. Another child when thirteen months old was terrified at the sight of an ugly doll. The said doll is described as black with woolly head, startled eyes, and red lips. Such an ogre might well call up a tremor in the bravest of children. In another case, that of a little boy of two years and two months, the broken face of a doll proved to be highly disconcerting. The mother describes the effect as mixed of fear, distress, and intellectual wonder. Nor did his anxiety depart when some hours later the doll, after sleeping in his mother's room, reappeared with a new face.

In such cases, it seems plain, it is the ugly transformation of something specially familiar and agreeable which excites the feeling of nervous apprehension. Making grimaces, that is the spoiling of the typical familiar face, may, it is said, disturb a child even at the early age of two

months.[1] It is much the same when the child M., at the age of thirteen months three weeks, was frightened and howled when a lady looked at her close with blue spectacles, though she was quite used to ordinary glasses. Such transformations of the homely and assuring face are, moreover, not only ugly but bewildering to the child, and where all is mysterious and uncanny the child is apt to fear. Whether "inherited associations" involving a dim recognition of the *meaning* of these distortions play any part here I do not feel at all certain.

Children, like animals, will sometimes show fear at the sight of what seems to us a quite harmless object. A shying horse is a puzzle to his rider: his terrors are so unpredictable. Similarly in the case of a timid child almost anything unfamiliar and out of the way, whether in the colour, the form, or the movement of an object, may provoke a measure of anxiety. Thus a little girl, aged one year and ten months, showed signs of fear during a drive at a row of grey ash trees placed along the road. This was just the kind of thing that a horse might shy at.

As with animals, so with children, any seemingly uncaused movement is apt to excite a feeling of alarm. Just as a dog will run away from a leaf whirled about by the wind, so children are apt to be terrified by the strange and quite irregular behaviour of a feather as it glides along the floor or lifts itself into the air. A little girl of three, standing by the bedside of her mother (who was ill at the time), was so frightened at the sight of a feather, which she accidentally pulled out of the eiderdown quilt, floating in the air that she would not approach the bed for days afterwards.[2]

In these cases we may suppose that we have to do with a germ of superstitious fear, which seems commonly to have its starting point in the appearance of something excep-

[1] Quoted by Tracy, *op. cit.*, p. 29. But this observation seems to me to need confirmation.

[2] See *The Pedagogical Seminary*, i., No. 2, p. 220.

tional and uncanny, that is to say, unintelligible, and so smacking of the supernatural. The fear of feathers as uncanny objects plays, I am told, a considerable part in the superstitions of folk-lore. Such apparently self-caused movements, so suggestive of life, might easily give rise to a vague sense of a mysterious presence or power possessing the object, and so lead to a crude form of a belief in supernatural agents.

In other cases of unexpected and mysterious movement the fear is slightly different. A little boy when one year and eleven months old was frightened when in a lady's house by a toy elephant which shook its head. The same child, writes his mother, "at one year seven months was very much scared by a toy cow which mooed realistically when its head was moved. This cow was subsequently given to him, at about two years and three months. He was then still afraid of it, but became reconciled soon after, first allowing others to make it moo if he was at a safe distance, and at last making it moo himself."

There may have been a germ of the fear of animals here: but I suspect that it was mainly a feeling of uneasiness at the signs of life (movement and sound) appearing when they are not expected, and have an uncanny aspect. The close simulation of a living thing by what is known to be not alive is disturbing to the child as to the adult. He will make his toys alive by his own fancy, yet resent their taking on the full semblance of reality. In this sense he is a born idealist and not a realist. More careful observations on this curious group of child-fears are to be desired.

The fear of shadows is closely related to that of moving toys. They are semblances, though horribly distorted semblances, and they are apt to move with an awful rapidity. The unearthly mounting shadows which accompany the child as he climbs the staircase at night have been instanced by writers as one of childhood's freezing horrors. Mr. Stevenson writes:—

Now my little heart goes beating like a drum,
With the breath of the Bogie in my hair;
And all round the candle the crooked shadows come,
And go marching along up the stair;
The shadow of the balusters, the shadow of the lamp,
The shadow of the child that goes to bed—
All the wicked shadows coming tramp, tramp, tramp,
With the black night overhead.

I have noticed a young cat—the same that showed such terror at the playing of the piano—watch its own shadow rising on the wall, and, as I thought, with a look of apprehension.

The Fear of Animals.

I have purposely reserved for special discussion two varieties of children's fear, namely, dread of animals and of the dark. As the former certainly manifests itself before the latter I will take it first.

It seems odd that the creatures which are to become the companions and playmates of children, and one of the chief sources of their happiness, should cause so much alarm when they first come on the scene. Yet so it is. Many children, at least, are at first put out by quite harmless members of the animal family. We must, however, be careful here in distinguishing between mere nerve-shock and dislike on the one hand and genuine fear on the other. Thus a lady whom I know, a good observer, tells me that her boy, though when he was fifteen months old his nerves were shaken by the loud barking of a dog, had no real fear of dogs. With this may be contrasted another case, also sent by a good observer, in which it is specially noted that the aversion to the sound of a dog's barking developed late and was a true fear.

Æsthetic dislikes, again, may easily give rise to quasi-fears, though, as we all know, little children have not the horrors of their elders in this respect. The boy C. could

not understand his mother's scare at the descending caterpillar. A kind of æsthetic dislike appears to show itself sometimes towards animals of peculiar shape and colour. A black animal, as a sheep or a cow, seems more particularly to come in for these childish aversions.

At first it seems impossible to understand why a child in the fourteenth week should shrink from a cat.[1] This is not, so far as I can gather, a common occurrence at this age, and one would like to cross-examine the mother on the precise way in which the child had its first introduction to the domestic pet. So far as one can speculate on the matter, one would say that such early shrinking from animals is probably due to their sudden unexpected movements, which may well disconcert the inexperienced infant accustomed to comparatively restful surroundings.

This seems borne out by another instance, also quoted by Preyer, of a girl who in the fourth month, as also in the eleventh, was so afraid of pigeons that she could not bring herself to stroke them. The prettiness of the pigeon, if not of the cat, ought, one supposes, to ensure the liking of children; and one has to fall back on the supposition of the first disconcerting strangeness of the moving animal world for the child's mind.

Later shrinkings from animals show more of the nature of fear. It is sometimes said that children inherit from their ancestors the fear of certain animals. Thus Darwin, observing that his boy when taken to the Zoological Gardens at the age of two years and three months showed fear of the big caged animals whose form was unfamiliar to him (lions, tigers, etc.), infers that this fear is transmitted from savage ancestors whose conditions of life compelled them to shun these deadly creatures. But as M. Compayré has well shown[2] we do not need this hypothesis here. The unfamiliarity of the form of the animal, its bigness, together

[1] Quoted by Preyer, *op. cit.*, p. 127. The word he uses is "scheuen".

[2] *Evolution intellectuelle et morale de l'Enfant*, p. 102.

with the awful suggestions of the cage, would be quite enough to beget a vague sense of danger.

So far as I can ascertain facts are strongly opposed to the theory of an inherited fear of animals. Just as in the first months a child will manifest something like recoil from a pretty and perfectly innocent pigeon, so later on children manifest fear in the most unlikely directions. In *The Invisible Playmate*, we are told of a girl who got her first fright on seeing a sparrow drop on the grass near her, though she was not the least afraid of big things, and on first hearing the dog bark in his kennel said with a little laugh of surprise, 'Oh! coughing'.[1] A parallel case is sent me by a lady friend. One day when her daughter was about four years old she found her standing, the eyes wide open and filled with tears, the arms outstretched for help, evidently transfixed with terror, while a small wood-louse made its slow way towards her. The next day the child was taken for the first time to the "Zoo," and the mother anticipating trouble held the child's hand. But there was no need. A 'fearless spirit' in general, she released her hand at the first sight of the elephant, and galloped after the monster. If inheritance played a principal part in the child's fear of animals one would have expected the facts to be reversed: the elephant should have excited dread, not the harmless insect.

So far as my own observations have gone there seems to be but little uniformity among children's fears of the animal world. What frightens one child may delight another at about the same age. Perhaps there is a tendency to a special dread of certain animals, more particularly the wolf, which as folk-lore tells us reflects the attitude of superstitious adults. Yet it is probable that, as the case of the boy C. suggests, the dread of the wolf grows out of that of the dog, the most alarming of the domestic animals, while it is vigorously sustained by fairy-story.

[1] See pp. 26, 27.

For the rest children's shrinking from animals has much of the caprice of grown-up people's. Not that there is anything really inexplicable in these odd directions of childish fear, any more than in the unpredictable shyings of the horse If we knew the whole of the horse's history, and could keep a perfect register of the fluctuations of 'tone' in his nervous system, we should understand all his shyings. So with the child. All the vagaries of his dislike to animals would be cleared up if we could look into the secret workings of his mind and measure the varying heights of his courage.

That some of this early disquietude at the sight of strange animals is due to the workings of the mind is seen in the behaviour of Preyer's boy when at the age of twenty-seven months he was taken to see some little pigs. The boy at the first sight looked earnest, and as soon as the lively little creatures began to suckle the mother he broke out into a fit of crying and turned away from the sight with all the signs of fear. It appeared afterwards that what terrified the child was the idea that the pigs were biting their mother; and this gave rise in the fourth and fifth years to recurrent nocturnal fears of the biting piglets, something like C.'s nocturnal fear of the wolf.[1] To an imaginative child strongly predisposed to fear, anything suggestive of harm will suffice to beget a measure of trepidation. A child does not want direct experience of the power of a big animal in order to feel a vague uneasiness when near it. His own early inductions respecting the correlation of bigness with strength, aided as this commonly is by information picked up from others, will amply suffice. In the case of the dog, the rough shaggy coat, the teeth which he is told can bite, the swift movements, and w rse than all the appalling bark, are quite enough to disconcert a timid child. Even the sudden pouncing down of a sparrow may prove upsetting to a fearful mite as suggesting attack; and

[1] See Preyer, *op. cit.*, p. 130.

a girl of four may be quite capable of imagining the unpleasantness of an invasion of her dainty person by a small creeping wood-louse—which though running slowly was running towards herself—and so of getting a fit of shudders.

It is, I think, undeniable that imaginative children, especially when sickly and disposed to alarm, are subject to a real terror at the thought of the animal world. Its very vastness, the large variety of its uncanny and savage-looking forms—appearing oftentimes as ugly distortions of the human face and figure—this of itself, as known from picture-books, may well generate many a vague alarm. We know from folk-lore how the dangers of the animal world have touched the imagination of simple peoples, and we need not be surprised that it should make the heart of the wee weakly child to quake. Yet the child's shrinking from animals is less strong than the impulse of companionship which bears him towards them. Tiny children quite as often show the impulse to run after ducks and other animals as to be alarmed at them. Nothing perhaps is prettier in child-life than the pose and look of one of these defenceless youngsters as he is getting over his trepidation at the approach of a strange big dog and 'making friends' with the shaggy monster. The perfect love which lies at the bottom of children's hearts towards their animal kinsfolk soon casts out fear. And when once the reconciliation has been effected it will take a good deal of harsh experience to make the child ever again entertain the thought of danger.

Fear of the Dark.

Fear of the dark, that is, fear excited by the actual experience or the idea of being in the dark, and especially *alone* in the dark, and the allied dread of dark places as closets and caves, is no doubt very common among children, and seems indeed to be one of their recognised

characteristics. Yet it is by no means certain that it is 'natural' in the sense of developing itself in all children.

It is certain that children have no such fear at the beginning of life. A baby of three or four months if accustomed to a light may very likely be disturbed at being deprived of it: but this is some way from a dread of the dark.[1]

Fear of the dark seems to arise when intelligence has reached a certain stage of development. It apparently assumes a variety of forms. In some children it is a vague uneasiness, in others it takes the shape of a more definite dread. A common variety of this dread is connected with the imaginative filling of the dark with the forms of alarming animals, so that the fear of animals and of the dark are closely connected. Thus, in one case reported to me, a boy between the ages of two and six used at night to see 'the eyes of lions and tigers glaring as they walked round the room'. The boy C. saw his *bête noire* the wolf in dark places. Mr. Stevens in his note on his boy's idea of the supernatural remarks that at the age of one year and ten months, when he began to be haunted by the spectre of 'Cocky,' he was temporarily seized with a fear of the dark.[2] It is important to add that even children who have been habituated to going to bed in the dark in the first months are liable to acquire the fear.

This mode of fear is, however, not universal among children. One lady, for whose accuracy I can vouch,

[1] A mother sends me a curious observation bearing on this. One of her children when four months old was carried by her upstairs in the dark. On reaching the light she found the child's face black, her hands clenched, and her eyes protruding. As soon as she reached the light she heaved a sigh and resumed her usual appearance. This child was in general hardy and bold and never gave a second display of terror. This is certainly a curious observation, and it would be well to know whether similar cases of apparent fright at being carried in the dark have been noticed.

[2] *Mind*, xi., p. 149.

assures me that her boy, who is now four years old, has never manifested the feeling. A similar statement is made by a careful observer, Dr. Sikorski, with reference to his own children.[1] It seems possible to go through childhood without making acquaintance with this terror, and to acquire it in later life. I know a lady who only acquired the fear towards the age of thirty. "Curiously enough (she writes) I was never afraid of the dark as a child; but during the last two years I hate to be left alone in the dark, and if I have to enter a dark room, like my study, beyond the reach of the maids from downstairs, I notice a remarkable acceleration in my heart-beat and hurry to strike a light or rush downstairs as quickly as possible."

We can faintly conjecture from what Charles Lamb and others have told us about the spectres that haunted their nights what a weighty crushing horror this fear of the dark may become. Hence we need not be surprised that the writer of fiction has sought to give it a vivid and adequate description. Victor Hugo, for example, when in *Les Misérables* he is painting the feelings of little Cosette, who has been sent out alone at night to fetch water from a spring in a wood, says she "felt herself seized by the black enormity of Nature. It was not only terror which possessed her, it was something more terrible even than terror."

Different explanations have been offered of this fear. Locke, who when writing on educational matters was rather hard on nurses and servants, puts down the whole of these fears to those wicked persons, "whose usual method is to awe children and keep them in subjection by telling them of Raw Head and Bloody Bones, and such other names as carry with them the idea of something terrible and hurtful, which they have reason to be afraid of when

[1] Quoted by Compayré, *op. cit.*, p. 100. *Cf.* Perez, *L'Education dès le berceau*, p. 103.

alone, especially in the dark".[1] Rousseau on the other hand urges that there is a natural cause. "Accustomed as I am to perceive objects from a distance, and to anticipate their impressions in advance, how is it possible for me, when I no longer see anything of the objects that surround me, not to imagine a thousand creatures, a thousand movements, which may hurt me, and against which I am unable to protect myself?"[2]

Rousseau here supplements and corrects Locke. For one thing I have ascertained in the case of my own child, and in that of others, that a fear of the dark has grown up when the influence of the wicked nurse has been carefully eliminated. Locke forgets that children can get terrifying fancies from other children, and from all sorts of suggestions, unwittingly conveyed by the words of respectable grown people. Besides, he leaves untouched the question, why children when left alone in the dark should choose to dwell on these fearful images, rather than on the bright pretty ones which they also acquire. R. L. Stevenson has told us how happy a child can make himself at night with such pleasing fancies. Yet it must be owned that darkness seems rather to favour images of what is weird and terrible. How is this? Rousseau gets some way towards answering the question by saying (as I understand him to say) that darkness breeds a sense of insecurity. I do not, however, think that it is the inconvenience of being in the dark which generates the fear: a child might, I imagine, acquire it without ever having had to explore a dark place.

I strongly suspect that the fear of darkness takes its rise in a sensuous phenomenon, a kind of physical repugnance. All sensations of very low intensity, as very soft vocal sounds, have about them a tinge of melancholy, a *tristesse,* and this is especially noticeable in the sensations

[1] *Thoughts on Education*, sect. 138.
[2] *Emile*, book ii.

which the eye experiences when confronted with a dark space, or, what is tantamount to this, a black and dull surface. The symbolism of darkness and blackness, as when we talk of 'gloomy' thoughts or liken trouble to a 'black cloud,' seems to rest on this effect of melancholy.

Along with this gloomy character of the sensation of dark, and not always easy to distinguish from it, there goes the craving of the eye for its customary light, and the interest and the gladness which come with seeing. When the eye and brain are not fatigued, that is when we are wakeful, this eye-ache may become an appreciable pain; and it is probable that children feel the deprivation more acutely than grown persons, owing to the abundance of their visual activity as well as to the comparatively scanty store of their thought-resources. Add to this that darkness, by extinguishing the world of visible things, would give to a timid child tenacious of the familiar home-surroundings a peculiarly keen sense of strangeness and of loneliness, of banishment from all that he knows and loves. The reminiscences of this feeling described in later life show that it is the sense of solitude which oppresses the child in his dark room.[1]

This, I take it, would be quite enough to make the situation of confinement in a dark room disagreeable and depressing to a wakeful child even when he is in bed and there is no restriction of bodily activity. But even this would not amount to a full passionate dread of darkness. It seems to me to be highly probable that a baby of two or three months might feel this vague depression and even this craving for the wonted scene, especially just after the removal of a light; yet such a baby, as we have seen, gives no clear indications of fear

Fear of the dark arises from the development of the child's imagination, and might, I believe, arise without any suggestion from nurse or other children of the notion that

[1] See especially James Payn, *Gleams of Memory*, pp. 3, 4.

there are bogies in the room. Darkness is precisely the situation most favourable to vivid imagination: the screening of the visible world makes the inner world of fancy vivid and distinct by contrast. Are we not all apt to shut our eyes when we try to 'visualise' or picture things very distinctly? This fact of a preternatural activity of imagination, taken with the circumstance emphasised by Rousseau that in the darkness the child is no longer distinctly aware of the objects that are actually before him, would help us to understand why children are so much given to projecting into the unseen black spaces the creatures of their imagination. Not only so—and this Rousseau does not appear to have recognised—the dull feeling of depression which accompanies the sensation of darkness might suffice to give a gloomy and weird cast to the images so projected.

But I am disposed to think that there is yet another element in this childish fear. I have said that darkness gives a positive sensation: we *see* it, and the sensation, apart from any difference of signification which we afterwards learn to give to it, is of the same kind that is obtained by looking at a dull black surface. To the child the difference between a black object and a dark unillumined space is as yet not clear, and I believe it will be found that children tend to materialise or to 'reify' darkness. When, for example, a correspondent tells me that darkness was envisaged by her when a child as "a crushing power," I think I see traces of this childish feeling. I seem able to recall my own childish sense of a big black something on suddenly waking and opening the eyes in a very dark room.

But there is still another thing to be noticed in this sensation of darkness. The black field is not uniform; some parts of it show less black than others, and the indistinct and rude pattern of comparatively light and dark changes from moment to moment; while now and again more definite spots of brightness may focus themselves. The varying activity of the retina would seem to account for this

apparent changing of the black scene. What, my reader may not unnaturally ask, has this to do with a child's fear of the dark? If he will recall what was said about the facility with which a child comes to see faces and animal forms in the lines of a cracked ceiling, or the veining of a piece of marble, he will, I think, recognise the drift of my remarks. These slight and momentary differences in the blackness, these fleeting rudiments of a pattern, may serve as a sensuous base for the projected images; the child with a strongly excited fancy sees in these dim traces of the black formless waste definite forms. These will naturally be the forms with which he is most familiar, and since his fancy is at the moment tinged with melancholy they will be gloomy and disturbing forms. Hence we may expect to hear of children seeing the forms of terrifying living things in the dark.

Here is a particularly instructive case. A boy of four years had for some time been afraid of the dark and indulged by having the candle left burning at night. On hearing that the Crystal Palace had been burned down he asked for the first time to have the light taken away, fear of the dark being now cast out by the bigger fear of fire. Some time after this he volunteered an account of his obsolete terrors to his father. "Do you know," he said, "what I thought dark was? A great large live thing the colour of black with a mouth and eyes." Here we have the 'reifying' of darkness, and we probably see the influence of the comparatively bright spots in the attribution of eyes to the monster, an influence still more apparent in the instance quoted above, where a child saw the eyes of lions and tigers glaring as they walked round the room. Another suggestive instance here is that given by M. Compayré, in which a child on being asked why he did not like to be in a dark place answered: "I don't like chimney-sweeps".[1] Here the blackness with its dim suggestions of brighter spots determined

[1] *Op. cit.*, pp. 100, 101.

the image of the black chimney-sweep with his white flashes of mouth and eyes.[1] I should like to observe here parenthetically that we still need to learn from children themselves, by talking to them and inviting their confidence when the fear of the dark is first noticed, how they are apt to envisage it.

When imagination becomes abnormally active, and the child is haunted by alarming images, these by recurring with greatest force in the stillness and darkness of the night will add to the terrifying associations of darkness. This is illustrated in the case of the boy Stevens, who was haunted by the spectre of 'Cocky' at night. Dreams, especially of the horrible nightmare kind to which nervous children are subject, may invest the dark with a new terror. A child suddenly waking up and with open eyes seeing the phantom-object of his dream against the black background may be forgiven for acquiring a dread of dark rooms. Possibly this experience gives the clue to the observation already quoted of a boy who did not want to sleep in a particular room because there were so many dreams in it.

If the above explanation of the child's fear of the dark is a sound one Rousseau's prescription for curing it is not enough. Children may be encouraged to explore dark rooms, and by touching blind-like their various objects rendered familiar with the fact that things remain unchanged even when enveloped in darkness, that the dark is nothing but our temporary inability to see things; and this may no doubt be helpful in checking the fear when calm reflexion becomes possible. But a radical cure must go farther, must aim at checking the activity of morbid imagination—and here what Locke says about the effects of the terrifying stories of nurses is very much to the point—and in extreme cases

[1] It is supposable too that disturbances of the retina giving rise to subjective luminous sensations, as the well-known small bright moving discs, might assist in the case of nervous children in suggesting glaring eyes.

must set about strengthening shaky nerves. Mothers would do well to remember that even religious instruction when injudiciously presented may add to the terrors of the dark for these wee tremulous organisms. One observation sent me strongly suggests that a child may take a strong dislike to being shut up in the dark with the terrible all-seeing God.

Fears and their Palliatives.

I have probably illustrated the first fears of children at sufficient length. Without trying to exhaust the subject I have, I think, shown that fear of a well-marked and intense kind is a common feature of the first years of life, and that it assumes a Protean variety of shapes.

Much more will no doubt have to be done in the way of methodical observation, and more particularly statistical inquiry into the comparative frequency of the several fears, the age at which they commonly appear, and so forth, before we can build up a theory of the subject. One or two general observations may, however, be hazarded even at this stage.

The thing which strikes one most perhaps in these early fears is how little they have to do with any remembered experience of evil. The child is inexperienced, and if humanely treated knows little of the acuter forms of human suffering. It would seem at least as if he feared not because experience had made him apprehensive of evil, but because he was constitutionally and instinctively nervous, and possessed with a feeling of insecurity. This feeling of weakness and insecurity comes to the surface in presence of what is unknown in so far as this can be brought by the child's mind into a relation to his welfare—as disturbing noises, and the movements of things, especially when they take on the form of approaches. The same thing is, as we have seen, illustrated in the fear of the dark. A like explanation seems to offer itself for other common forms of fear, especially those excited by others'

threats, as the dread of the policeman, and little George Sand's horror at the idea of being shut up all night in the 'crystal prison' of a lamp. The fact that children's fears are not the direct product of experience is expressed otherwise by saying that they are the offspring of the imagination. A child is apt to be afraid because he fancies things, and it will probably be demonstrated by statistical evidence that the most imaginative children (other things being equal) are the most subject to fear.

In certain of these characteristics, at least, children's fears resemble those of animals. In both alike fear is much more an instinctive recoil from the unknown than an apprehension of known evil. The shying of a horse, the apparent fear of dogs at certain noises, probably too the fear of animals at the sight and sound of fire—so graphically described by Mr. Kipling in the case of the jungle beasts—illustrate this. Animals too seem to have a sense of the uncanny, when something apparently uncaused happens, as when Romanes excited fear in a dog by attaching a fine thread to a bone, and by surreptitiously drawing it from the animal, giving to the bone the look of self-movement. The same dog was frightened by soap-bubbles. According to Romanes, dogs are frightened by portraits. It is to be added, however, that in certain of animal fears the influence of heredity is clearly recognisable, whereas in children's fears I have regarded it as doubtful. The fact that a child is not frightened at fire, which terrifies many animals, seems to illustrate this difference.[1]

Another instructive comparison is that of children's fears with those of savages. Both have a like feeling of insecurity, and fall instinctively in presence of a big unknown into the attitude of dread. In the region of superstitious

[1] See Perez, *L'Education dès le berceau*, pp. 96-99. On animal fears, see further Romanes, *Animal Intelligence*, p. 455 f.; Preyer, *op. cit.*, p. 127 ff. and p. 135; Perez, *First Three Years of Childhood*, p. 64 ff.

fear more particularly, we see how in both a gloomy fancy forestalls knowledge, investing the new and unexplored with alarming traits.

Lastly, children's fears have some resemblance to certain abnormal mental conditions. Idiots, who are so near normal childhood in their degree of intelligence, show a marked fear of strangers. More interesting, however, in the present connexion, is the exaggeration of the childish fear of new objects which shows itself in certain mental aberrations. There is a characteristic dread of newness, neophobia, just as there is a dread of water.[1]

While, however, these are the dominant characteristics of children's fears they are not the only ones. Experience begins to direct the instinctive fear-impulse from the very beginning. How much it does in the first months of life it is difficult to say. In the aversion of a baby to its medicine glass, or its cold bath, one sees, perhaps, more of the rude germ of passion or anger than of fear. Careful observations seem to me to be required on the point, at what definite date signs of fear arising from experience of pain begin to show themselves in the child. Some children, at least, have a surprising way of not minding even considerable amounts of physical pain: the misery of a fall, a blow, a cut, and so forth, being speedily forgotten. It seems doubtful, indeed, whether the venerable saw, 'The burnt child dreads the fire,' is invariably true. It appears, in many cases at least, to take a good amount of real agony to produce a genuine fear in a young child.[2] This tendency to belittle pain is not unknown, I suspect, to the tutor of small boys. It may well be that a definite and

[1] See Compayré, *op. cit.*, pp. 99, 100.

[2] On this point there are some excellent observations made by Miss Shinn, who points out that physical pain when not too severe is apt to be lost sight of in the new feeling of personal consequence to which it gives rise (*Notes on the Development of a Child*, pt. ii., p. 144 ff.).

precise recalling of the misery of a scratch, or even of a moderate burn, may not conduce to the development of a true fear, and that here, too, fear when it arises in all its characteristic masterfulness is at bottom fear of the unknown. This seems illustrated by the well-known fact that a child will be more terrified during a first experience of pain, especially if there be a visible hurt and bleeding, than by any subsequent prospect of a renewal of the catastrophe. Is not the same thing true, indeed, of older fears? Should we dread the wrench of a tooth-extraction if it were experienced very often, and we had a sufficiently photographic imagination to be able to estimate precisely the intensity and duration of the pain?

Much the same thing shows itself in the cases where fear can be clearly traced to experience and association. In some of these it is no doubt remembered experience of suffering which causes the fear. A child that has been seriously burned will unquestionably be frightened at a too close approach of a red-hot poker. But in many cases of this excitation of fear by association it is the primary experience of fear itself which seems to be the real object of the apprehension. Thus a child who has been frightened by a dog will betray signs of fear at the sight of a kennel, of a picture of a dog, and so forth. The little boy referred to above who was afraid of the toy elephant that shook its head showed signs of fear a fortnight afterwards on coming across a picture of an elephant in a picture-book. In such ways does fear propagate fear in the timid little breast.

One cannot part from the theme of children's fears without a reference to a closely connected subject, the problem of their happiness. To ask whether childhood is a happy time, still more to ask whether it is the happiest, is to raise perhaps a foolish and insoluble question. Later reminiscences would seem in this case to be particularly untrustworthy. Children themselves no doubt may have very definite views on the subject. A child will tell you

with the unmistakable marks of profound conviction that he is *so* unhappy. But paradoxical as it may seem, children really know very little about the matter. At the best they can only tell you how they feel at particular moments. To seek for a precise and satisfactory solution of the problem is thus futile. Only rough comparisons of childhood and later life are possible.

In any such comparison the fears of early years claim, no doubt, careful consideration. There seem to be people who have no idea what the agony of these early terrors amounts to. And since it is the unknown that excites this fear, and the unknown in childhood is almost everything, the possibilities of suffering from this source are great enough.

> Alike the Good, the Ill offend thy Sight,
> And rouse the stormy sense of shrill affright.

George Sand hardly exaggerates when she writes: "Fear is, I believe, the greatest moral suffering of children". In the case of weakly, nervous and imaginative children, more especially, this susceptibility to terror may bring miserable days and yet more miserable nights.

Nevertheless, it is easy here to pass from one extreme of brutal indifference to another of sentimental exaggeration. Childish suffering is terrible while it lasts, but happily it has a way of not lasting. The cruel distorting fit of terror passes and leaves the little face with its old sunny out-look. It is to be remembered, too, that while children are pitiably fearful in their own way, they are, as we have seen in the case of the little Walter Scott, delightfully fearless also, as judged by our standards. How oddly fear and fearlessness go together is illustrated in a story sent me. A little boy fell into a brook. On his being fished out by his mother, his sister, aged four, asked him: 'Did you see any crocodiles?' 'No,' answered the boy, 'I wasn't in long enough.'

The absence of fear of the water itself was as characteristic as the presence of fear of the crocodile.

It is refreshing to find that in certain cases at least where older people have done their worst to excite terror, a child has escaped its suffering. Professor Barnes tells us that a Californian child's belief in the supernatural takes on a happy tone, directing itself to images of heaven with trees, birds, and other pretty things, and giving but little heed to the horrors of hell.[1] In less sunny climes than California children may not, perhaps, be such little optimists, and it is probable that graphic descriptions of hell-fire have sent many a creepy thrill of horror along a child's tender nerves. Still it may be said that, owing to the fortunate circumstance of children having much less fear of fire than many animals, the misery in which eternal punishment is wont to be bodied forth does not work so powerfully as one might expect on a child's imagination. The author of *The Uninitiated* illustrates a real child-trait when she makes her small heroine conceive of hell as a place that *smelt* nastily (from its brimstone)[2] Then it is noticeable that children in general are but little affected by fear at the sight or the thought of death. The child C. had a passing dread of being buried, but his young hopeful heart refused to credit the fact of that far-off calamity. Other children, I find, dislike the idea of death as threatening to deprive them of their mother. Perhaps they can more readily suppose that somebody else will die than that they themselves will do so. This comparative immunity from the dread of death is no small deduction to be made from the burden of children's fear.

Not only so, when fear is apt to be excited, Nature has provided the small timorous person with other instincts which tend to mitigate and even to neutralise it. It is a happy circumstance that the most prolific excitant of fear, the presentation of something new and uncanny, is also

[1] *Pedagogical Seminary*, ii., 3, p. 445. [2] p. 43.

provocative of another feeling, that of curiosity, with its impulse to look and examine. Even animals are sometimes divided in the presence of something strange between fear and curiosity,[1] and children's curiosity is much more lively than theirs. A very tiny child, on first making acquaintance with some form of physical pain, as a bump on the head, will deliberately repeat the experience by knocking his head against something as if experimenting and watching the effect. A clearer case of curiosity overpowering fear is that of a child who, after pulling the tail of a cat in a bush and getting scratched, proceeded to dive into the bush again.[2] Still more interesting here are the gradual transitions from actual fear before the new and strange to bold inspection. The child who was frightened by her Japanese doll insisted on seeing it every day. The behaviour of one of these small persons on the arrival at the house of a strange dog, of a dark foreigner, or some other startling novelty, is a pretty and amusing sight. The first overpowering timidity, the shrinking back to the mother's breast, followed by curious peeps, then by bolder outstretchings of head and arms, mark the stages by which curiosity and interest gain on fear and finally leave it far behind. Very soon we know the small timorous creatures will grow into bold adventurers. They will make playthings of the alarming animals, and of the alarming shadows too.[3] Later on still perhaps they will love nothing so much as to probe the awful mysteries of gunpowder.

One palliative of these early terrors remains to be touched on, the instinct of sheltering or refuge-taking. The first manifestations of what is called the social nature

[1] Some examples are given by Preyer, *op. cit.*, p. 135.

[2] Miss Shinn, *op. cit.*, p. 150.

[3] Stevenson, the same who has described the terrors of moving shadows, illustrates how a child may make a sort of playfellow of his shadow (*A Child's Garden of Verses*, xviii.).

of children are little more than the reverse side of their timidity. A baby will cease crying at night on hearing the familiar voice of mother or nurse because a vague sense of human companionship does away with the misery of the black solitude. A frightened child probably knows an ecstasy of bliss when folded in the protective embrace of a mother's arms. Even the most timid children never have the full experience of terror so long as there is within reach the secure base of all their reconnoitring excursions, the mother's skirts. Happy those little ones who have ever near them loving arms within whose magic circle the on-coming of the cruel fit of terror is instantly checked, giving place to a delicious calm.

How unhappy those children must be who, being fearsome by nature, lack this refuge, who are left much alone to wrestle with their horrors as best they may, and are rudely repulsed when they bear their heart-quakings to others, I would not venture to say. Still less should I care to suggest what is suffered by those unfortunates who find in those about them not comfort, assurance, support in their fearsome moments, but the worst source of their terrors. To be brutal to these small sensitive organisms, to practise on their terrors, to take delight in exciting the wild stare and wilder shriek of terror, this is perhaps one of the strange things which make one believe in the old dogma that the devil can enter into men and women. For here we seem to have to do with a form of cruelty so exquisite, so contrary to the oldest of instincts, that it is dishonouring to the savage and to the lower animals to attempt to refer it to heredity.

To dwell on such things, however, would be to go back to a pessimistic view of childhood. It is undeniable that children are exposed to indescribable misery when they are delivered into the hands of a consummately cruel guardian. Yet one may hope that this sort of person is exceptional, something of which we can give no ac-

count save by saying that now and again in sport nature produces a monster, as if to show what she could do if she did not choose more wisely and benignly to work within the limitations of type

VII.

RAW MATERIAL OF MORALITY

Primitive Egoism.

PERHAPS there has been more hasty theorising about the child's moral characteristics than about any other of his attributes. The very fact that diametrically opposed views have been put forward is suggestive of this haste. By certain theologians and others infancy has been painted in the blackest of moral colours. According to M. Compayré it is a bachelor, La Bruyère, and a bishop, Dupanloup, who have said the worst things of children; and the parent or teacher who wants to see how bad this worst is may consult M. Compayré's account.[1] On the other hand, Rousseau and those who think with him have invested the child with an untarnished purity. According to Rousseau the child comes from the Creator's hand a perfect bit of workmanship, which blundering man at once begins to mar. Children's freedom from human vices has been a common theme of the poet: their innocence was likened by M. About to the spotless snow of the Jungfrau. Others, as Wordsworth, have gone farther and attributed to the infant positive excellences, glimpses of a higher morality than ours, Divine intuitions brought from a prenatal existence.

Such opposite views of the moral status and worth of a child must be the result of prepossession, and the magnifying of the accidents of individual experience. A theologian who

[1] *L'Evolution intell. et mor. de l'Enfant*, chap. xiv., ii.

is concerned to maintain the doctrine of natural depravity, or a bachelor who happens to have known children chiefly in the character of little tormentors, may be expected to paint childhood with black pigments. On the other hand the poet, attracted by the charm of infancy, may, as we have seen, easily be led to idealise its moral aspects.

The first thing that strikes one in all such attempts to fix the moral worth of the child is that they are judging of things by wrong standards. The infant, though it has a nature capable of becoming moral or immoral, is not as yet a moral being; and there is a certain impertinence in trying to force it under our categories of good and bad, pure and corrupt.

If then we would know what the child's 'moral' nature is like we must be careful to distinguish. By 'moral' we must understand that part of his nature, feelings and impulses, which has for us a moral significance; whether as furnishing raw material out of which education may develop virtuous dispositions, or contrariwise, as constituting forces adverse to this development. It may be well to call the former tendencies favourable to virtue, pro-moral, those unfavourable, contra-moral. Our inquiry, then, must be: In what respects, and to what extent, does the child show himself by nature, apart from all that is meant by education, pro-moral or contra-moral, that is, well or ill fitted to become a member of a good or virtuous community and to exercise what we know as moral functions?

Our especial object here will be if possible to get at natural dispositions, to examine the child in his primitive nakedness, looking out for those instinctive tendencies which according to modern science are only a little less clearly marked in the young of our own species than in a puppy or a chick.

Now there is clearly a difficulty here. How, it may be asked, can we expect to find in a child any traits having a moral significance which have not been developed by

social influences and education? In the case of pro-moral dispositions more particularly, as kindness, or truthfulness, we cannot expect to get rid of the effect of the combined personal influence and instruction of the mother, which is of the essence of all moral training. Even with regard to contra-moral traits, as rudeness, or lying, it is evident that example is frequently a co-operating influence.

The difficulty is no doubt a real one, and cannot be wholly got rid of. We cannot completely eliminate the influence of the common life in which the good and bad disposition alike may be said to grow up. Yet we may distinguish. Thus we may look out for the earliest spontaneous and what we may call original manifestations of such dispositions as affection and truthfulness, so as to eliminate the *direct* action of instruction and example, and thus to reduce the influence of the social medium on the child to a minimum. Similarly in the case of brutal and other unlovely propensities, we may by taking pains get rid of the influence of bad example.

Let us see, then, how far the indictment of the child is a just one. Do children tend spontaneously to manifest the germs of vicious dispositions, and if so, to what extent? Here, as I have suggested, we must be particularly careful not to read wrong interpretations into what we see. It will not do, for example, to say that children are born thieves because they show themselves at first serenely indifferent to the distinction of *meum* and *tuum*, and are inclined to help themselves to other children's toys, and so forth. To repeat, what we have to inquire is whether children by their instinctive inclinations are contra-moral, that is, predisposed to what, if persevered in with reflexion, we call immorality or vice.

Here we cannot do better than touch on that group of feelings and dispositions which can be best marked off as anti-social since they tend to the injury of others, such as anger, envy, and cruelty.

The most distant acquaintance with the first years of human life tells us that young children have much in common with the lower animals. Their characteristic passions and impulses are centred in self and the satisfaction of its wants. What is better marked, for example, than the boundless greed of the child, his keen desire to appropriate and enjoy whatever presents itself, and to resent others' participation in such enjoyment? For some time after birth the child is little more than an incarnation of appetite which knows no restraint, and only yields to the undermining force of satiety.

The child's entrance into social life through a growing consciousness of the existence of others is marked by much fierce opposition to their wishes. His greed, which at the outset was but the expression of a vigorous nutritive impulse, now takes on more of a contra-moral aspect. The removal of the feeding-bottle before full satisfaction has been attained is, as we know, the occasion for one of the most impressive utterances of the baby's 'will to live,' and of its resentment of all human checks to its native impulses. In this outburst we have the first rude germ of that defiance of control and of authority of which I shall have to say more by-and-by.

In another way, too, the expansion of the infant's consciousness through the recognition of others widens the terrain of greedy impulse. For ugly envy commonly has its rise in the perception of another child's consumption of appetite's dainties.

Here, it is evident, we are still at the level of the animal. A dog is passionately greedy like the child, will fiercely resent any interference with the satisfaction of its appetite, and will be envious of another and more fortunately placed animal.

Much the same concern for self and opposition to others' having what the child himself desires shows itself in the matter of toys and other possessions of interest. A child

is apt not only to make free with another child's toys, but to show the strongest objection to any imitation of this freedom, often displaying a dog-in-the-manger spirit by refusing to lend what he himself does not want. Not only so, he will be apt to resent another child's having toys of his own. This envy of other children's possessions is often wide and profound.

As the social interests come into play so far as to make caresses and other signs of affection sources of pleasure to the child, the field for envy and its 'green-eyed' offspring, jealousy, is still more enlarged. As is well known, an infant will greatly resent the mother's taking another child into her arms.

Here, again, we are at the level of the lower animals. They, too, as our dogs and cats can show us, can be envious not only in the matter of eatables, but in that of human caressings, and even of possessions—witness the behaviour of two dogs when a stick is thrown into the water.

Full illustrations of these traits of the first years of childhood are not needed. We all know them. M. Perez and others have culled a sufficient collection of examples.[1]

Out of all this unrestrained pushing of appetite and desire whereby the child comes into rude collision with others' wants, wishes and purposes, there issue the well-known passionateness, the angry outbursts, and the fierce quarrellings of the child. These fits of angry passion or temper are among the most curious manifestations of childhood, and deserve to be studied with much greater care than they have yet received.

The outburst of rage as the imperious little will feels itself suddenly pulled up has in spite of its comicality something impressive. Hitting out right and left, throwing things down on the floor and breaking them, howling, wild agitated movements of the arms and whole body, these

[1] See for example Perez, *The First Three Years of Childhood*, p. 66 ff.; and *L'Education dès le berceau*, chap. vi.

are the outward vents which the gust of childish fury is apt to take. Preyer observed one of these violent explosions in the seventeenth month. The outburst tends to concentrate itself in an attack on the offender, be this even the beloved mamma herself. Darwin's boy at the age of two years three months became a great adept at throwing books, sticks, etc., at any one who offended him.[1] But almost anything will do as an object of attack. A child of four on being crossed would bang his chair, and then proceed to vent his displeasure on his unoffending toy lion, banging him, jumping on him, and, as anti-climax, threatening him with the loss of his dinner. Hitting is in some cases improved upon by biting. The boy C. was for some time vigorously mordant in his angry fits. Another little boy would, under similar circumstances, bite the carpet.

Here we have expressive movements which are plainly brutal, which assimilate the aspect of an angry child to that of an infuriated animal. The whole outward attitude is one of fierce reckless assault. The insane, we are told, manifest a like wildness of attack in fits of anger, smashing windows, etc., and striking anybody who happens to be at hand.

Yet there are other characteristics of this childish anger. It has its wretched aspect. There is keen suffering in these early experiences of thwarted will and purpose. A little boy, rather more than a year old, used when crossed to throw himself on the floor and bang the back of his head; and his brother, when fourteen months old, would similarly throw himself on the floor, bang the back of his head, biting the carpet as before mentioned. This act of throwing oneself on the floor, which is common about this age and is apparently quite instinctive, is the expression of the utter *dejection* of misery. C.'s attitude when crossed, gathered

[1] Darwin notes that all his boys did this kind of thing, whereas his girls did not (*Mind*, ii., p. 288). My own observations agree with this. A small boy has more of savage attack than a small girl.

into a heap on the floor, was eloquent of this infantile despair. Such suffering is the immediate outcome of thwarted purpose, and must be distinguished from the moral feeling of shame which often accompanies it.

Such stormy outbursts vary no doubt from child to child. Thus C.'s sister in her angry moments did not bite or roll on the floor, but would dance about and stamp. Some children show little if anything of this savage furiousness. Among those that do show it, it is often a temporary phenomenon only.

This anger, it is to be noted, is due to check, and would show itself to some extent even if there were no intervention of authority. Thus a child will become angry, resentful, and despairingly miserable if another child gets effective hold of something which he wants to have. Yet it is undoubtedly true, as we shall see, that these little storms are most frequently called up by the imposition of authority, and are a manifestation of what we call a defiant attitude.

This slight examination may suffice to show that with the child self, its appetites, its satisfactions, are the centre of its existence, the pivot on which its action turns. I do not forget the real and striking differences here, the specially brutal form of boys' anger as compared with that of girls, the partial atrophy of some of these impulses, *e.g.*, jealousy, in the more gentle and affectionate type of child. Yet there seems to be little doubt that these are among the commonest and most pronounced characteristics of the first years.

Evolution will, no doubt, help us to understand much of this. If the order of development of the individual follows and summarises that of the race, we should expect the child to show a germ at least of the passionateness, the quarrelsomeness of the brute and of the savage before he shows the moral qualities distinctive of civilised man. That he often shows so close a resemblance to the savage and to the brute suggests how little ages of civilised life with its

suppression of these furious impulses have done to tone down the ancient and carefully transmitted instincts. The child at birth, and for a long while after, may then be said to be the representative of wild untamed nature, which it is for education to subdue and fashion into something higher and better.

At the same time the child is more than this. In this first clash of his will with another's he knows more than the brute's sensual fury. He suffers consciously, he realises himself in his antagonism to a world outside him. It is probable, as I have pointed out before, that even a physical check bringing pain, as when the child runs his head against a wall, may develop this consciousness of self in its antagonism to a not-self. This consciousness reaches a higher phase when the opposing force is distinctly apprehended as another will. Self-feeling, a germ of the feeling of 'my worth,' enters into this early passionateness and differentiates it from a mere animal rage. The absolute prostration of infantile anger seems to be the expression of this keen consciousness of rebuff, of injury.

While, then, these outbursts of savage instinct in children are no doubt ugly, and in their direction contra-moral, they must not hastily be pronounced wholly bad and wicked. To call them wicked in the full sense of that term is indeed to forget that they are the swift reactions of instinct which have in them nothing of reflexion or of deliberation. The angry child venting his spite in some wild act of violence is a long way from a man who knowingly and with the consent of his will retaliates and hates. The very fleeting character of the outbreak, the rapid subsidence of passion and transition to another mood, show that there is here no real *malice prepense*. These instincts will, no doubt, if they are not tamed, develop later on into truly wicked dispositions; yet it is by no means a small matter to recognise that they do not amount to full moral depravity.

On the other hand, we have seen that we do not render complete justice to these early manifestations of angry passion if we class them with those of the brute. The child in these first years, though not yet human in the sense of having rational insight into his wrong-doing, is human in the sense of suffering through consciousness of an injured self. This reflective element is not yet moral; the sense of injury may turn by-and-by into lasting hatred. Yet it holds within itself possibilities of something higher. But of this more when we come to envisage the child in his relation to authority.

The same predominance of self, the same kinship with the unsocial brute which shows itself in these germinal animosities, is said to reappear in the insensibility or unfeelingness of children. The commonest charge against children from those who are not on intimate terms with them, and sometimes, alas, from those who are, is that they are heartless and cruel.

That children often appear to the adult as unfeeling as a stone, is, I suppose, incontestable. The troubles which harass and oppress the mother leave her small companion quite unconcerned. He either goes on playing with undisturbed cheerfulness, or he betrays a momentary curiosity about some circumstance connected with the affliction which is worse than the absorption in play through its tantalising want of any genuine feeling. A brother or a sister may be ill, but if the vigorous little player is affected at all, it is only through the loss of his companion, if this is not more than made up for by certain advantages of the solitary situation. If the mother is ill, the event is interesting merely as supplying him with new treats. A little boy of four, after spending half an hour in his mother's sick-room, coolly informed his nurse: 'I have had a very nice time, mamma's ill!' The order of the two statements is significant of the child's mental attitude towards others' sufferings. If his faithful nurse

has her face bandaged, his interest in her torments does not go beyond a remark on the 'funniness' of her new appearance.

When it comes to the bigger human troubles this want of fellow-feeling is still more noticeable. Nothing is more shocking to the adult observer of children than their coldness and stolidity in presence of death. While a whole house is stricken with grief at the loss of a beloved inmate the child is wont to preserve his serenity, being affected at most by a feeling of awe before a great mystery. Even the sight of the dead body does not always excite grief. Mrs. Burnett in her interesting reminiscences of childhood has an excellent account of the feelings of a sensitive and refined child when first brought face to face with death. In one case she was taken with fearsome longing to touch the dead body, so as to know what 'as cold as death' meant, in another, that of a pretty girl of three with golden brown eyes and neat small brown curls, she was impressed by the loveliness of the whole scene, the nursery bedroom being hung with white and adorned with white flowers. In neither case was she sorry, and could not cry though she had imagined beforehand that she would.[1] Even in this case, then, where so much feeling was called forth, commiseration for the dead companion seems to have been almost wholly wanting.[2]

No one, I think, will doubt that judged by our standards children are often profoundly and shockingly callous. But the question arises here, too, whether we are right in applying our grown-up standards. It is one thing to be indifferent with full knowledge of suffering, another to be indifferent in the sense in which a cat might be said to be so at the spectacle of your falling or burning your finger. We are apt to assume that children know our sufferings instinctively, or at least that they can always enter into them when they are openly expressed. But this

[1] *The One I Knew Best*, chap. x.

[2] *Cf.* Paola Lombroso, *op. cit.*, p. 84 f.

assumption is highly unreasonable. A large part of the manifestation of human suffering is unintelligible to a little child. He is oppressed neither by our anxieties nor by our griefs, just because these are to a large extent beyond his sympathetic comprehension.

We must remember, too, that there are moods and attitudes of mind favourable and unfavourable to sympathy. None of us are uniformly and consistently compassionate, and children are frequently the subject of moods which exclude the feeling. They are impelled by their superabundant nervous energy to wild romping activity, they are passionately absorbed in their play, they are intensely curious about the many new things they see and hear of. These dominant impulses issue in mental attitudes which are indifferent to the spectacle of others' troubles.

Again, where an appeal to serious attention is given, a child is apt to spy something besides the sadness. The little girl already spoken of saw the prettiness of the death-room rather than its mournfulness. A teacher once told her class of the death of a class-mate. There was of course a strange stillness, which one little girl presently broke with a loud laugh. The child is said to have been by no means unemotional, and the laugh not a 'nervous' one. The odd situation—the sudden hush of a class—had affected childish sensibilities more than the distressing announcement.

One other remark by way of saving clause here. It is by no means true that children are always unaffected by the sad and sorrowful things in life. The first acquaintance with death, as we know from a number of published reminiscences, has sometimes shaken a child's whole being with an infinite, nameless sense of woe.[1]

[1] See, for example, the record of the impression produced by a parent's death left by Steele in the *Tatler*, and George Sand in her autobiography. No doubt, as Tolstoi's reminiscences tell us, a good deal of straining after emotion and vain affectation may mingle with such childish sorrow.

Children, says the misopædist, are not only unfeeling where we look for sympathy and kindness, they are positively unkind, their unkindness amounting to cruelty. What we mean by the brute in the child is emphatically this cruelty. By cruelty is here understood cold-blooded infliction of pain. "Cet âge," wrote La Fontaine of childhood, "est sans pitié." The idea that children, especially boys, are cruel in this sense is, I think, a common one.

This cruelty will now and again show itself in relation to other children. One of the trying situations of early life is to find oneself supplanted by the arrival of a new baby. Children, I have reason to think, are, in such circumstances, capable of coming shockingly near to a feeling of hatred. I have heard of one little girl who was taken with so violent an antipathy to a baby which she considered outrageously ugly as to make attempts to smash its head, much as she would no doubt have tried to destroy a doll which had become unsightly to her. The baby, it is comforting to know, was not really hurt by this precocious explosion of infanticidal impulse—perhaps the smashing was more than half a "pretence"—and the little girl has since grown up to be a kind-hearted woman.

Such cruel-looking handling of smaller infants is probably rare. More common is the exhibition of the signs of cruelty in the child's dealings with animals. It is of this, indeed, that we mostly think when we speak of a child's cruelty.

At first nothing seems clearer than the evidence of malicious intention in a child's treatment of animals. The little girl M. when just a year old would lift two kittens by the neck and try to stamp on them. The little girl described by Miss Shinn would when two years old run up to a dog and jerk his ear till he snapped at her, and, as related above, once thrust her hand into a bush to seize pussy, minding not the scratches.[1] Do we not see in this mauling of

[1] *Notes on the Development of a Child*, pt. ii., p. 149 f.

animals, even when it brings the child himself pain, evidences of a rooted determination to plague, and of a fierce delight in plaguing?

The question of the innermost nature of human cruelty is too difficult a one to be discussed here. I will only say that whatever the cruelty of adults may be children's so-called cruelty towards animals is very far from being a pure delight in the sight of suffering. The torments to which a child will subject a long-suffering cat are, I suspect, due not to a clear intention to inflict pain, but to the childish impulse to hold, possess, and completely dominate the pet animal. He feels he must have the pet, no matter at what cost to himself: of the cost to his victim he does not think. The stamping on the kittens was perhaps merely a childish way of holding them fast. Such actions are a manifestation of that odd mixture of sociability and love of power which makes up a child's attachment to the lower animals.

The case of destructive cruelty, as when a small boy crushes a fly, is somewhat different. Let me give a well-observed instance. A little boy of two years and two months, "after nearly killing a fly on the window-pane, seemed surprised and disturbed, looking round for an explanation, then gave it himself: 'Mr. Fy dom (gone) to by-by'. But he would not touch it or another fly again—a doubt evidently remained and he continued uneasy about it." Here we have, I think, the instinctive attitude of a child towards the outcome of his destructive impulse. This impulse, which, as we know, becomes more clearly destructive when experience has taught what result will follow, is not necessarily cruel in the sense of including an idea of the animal's suffering. Animal movement, especially that of tiny things, has something exciting and provoking about it. The child's own activity and the love of power which is bound up with it impel him to arrest the movements of small manageable things. This is the meaning,

I suspect, of the fascination of the fly on the window-pane, and of tiny creeping things, and especially, perhaps, of the worm with its tangle of wriggling movement. The cat's prolonged chase of the mouse, into which, as we have seen, something of a dramatic make-believe enters, probably owes its zest to a like delight in the realisation of power.

Along with this love of power there goes often something of a child's fierce untamable curiosity. A boy of four, finding that his mother was shocked at hearing him express a wish to see a pigeon which a dog had just killed, remarked: 'Is it rude to look at a dead pigeon? I want to see where its blood is.' I am disposed to think that the crushing of flies and moths and the pulling of worms to pieces and so forth are prompted by this curiosity. The child wants to see where the blood is, what the bones are like, how the wings are fastened in, and so forth. Perez tells of a little boy, afterwards an artist, who used to crush flies between the leaves of a book for the sake of the odd designs resulting.[1] By such various lines of concentrated activity does the child-mind overlook the suffering which it causes.

A like combination of love of power and of curiosity seems to underlie other directions of childish destructiveness, as the breaking of toys and the pulling of flowers to pieces. In certain cases, as in C.'s annihilation of a garden of peonies, the love of power or effect may overtop and outlive the curiosity, becoming a sort of iconoclastic fury.[2]

I think, then, that we may give the little child the benefit of the doubt, and not assign his rough handling of sentient things to a wish to inflict pain, or even to an indifference

[1] *L'Art et la Poésie chez l'Enfant*, p. 60.

[2] Ruskin tells us that when a child he pulled flowers to pieces 'in no morbid curiosity, but in admiring wonder' (*Præterita*, 88). Goethe gives an amusing account of his wholesale throwing of crockery out of the window inspired by the delight of watching the droll way in which it was smashed on the pavement.

to pain of which he is clearly aware. Wanton activity, the curiosity of the experimenter, and delight in showing one's power and producing an effect, seem sufficient to explain most of the alleged brutality of the first years.

Probably the same considerations apply to those milder forms of annoyance which children are apt to practise on other people and animals alike. That a child early develops a decided taste for 'teasing' is, I think, certain. But whether carried out by word or by action this early teasing seems to be in the main the outcome of the love of power, the impulse to impose one's will on other creatures. We must remember that these wee beings feel themselves so subject to others' power that they are very naturally driven to use all opportunities of shaking off the shackles, and exercising for themselves a little domination. Cruelty, that is the impulse to inflict pain, where it appears, grows up later, and though it has its roots in this love of power ought to be distinguished from it.

We have now looked at one of the dark sides of the child and have found that though it is unpleasant it is not so hideous as it has been painted. Children are no doubt apt to be passionate, ferocious in their anger, and sadly wanting in consideration for others; yet it is consolatory to reflect that their savageness is not quite that of brutes, and that their selfishness and cruelty are a long way removed from a deliberate and calculating egoism.

Germs of Altruism.

It now remains to point out that there is another and counterbalancing side. If a child has his outbursts of temper he has also his fits of tenderness. If he is now dead to others' sufferings he is at another time taken with a most amiable childish concern for their happiness. In order to be just to him we must recognise both sides.

It must not be forgotten here that children are instinctively attachable and sociable in so far as they show in the

first weeks that they get used to and dependent on the human presence and are miserable when this is taken from them. The stopping of an infant's crying at night on hearing the familiar voice of its mother or nurse shows this.

In this instinct of companionship there is involved a vague inarticulate sympathy. Just as the attached dog may be said to have in a dim fashion a feeling of oneness with its master, so the child. The intenser realisation of this oneness comes in the case of the dog and of the child alike after separation. The wild caressing leaps of the quadruped are matched by the warm embracings of the little biped. Only that here, too, we see in the child traces of a deeper human consciousness. A girl of thirteen months was separated from her mother during six weeks. On the mother's return she was speechless, and for some time could not bear to leave her restored companion for a minute. The little girl M. when nearly seventeen months old received her father after only five days' absence with special marks of tenderness, rushing up to him, smoothing and stroking his face and giving him all the toys in the room.

This sense of joining on one's existence to another's is not sympathy in its highest form, that is, a conscious realisation of another's feelings, but it is a kind of sympathy after all, and may grow into something better. This we may see in the return of the childish heart to its resting place after the estrangement occasioned by 'naughtiness' The relenting after passion, the reconciliation after punishment, are these not the experiences which help to raise the dumb animal sympathy of the first months into a true human sense of fellowship? But this part of the development of sympathy belongs to another chapter.

Sympathy, it has been said, is a kind of imitation, and this is strikingly illustrated in its early forms. A dog will howl piteously in response to another dog's howl: similarly a child of nine and a half months has been known to cry violently when his mother or father pretended to cry.

One curious manifestation of this early imitative sympathy is the impulse to do what the mother does and to be what she is. Much of early imitative play shows this tendency. It is more than a cold distant copying of another's doings: it is full of the warmth of attachment, and it is entered on as a way of getting nearer to the object of attachment. Out of this, too, there springs the germ of a higher sympathy. It will be remembered that Laura Bridgman bound the eyes of her doll with a bandage similar to the one she herself wore. Through this sharing in her own experience the doll became more a part of herself. Conversely, a child, on finding that her mother's head ached, began imitatively to make-believe that her own head was hurt. Sympathy rests on community of experience, and it is a curious fact that a child, before he can fully sympathise with another's trouble and make it his own by the sympathetic process itself, should thus try by a kind of childish acting to realise this community of experience.

From this imitative acting of another's trouble, so as to share in it, there is but a step to a direct sympathetic apprehension of it. How early a genuine manifestation of concern about another's suffering begins to show itself it is almost impossible to say. Children probably differ greatly in this respect. I have, however, one case which is so curious that I cannot forbear to quote it. It reaches me, I may say, by a thoroughly trustworthy channel.

A baby aged one year and two months was crawling on the floor. An elder sister, Katherine, aged six, who was working at a wool mat could not get on very well and began to cry. Baby looked up and grunted, 'on! on!' and kept drawing its fingers down its own cheeks. Here the aunt called Miss Katherine's attention to baby, a device which merely caused a fresh outburst of tears; whereupon baby proceeded to hitch itself along to Katherine with many repetitions of the grunts and the mimetic finger-movements. Katherine, fairly overcome

by this, took baby to her and smiled; at which baby began to clap its hands and to crow, tracing this time the course of the tears down its sister's cheeks.

This pretty nursery-picture certainly seems to illustrate a rudiment of genuine fellow-feeling. Similarly it is hard not to recognise the signs of a sincere concern when a child of two runs spontaneously and kisses the place that is hurt, even though it is not to be doubted that the graceful action has been learnt through imitation.

Very sweet and sacred to the mother are the first clear indications of the child's concern for herself. These are sporadic, springing up rarely, and sometimes, as it looks to us, capriciously. A temporary removal due to illness is a common occasion for the appearance of a deeper tenderness in the young heart. A little boy of three spontaneously brought his story-book to his mother when she lay in bed ill; and the same child used to follow her about after her recovery with all the devotion of a little knight.

Valuable and entertaining, too, are the first attempts of the child at consolation. A little German girl aged two and a half who had just lost her brother seemed very indifferent for some days. She then began to reflect and to ask about her playmate. On seeing her mother's distress she proceeded in truly childish fashion to comfort her; 'Never mind, mamma, you will get a better boy. He *was* a ragamuffin' ('Er *war* ein Lump'). The co-existence of an almost barbarous indifference for the dead brother with practical sympathy for the living mother is characteristic here.[1]

A deeper and more thoughtful sympathy comes with years and reflective power. Thought about the overhanging terror, death, is sometimes the awakener of this. 'Are you old, mother?' asked a boy of five. 'Why?' she answered. 'Because,' he continued, 'the older you are the nearer you

[1] A pretty example of such childish consolation is given by P. Lombroso, *op. cit.*, p. 94.

are to dying.' This child had once before said he hoped his mother would not die before him, and this suggests that thought of his own forlorn condition was in his mind here: yet we may hope that there was something of disinterested concern too.[1]

This early consideration frequently takes the practical form of helpfulness. A child loves nothing better than to assist you in little household occupations; and though love of activity and the pleasure of imitating no doubt count for much in these cases, we can, I think, safely set down something to the wish to be of use. This inference seems justified by the fact that such practical helpfulness is not always imitative. A little boy of two years and one month happened to overhear his nurse say to herself: 'I wish that Anne would remember to fill the nursery boiler'. "He listened, and presently trotted off; found the said Anne doing a distant grate, pulled her by the apron, saying: 'Nanna, Nanna!' (come to nurse). She followed, surprised and puzzled, the child pulling all the way, till, having got her into the nursery, he pointed to the boiler, and added: 'Go dare, go dare,' so that the girl comprehended and did as he bade her."

With this practical 'utilitarian' sympathy there goes a quite charming wish to give pleasure in other ways. A little girl when just a year old was given to offering her toys, flowers, and other pretty things to everybody. Generosity is as truly an impulse of childhood as greediness, and it is odd to observe their alternate play. At an early age, too, a child tries to make himself agreeable by pretty and dainty courtesies. A little girl, aged three and a quarter, petitioned her mother this wise: 'Please, mamma, will you pin this with the greatest pleasure?' Regard for another's feelings was surely never more charmingly expressed than in the prayer that in rendering this little service the helper should not only be willing, but glad.

[1] *Cf.* P. Lombroso, *op. cit.*, p. 87.

Just as there are these sporadic growths of affectionate concern and wish to please in relation to the mother and others, so there is ample evidence of kindness to animals. The charge of cruelty in the case of little children is, indeed, seen to be a gross libel as soon as we consider their whole behaviour towards the animal world.

I have touched above on the vague alarms which this animal world has for tiny children. It is only fair to them to say that these alarms are for the most part transitory, giving place to interest, attachment and fellow-feeling. In a sense a child may be said to belong to the animal community, as Mr. Rudyard Kipling's charming account of the Jungle prettily suggests. Has he not, indeed, at first more in common with the dog and cat, the pet rabbit or dormouse, than with that grown-up human community which is apt to be so preoccupied with things beyond his understanding, and in many cases, at least, to wear so unfriendly a mien? We must remember, too, that children as a rule know nothing of the prejudices, of the disgusts, which make grown people put animals so far from them. The boy C. was nonplussed by his mother's horror of the caterpillar. A child has been known quite spontaneously to call a worm 'beautiful'.

As soon as the first fear of the strangeness is mastered a child will take to an animal. A little boy of fifteen months quickly overcame his fright at the barking of his grandfather's dog, and began to share his biscuits with him, to give him flowers to smell, and to throw stones for his amusement. This mastery of fear by attachment takes a higher form when later on the child will stick to his dumb companion after suffering from his occasional fits of temper. Ruskin in his reminiscences gives a striking example of this triumph of attachment over fear. When five years old, he tells us, he was taken by the serving-man to see a favourite Newfoundland dog in the stable. The man rather foolishly humoured the child's wish to kiss Leo (the dog) and lowered

him so that his face came near the animal's. Hereupon the dog, who was dining, resenting the interruption of his meal, bit out a piece of the boy's lip. His only fear after this was lest the dog should be sent away.[1]

Children will further at a quite early age betray the germ of a truly humane feeling towards animals. The same little boy that bravely got over his fear of the dog's barking would, when nineteen months old, begin to cry on seeing a horse fall in the street. More passionate outbursts of pity are seen at a later age. A boy five years and nine months had a kitten of which he was very fond. One day, after two or three days' absence from the house, it came back with one foot much mutilated and the leg swollen, evidently not far from dying. "When (writes the mother) he saw it he burst into uncontrollable tears and was more affected than I have ever seen him. The kitten was taken away and drowned, and ever since (a month) he has shown great reluctance in speaking of it, and never mentions it to any one but those who saw the cat at the time. He says it is too sad to tell any one of it." The boy C. when only four was moved to passionate grief at the sight of a dead dog taken from a pond.

The indignation of children at the doings of the butcher, the hunter and others, shows how deeply pitiful consideration for animals is rooted in their hearts. This is one of the most striking manifestations of the better side of child-nature and deserves a chapter to itself.

It is sometimes asked why children should take animals to their bosoms in this fashion and lavish so much fellow-feeling on them. It seems easy to understand how they come to choose animals, especially young ones, as play-mates, and now and again to be ruthlessly inconsiderate of their comfort in their boisterous gambols; but why should they be so affected by their sufferings and champion their rights so sturdily? I think the answer is not hard to find.

[1] *Præterita*, pp. 105-6.

The sympathy and love which the child gives to animals grow out of a sort of blind gregarious instinct, and this again seems to be rooted in a similarity of position and needs. As M. Compayré well says on this point: "He (the child) sympathises naturally with creatures which resemble him on so many sides, in which he finds wants analogous to his own, the same appetite, the same impulses to movement, the same desire for caresses. To resemble is already to love."[1] I think, however, that a deeper feeling comes in from the first and gathers strength as the child hears about men's treatment of animals, I mean a sense of a common danger and helplessness face to face with the human 'giant'. The more passionate attachment of the child to the animal is the outcome of the wide-spread instinct of helpless things to band together. A mother once remarked to her boy, between five and six years old: 'Why, R., I believe you are kinder to the animals than to me'. 'Perhaps I am,' he replied, 'you see they are not so well off as you are.' May there not be something of this sense of banding and mutual defence on the animals' side too? The idea does not look so absurd when we remember how responsive, how forbearing, how ready to defend, a dog will often show itself towards a 'wee mite' of a child. This same instinct to stand up for the helpless inferior shows itself in children's attitude towards servants when scolded and especially when dismissed.[2]

The same outpourings of affection are seen in the dealings of children with their toy babies and animals. Allowing for occasional outbreaks of temper and acts of violence, the child's intercourse with his doll and his toy 'gee gee' is a wonderful display of loving solicitude; a solicitude which is at once tender and corrective, and has the enduring constancy of a maternal instinct. No one can watch the care given to a doll, the wide-ranging efforts

[1] *Op. cit.*, p. 108.

[2] Illustrations are given by Paola Lombroso, *op. cit.*, p. 96 f.

to provide for its comfort, to make it look pretty, and to get it to behave nicely, and note the misery when it is missing, without acknowledging that in this plaything humanised by childish fancy, and brought by daily habit into the warmest intimacy of daily companionship, we have the focal meeting-point of the tender impulses of the child.

Lastly, the reader may be reminded that childish kindness and pitifulness extend to what look to us still less deserving objects in the inanimate world. The manifestations of pity for the falling leaves and for the stones condemned to lie always in one place, referred to above, show how quick childish feeling is to detect what is sad in the look of things. Children have even been known to apply the commiserating vocable 'poor' to a torn paper figure, and to a bent pin. It seems fair to suppose that here, too, the more tender heart of the child saw occasion for pity.

It is worth noting that childish sorrow at the sufferings of things is sometimes so keen, that even artistic descriptions which contain a 'cruel' element are shunned. A little boy under four "is indignant (writes his mother) at any picture where an animal suffers. He has even turned against several of his favourite pictures—German Bilderbogen, because they are 'cruel,' as the bear led home with a corkscrew in his nose." The extreme manifestation of this shrinking from the representation of animal or human suffering is dislike for 'sad stories'. The unsophisticated tender heart of the child can find no pleasure in horrors which appear to be the supreme delight of many an adult reader.

Here, however, it is evident, we verge on the confines of sentimental pity. It is to be remarked that highly imaginative children shed most tears over these fictitious sufferings. Children with more matter-of-fact minds and a practical turn are not so affected. Thus a mother writes of her two girls: 'M. being the most imaginative is and

always has been much affected by sad stories, especially if read to her with dramatic inflexions of voice. From two years old upwards these have always affected her to tears, whilst P. who is really the most tender-hearted and helpful, but has little imagination, never cries at sad stories, and when four years old explained to me that she did not mind them because she knew they didn't really happen.'

It appears to me to be incontestable that in this spontaneous outgoing of fellow-feeling towards other creatures, human and animal, the child manifests something of a truly moral quality. C.'s stout and persistent championship of the London horses against the oppression of the bearing-rein had in it something of righteous indignation. The way in which his mind was at this period pre-occupied with animal suffering suggests that his sympathies with animals were rousing the first fierce protest against the wicked injustice of the world. The boy De Quincey got this first sense of the existence of moral evil in another way through his sympathy with a sister who, rumour said, had been brutally treated by a servant. He could not, he tells us, bear to look on the woman. It was not anger. "The feeling which fell upon me was a shuddering horror as upon a first glimpse of the truth that I was in a world of evil and strife."[1]

Children's Lies.

We may now turn to the other main charge against children, that of lying. According to many, children are in general accomplished little liars, to the manner born and equally adept with the mendacious savage. Even writers on childhood, by no means prejudiced against them, lean to the view that untruth is universal among children, and to some extent at least innate.[2]

[1] *Autobiographical Sketches*, chap. i.

[2] See the quotations from Montaigne and Perez, given by Compayré, *op. cit.*, p. 309 f.

Here, surely, there is need of discrimination. A lie connotes, or should connote, an assertion made with full consciousness of its untruth, and in order to mislead. It may well be doubted whether little children have so clear an apprehension of what we understand by truth and falsity as to be liars in this full sense. Much of what seems shocking to the adult unable to place himself at the level of childish intelligence and feeling will probably prove to be something far less serious. It is satisfactory to note a tendency to take a milder and more reasonable view of this infantile fibbing; and in what follows I can but follow up the excellent recent studies of Dr. Stanley Hall, and M. Compayré.[1]

It is desirable to inspect a little more closely the various forms of this early mendacity. To begin with those little ruses and dissimulations which, according to M. Perez, are apt to appear almost from the cradle in the case of certain children, it is plainly difficult to bring them into the category of full-fledged lies. When, for example, a child wishing to keep a thing hides it, and on your asking for it holds out empty hands, it would be hard to name this action a lie, even though there is in it a germ of deception. We must remember that children have an early developed instinct to secrete things, and the little dissimulation in these actions may be a mere outcome of this hiding propensity, and the accompanying wish that you should not get the hidden thing. Refusals to tell secrets, or as C. called them 'private secrets' (a fine distinction), show the same thing. A child when badgered is most jealous in guarding what he has been told, or what his fancy has made a secret. The little ruses or 'acted lies' to which I am now referring seem at the worst to be attempts to put you off the scent in what is regarded as a private matter, and to have the minimum of intentional

[1] Stanley Hall, "Children's Lies," *Amer. Journal of Psychology*, 1890; Compayré, *op. cit.*, p. 309 ff.

deception. As Mrs. Fry has well shown, this childish passion for keeping things secret may account for later and more serious-looking falsehoods.[1]

More distinct marks of mendacity appear when the child comes to use language and proffers statements which if he reflected he might know to be false. It may readily be thought that no child who has the intelligence to make statements at all could make false ones without some little consciousness of the falsity. But here I suspect we judge harshly, applying adult tests to cases where they are inappropriate. Anybody who has observed children's play and dramatic talk, and knows how readily and completely they can imagine the non-existent so as to lose sight of the existent, will be chary, when talking of them, of using the word lie. There may be solemn sticklers for truth who would be shocked to hear the child when at play saying, 'I am a coachman,' 'Dolly is crying,' and so forth. But the discerning see nothing to be alarmed at here. Similarly when a little girl of two and a half after running on with a pretty long rigmarole of sounds devoid of all meaning said: "It's because you don't understand me, papa". Here the love of mystery and secrecy aided by the dramatic impulse *made* the nonsense talk real talk. The wee thing doubtless had a feeling of superiority in talking in a language which was unintelligible to her all-wise papa.

On much the same level of moral obliquity are those cases where a child will say the opposite of what he is told, turning authoritative utterances upside down. A quaint instance is quoted by Compayré from Guyau. Guyau's little boy (age not given) was overheard saying to himself: "Papa parle mal, il a dit *sevette*, bébé parle bien, il dit *serviette*". Such reversals are a kind of play too: the child not unnaturally gets tired now and then of being told that he is wrong, and for the moment imagines himself right and his elders wrong, immensely enjoying the idea.

[1] *Uninitiated* ('A Discovery in Morals').

A graver-looking case presents itself when an 'untruth' is uttered in answer to a question. C. on being asked by his mother who told him something, answered, 'Dolly'. 'False, and knowingly false,' somebody will say, especially when he learns that the depraved youngster instantly proceeded to laugh. But let us look a little closer. The question had raised in C.'s small mind the idea that somebody had told him. This is a process of 'suggestion' which, as we shall see presently, sways a child's mind as it sways that of the hypnotised adult. And there close by the child was dolly, and the child's make-believe includes, as we all know, much important communication with dolly. What more natural than that the idea should at once seize his imagination? But the laugh? Well I am ready to admit that there was a touch of playful defiance here, of young impishness. The expression on the mother's face showed him that his bold absurd fancy had produced its half-startling, half-amusing effect; and there is nothing your little actor likes more than this after-effect of startling you. But more, it gave him at the same instant a glimpse of the outside look of his fancy, of the unreality of the untruth; and the laugh probably had in it the delight of the little rebel, of the naughty rogue who loves now and then to set law at defiance.

A quick vivid fancy, a childish passion for acting a part, these backed by a strong impulse to astonish, and a turn for playful rebellion, seem to me to account for this and other similar varieties of early misstatement. Naughty they no doubt are in a measure; but is it not just that playing at being naughty which has in it nothing really bad, and is removed *toto cælo* from downright honest lying? I speak the more confidently as to C.'s case as I happen to know that he was in his serious moods particularly, one might almost say pedantically, truthful.

A somewhat different case is that where the vivid fancy underlying the misstatement may be supposed to lead to a

measure of self-deception. When, for example, a child wants to be carried and says, "My leg hurts me and my foot too just here, I can't walk, I can't, I can't,"[1] it is possible at least that he soon realises the tiredness he begins by half feigning. The Worcester collection gives an example. "I was giving some cough syrup, and E (aged three years two months) ran to me saying: 'I am sick too, and I want some medicine'. She then tried to cough. Every time she would see me taking the syrup bottle afterwards, she would begin to cough. The syrup was very sweet." This looks simply awful. But what if the child were of so imaginative a turn that the sight of the syrup given to the sick child produced a more or less complete illusion of being herself sick, an illusion strong enough to cause the irritation and the cough? The idea may seem far-fetched, but deserves to be considered before we brand the child with the name liar.

The vivid fanciful realisation which in this instance was sustained by the love of sweet things is in many cases inspired by other and later developed feelings. How much false statement—and that not only among little children—is of the nature of exaggeration and directed to producing a strong effect. When, for example, the little four-year-old draws himself up and shouts exultantly, "See, mamma, how tall I am, I am growing so fast, I shall soon be a giant," or boasts of his strength and tells you the impossible things he is going to do, the element of braggadocio is on the surface, and imposes on nobody.

No doubt these propensities, though not amounting in the stage of development now dealt with to full lying, may if unrestrained develop into this. An unbridled fancy and strong love of effect will lead an older child to say what he knows, vaguely at least, at the moment to be false in order to startle and mystify others. Such exaggeration of the impulses is distinctly abnormal, as may be

[1] See P. Lombroso, *op. cit.*, p. 74.

seen by its affinity to what we can observe in the case of the insane. The same is true of the exaggeration of the vain-glorious or 'showing off' impulses, as illustrated for example in the cases mentioned by Dr. Stanley Hall of children who on going to a new town or school would assume new characters which were kept up with difficulty by means of many false pretences.[1]

A fertile source of childish untruth, especially in the case of girls, is the wish to please. Here we have to do with very dissimilar things. An emotional child who in a sudden fit of tenderness for mother, aunt or teacher gushes out, 'Oh I *do* love you,' or 'What sweet lovely eyes you have,' or other pretty flattery, may be sincere for the moment, the exaggeration being indeed the outcome of a sudden ebullition of emotion. There is more of acting and artfulness in the flatteries which take their rise in a calculating wish to say the nice agreeable thing. Some children are, I believe, adepts at these amenities. Those in whom the impulse is strong and dominant are presumably those who in later years make the good society actors. In all this childish simulation and exaggeration we have to do with the germs of what may become a great moral evil, insincerity, that is falsity in respect of what is best and ought to be sacred. Yet this childish flattery, though undoubtedly a mild mendacity, is a most amiable mendacity through its charming motive—always supposing that it is a pure wish to please, and is not complicated with an *arrière pensée*, the hope of gaining some favour from the object of the devotion. Perhaps there is no variety of childish fault more difficult to deal with; if only for the reason that in checking the impulse we are robbing ourselves of the sweetest offerings of childhood.

The other side of this wish to please is the fear to give offence, and this, I suspect, is a fertile source of childish prevarication. If, for example, a child is asked

[1] Article "Children's Lies," p. 67.

whether he does not like or admire something, his feeling that the questioner expects him to say 'Yes' makes it very hard to say 'No'. Mrs. Burnett gives us a reminiscence of this early experience. When she was less than three, she writes, a lady visitor, a friend of her mother, having found out that the baby newly added to the family was called Edith, remarked to her: 'That's a pretty name. My baby is Eleanor. Isn't that a pretty name?' On being thus questioned she felt in a dreadful difficulty, for she did not like the sound of 'Eleanor,' and yet feared to be rude and say so. She got out of it by saying she did not like the name as well as 'Edith'.

These temptations and struggles, which may impress themselves on memory for the whole of life, illustrate the influence of older persons' wishes and expectations on the childish mind. It is possible that we have here to do with something akin to "suggestion," that force which produces such amazing results on the hypnotised subject, and is known to be a potent influence for good or for evil on the young mind. A leading question of the form, 'Isn't this pretty?' 'Aren't you fond of me?' may easily overpower for a moment the child's own conviction super-imposing that of the stronger mind. Such passive utterance coming from a mind over-ridden by another's authority is not to be confounded with conscious falsehood.

This suggestion often combines with other forces Here is a good example. A little American girl, sent into the oak shrubbery to get a leaf, saw a snake, which so frightened her that she ran home without the leaf. As cruel fate would have it she met her brothers and told them she had seen a ''sauger'. "They knew (writes the lady who recalls this reminiscence of her childhood) the difference between snakes and their habits, and, boy-like, wanted to tease me, and said ''Twas no 'sauger—it didn't have a red ring round its neck, now, did it?' My heated imagination saw just such a serpent as soon as their words

were spoken, and I declared it had a ring about 'its neck'." In this way she was led on to say that it had scars and a little bell on its neck, and was soundly rated by her brothers as a 'liar'.[1] Here we have a case of "illusion of memory" induced by suggestion acting on a mind made preternaturally sensitive by the fear from which it had not yet recovered. If there was a germ of mendacity in the case it had its source in the shrinking from the brothers' ridicule, the wish not to seem utterly ignorant about these boyish matters, the snakes. Yet who would say that such swift unseizable movements of feeling in the dim background of consciousness made the child's responses lies in the proper sense of the word?

It seems paradoxical, yet is, I believe, indisputable, that a large part of childish untruth comes upon the scene in connexion with moral authority and discipline. We shall see by-and-by that unregenerate child-nature is very apt to take up the attitude of self-defence towards those who administer law and inflict punishment. Very little children brought face to face with restraint and punishment will 'try on' these ruses. Here are one or two illustrations from the notes on the little girl M. When seventeen and a half months old she threw down her gloves when wheeled in her mail-cart by her mother. The latter picked them up and told her not to throw them away again. She was at first good, then seemed to deliberate and finally called out: 'Mamma, Bubbo' (dog). The mother turned to look, and the little imp threw her gloves away again, laughing; there was of course no dog. The fib about the dog formed part of a piece of childish make-believe, of an infantile comedy. It was hardly more when about two months later, after she had thrown down and broken her tea-things, and her mother had come up to her, she said: 'Mamma broke tea-things—beat mamma,' and proceeded to beat her. In connexion with such little child-comedies

[1] Sara E. Wiltshire, *The Christian Union*, vol. xl., No. 26.

there can be no talk of deception. They are the outcome of the childish instinct to upset the serious attitude of authority by a bit of fun.

The little stratagem begins to look more serious when the child gets artful enough to put the mother off the scent by a false statement. For example, a mite of three having in a moment of temper called her mother 'monkey,' and being questioned as to what she had said, replied: "I said I was a monkey". In some cases the child does not wait to be questioned. A little girl mentioned by Compayré, being put out by something the mother had done or said, cried: 'Nasty!' (Vilaine!) then after a significant silence, corrected herself in this wise, 'Dolly nasty' (Poupée vilaine). The skill with which this transference was effected without any violence to grammar argues a precocious art.[1]

Our moral discipline may develop untruth in another way. When the punishment has been inflicted and the governor, relenting from the brutal harshness, asks: 'Are you sorry?' or 'Aren't you sorry?' the answer is exceedingly likely to be 'No,' even though this is in a sense untrue. More clearly is this lying of obstinacy seen where a child is shut up and kept without food. Asked: 'Are you hungry?' the hardy little sinner stifles his sensations and pluckily answers 'No,' even though the low and dismal character of the sound shows that the untruth is but a half-hearted affair.

I have tried to show how a child's untruths may be more than half "playing," how when they are serious assertions they may involve a measure of self-deception, and how even when consciously false they may have their origin in excusable circumstances and feelings. In urging all this I do not wish to deny the statement that children will sometimes deliberately invent a lie from a

[1] Perez gives a similar story, only that the epithet 'vilaine' was here transferred to 'l'eau'. *L'Education dès le berceau*, p. 53.

base motive, as when a girl of three seeing her little brother caressed by her mother for some minutes and feeling herself neglected fabricated the story that 'Henri' had been cruel to the parrot.[1] Yet I am disposed to look on such mean falsehoods as exceptional if not abnormal.

There is much even yet to be done in clearing up the *modus operandi* of children's lies. How quick, for example, is a child to find out the simple good-natured people, as the servant-maid, or gardener, who will listen to his romancing and flatter him by appearing to accept it all as gospel. More significant is the fact that intentional deception is apt to show itself towards certain people only. There is many a school-boy who would think it no dishonour to say what is untrue to those he dislikes, especially by way of getting them into hot water, though he would feel it mean and base to lie to his mother or his father, and bad form to lie to the head-master. Similar distinctions show themselves in earlier stages, and are another point of similarity between the child and the savage whose ideas of truthfulness seem to be truthfulness for *my* people only. This is a side of the subject which would repay fuller inquiry.

Another aspect of the subject which has been but little investigated is the influence of habit in the domain of lying, and the formation of persistent permanent lies. The impulse to stick to an untruth when once uttered is very human, and in the case of the child is enforced by the fear of discovery. This applies not only to falsehoods foisted on persons in authority, but to those by which clever boys and girls take pleasure in befooling the inferior wits of others. In this way there grow up in the nursery and in the playground traditional myths and legends which are solemnly believed by the simple-minded. Such invention is in part the outcome of the "pleasures of the imagination". Yet it is probable that these are in all cases reinforced not

[1] Perez, *L'Education dès le berceau*, p. 54.

only by the wish to produce an effect, but by the love of power which in the child not endowed with physical prowess is apt to show itself in hood-winking and practical joking.

Closely connected with the permanence of untruths is the contagiousness of lying. The propagation of falsehood is apt to be promoted by a certain tremulous admiration for the hardihood of the lie and by the impulses of the rebel which never quite slumber even in the case of fairly obedient children. I suspect, however, that it is in all cases largely due to the force of suggestion. The falsehood boldly announced is apt to captivate the mind and hold it under a kind of spell.

This effect of suggestion in generating falsehood is very marked in those pathological or semi-pathological cases where children have been led to give false testimony. It is now known that it is quite possible to provoke an illusion of memory in certain children between the ages of six and fifteen by simply affirming something in their hearing, whether they are in the waking or in the sleeping state, so that they are ready to state that they actually saw happen what was asserted.[1]

So much as to the several manners and circumstances of childish lying. In order to understand still better what it amounts to, how much of conscious falsehood enters into it, we must glance at another and closely related phenomenon, the pain which sometimes attends and follows it.

There is no doubt that a certain number of children experience a qualm of conscience when uttering a falsehood. This is evidenced in the well-known devices by which the intelligence of the child thinks to mitigate the lie; as when

[1] M. Motet was one of the first to call attention to the forces of childish imagination and the effects of suggestion in the false testimonies of children. *Les Faux Temoignages des Enfants devant la Justice*, 1887. The subject has been further elucidated by Dr. Bérillon.

on saying what he knows to be false he adds mentally, 'I do not mean it,' 'in my mind,' or some similar palliative.[1] Such subterfuges show a measure of sensibility, for a hardened liar would despise the shifts, and are curious as illustrations of the childish conscience and its unlearnt casuistry.

The remorse that sometimes follows lying, especially the first lie, which catches the conscience at its tenderest, has been remembered by many in later life. Here is a case. A lady friend remembers that when a child of four she had to wear a shade over her eyes. One day on walking out with her mother she was looking, child-wise, sidewards instead of in front, and nearly struck a lamp-post. Her mother then scolded her, but presently remembering the eyes, said: "Poor child, you could not see well". She knew that this was not the reason, but she accepted it, and for long afterwards was tormented with a sense of having told a lie. Miss Wiltshire, who tells the story of the mythical snake, gives another recollection which illustrates the keen suffering of a child when he becomes fully conscious of falsehood. She was as a small child very fond of babies, and had been permitted by her mother to go when invited by her aunt to nurse her baby cousin. One day wanting much to go when not invited, she boldy invented, saying that her aunt was busy and had asked her to spend an hour with the baby. 'I went (she adds) not to the baby, but by a circuitous route to my father's barn, crept behind one of the great doors, which I drew as close to me as I could, vainly wishing that the barn and the hay-stacks would cover me; then I cried and moaned I do not know how many hours, and when I went to bed I said my prayers between sobs, refusing to tell my mother why I wept.'[2]

Such examples of remorse are evidence of a child's

[1] See Stanley Hall, *loc. cit.*, p. 68 f.

[2] *Loc. cit.*

capability of knowingly stating what is false. This is strikingly shown in Miss Wiltshire's two reminiscences; for she distinctly tells us that in the case of her confident assertion about the imaginary snake with ring and bell, she felt no remorse as she was not conscious of uttering a lie.[1] But these sufferings of conscience point to something else, a sense of awful wickedness, of having done violence to all that is right and holy. How, it may be asked, does it happen that children feel thus morally crushed after telling a lie?

Here is a question that can only be answered when we have more material. We know that among all childish offences lying is the one which is apt to be specially branded by theological sanctions. The physical torments with which the 'lying tongue' is threatened, may well beget terror in a timid child's heart. I think it likely, too, that the awfulness of lying is thought of by children in its relation to the all-seeing God who, though he cannot be lied to, knows when we lie. The inaudible palliative words added to the lie may be an awkward child-device for putting the speaker straight with the all-hearing God.

Further inquiry is, however, needed here. Do children contract a horror of a lie when no religious terrors are introduced? Is there anything in the workings of a child's own mind which would lead him to feel after his first lie as if the stable world were tumbling about his ears? Let parents supply us with facts here.

Meanwhile I will venture to put forth a conjecture, and will gladly withdraw it as soon as it is disproved.

So far as my inquiries have gone I do not find that children brought up at home and kept from the contagion of bad example do uniformly develop a lying propensity. Several mothers assure me that their children have never seriously propounded an untruth. I can say the same

[1] *Cf.* what Mrs. Fry says, *Uninitiated* ('A Discovery in Morals').

about two children who have been especially observed for the purpose.[1]

This being so, I distinctly challenge the assertion that lying is instinctive in the sense that a child, even when brought up among habitual truth-tellers, shows an unlearned aptitude to say what he knows to be false. A child's quick imitativeness will, of course, lead him to copy grown-up people's untruths at a very early age.[2]

I will go further and suggest that where a child is brought up normally, that is, in a habitually truth-speaking community, he tends, quite apart from moral instruction, to acquire a respect for truth as what is customary. Consider for a moment how busily a child's mind is occupied during the first years of linguistic performance in getting at the bottom of words, of fitting ideas to words when trying to understand others, and words to ideas when trying to express his own thoughts, and you will see that all this must serve to make truth, that is, the correspondence of statement with fact, to the child-mind something matter-of-course, something not to be questioned, a law wrought into the very usages of daily life which he never thinks of disobeying. We can see that children accustomed to truth-speaking show all the signs of a moral shock when they are confronted with assertions which, as they see, do not answer to fact. The child C. was highly indignant on hearing from his mother that people said what he considered false things about horses and other matters of interest: and he was even more indignant at meeting with any such falsity in one of his books for which he had all a child's reverence. The idea of perpetrating a knowing untruth, so

[1] Stanley Hall, when he speaks of certain forms of lying as prevalent among children, is, as he expressly explains, speaking of children *at school*, where the forces of contagion are in full swing.

[2] I seem to detect possible openings for the play of imitation in many of the indisputably conscious falsehoods reported by Perez, P. Lombroso, and others.

far as I can judge, is simply awful to a child who has been thoroughly habituated to the practice of truthful statement. May it, then, not well be that when a preternatural pressure of circumstances pushes the child over the boundary line of truth, he feels a shock, a horror, a giddy and aching sense of having violated law—law not wholly imposed by the mother's command, but rooted in the very habits of social life? I think the conjecture is well worth considering.

Our inquiry has led us to recognise, in the case of cruelty and of lying alike, that children are by no means morally perfect, but have tendencies which, if not counteracted or held in check by others, will develop into true cruelty and true lying. On the other hand, our study has shown us that these impulses are not the only ones. A child has promptings of kindness, which alternate, often in a capricious-looking way, with those of inconsiderate teasing and tormenting; and he has, I hold, side by side with the imaginative and other tendencies which make for untruthful statement, the instinctive roots of a respect for truth. These tendencies have not the same relative strength and frequency of utterance in the case of all children, some showing, for example, more of the impulse which makes for truth, others more of the impulse which makes for untruth. Yet in all children probably both kinds of impulse are to be observed.

I have confined myself to two of the moral traits of childhood. If there were time to go into an examination of others, as childish vanity, something similar would, I think, be found. Children's vanity, like that of the savage, has been the theme of more than one chapter, and it is undoubtedly vast to the point of absurdity. Yet, side by side with these impulses to deck oneself, to talk boastfully, there exists a delightful childish candour which, if not exactly what we call modesty, is possibly something better.

We may then, perhaps, draw the conclusion that child-nature is on its moral side wanting in consistency and unity. It is a field of half-formed growths, some of which tend to choke the others. Certain of these are favourable, others unfavourable to morality. It is for education to see to it that these isolated propensities be organised into a system in which those towards the good become supreme and regulative principles.

VIII.

UNDER LAW.

The Struggle with Law.

IN the last chapter we tried to get at those tendencies of child-nature which though they have a certain moral significance may in a manner be called spontaneous and independent of the institution of moral training. We will now examine the child's attitude towards the moral government with which he finds himself confronted.

Here again we meet with opposite views. Children, say some, are essentially disobedient and law-breaking. A child as such is a rebel, delighting in nothing so much as in evading the rule which he finds imposed on him by others.

The view that children are instinctively obedient and law-abiding, has not, I think, been very boldly insisted on. A follower of Rousseau, at least, who sees only clumsy interference with natural development in our attempts to govern children, would say that child-nature must resist the artificial and cramping system which the disciplinarian imposes.

It seems, however, to be allowed by some that a certain number of children are docile and disposed to accept authority with its commands. According to these, children are either obedient or disobedient. This is perhaps the view of many mothers and pedagogues.

Here, too, it is probable that we try to make nature

too simple. Even the latter view, in spite of its apparent wish to be discriminating, does not allow for the many-sidedness of the child, and for the many different ways in which the instincts of child-nature may vary.

Now it is worth asking whether, if the child were naturally disposed to look on authority as something wholly hostile he would get morally trained at all. Physically mastered and morally cowed he might of course become; but this is not the same thing as being morally induced into a habit of accepting law and obeying it.

In inquiring into this matter we must begin by drawing a distinction There is first the attitude of a child towards the governor, the parent or other guardian, and there is his attitude towards law as such. These are by no means the same thing, and a child of three or four begins to illustrate the distinction. He may seem to be lawless, opposed to the very idea of government, when in reality he is merely objecting to a particular ruler, and the kind of rule (or as the child would say, misrule) which he is carrying out.

Let us look a little into the non-compliant, disobedient attitude of children. As we have seen, their very liveliness, the abundance of their vigorous impulses, brings them into conflict with others' wills. The ruler, more particularly, is a great and continual source of crossings and checkings. The child has his natural wishes and propensities. He is full of fun, bent on his harmless tricks, and the mother has to talk seriously to him about being naughty. How can we wonder at his disliking the constraint? He has a number of inconvenient, active impulses, such as putting things in disorder, playing with water, and so forth. As we all know, he has a duck-like fondness for dirty puddles. Civilisation, which wills that a child should be nicely dressed and clean, intervenes in the shape of the nurse and soon puts a stop to this mode of diversion. The tyro in submission, if sound in brain and limb, kicks against the restraint, yells, slaps the nurse, and so forth.

Such collisions are perfectly normal in the first years of life. We should not care to see a child give up his inclinations at another's bidding without some little show of resistance. These conflicts are frequent and sharp in proportion to the sanity and vigour of the child. The best children, best from a biological point of view, have, I think, most of the rebel in them. Not infrequently these resistances of young will to old will are accompanied by more emphatic protests in the shape of slapping, pushing, and even biting. The ridiculous inequality in bodily powers, however, saves, or ought to save, the contest from becoming a serious physical struggle. The resistance where superior force is used can only resolve itself into a helpless protest, a vain shrieking or other utterance of checked and baffled impulse.

If instead of physical compulsion authority is asserted in the shape of a highly disagreeable command, a child, before obedience has grown into a habit, will be likely to disobey. If the nurse, instead of pulling the mite away from the puddle, bids him come away, he may assert himself in an eloquent 'I won't,' or less bluntly, 'I can't come yet'. If he is very much in love with the puddle, and has a stout heart, he probably embarks on a tussle of words, in which 'I won't,' or as the child will significantly put it 'I mustn't,' is bandied with 'you must!' the nurse having at length to abandon the 'moral' method and to resort after all to physical compulsion.

Our sample-child has not, we will assume, yet got so far as to recognise and defer to a general rule about cleanliness. Hence it may be said that his opposition is directed against the nurse as propounding a particular command, and one which at the moment is excessively unpleasant. It is as yet not resistance to law as such, but rather to one specific interference of another will.

At the same time we may detect in some of this early resistance to authority something of the true rebel-nature, that is to say the love of lawlessness, and what is worse,

perhaps, the obstinate recklessness of the law-breaker. The very behaviour of a child when another will crosses and blocks the line of his activity is suggestive of this. The yelling and other disorderly proceedings, do not they speak of the temper of the rioter, of the rowdy? And then, the fierce persistence in disobedience under rebuke, and the wild, wicked determination to face everything rather than obey, are not these marks of an almost Satanic fierceness of revolt? The thoroughly naughty child sticks at nothing. Thus a little offender of four when he was reminded by his sister—two years older—that he would be shut out from heaven retorted impiously, 'I don't care,' adding: 'Uncle won't go—I'll stay with him'.[1]

This fierce noisy utterance of the disobedient and law-resisting temper is eminently impressive. Yet it is not the only utterance. If we observe children who may be said to show on the whole an outward submission to authority we shall discover signs of secret dissatisfaction and antagonism. The conflict with rule has not wholly ceased: it has simply changed its manner of proceeding, physical assault and riotous shouts of defiance being now exchanged for dialectic attack.

A curious chapter in the psychology of the child which still has to be written is the account of the various devices by which the astute little novice called upon to wear the yoke of authority seeks to smooth its chafing asperities. These devices may, perhaps, be summed up under the head of "trying it on".

One of the simplest and most obvious of these contrivances is the extempore invention of an excuse for not instantly obeying a particular command. A child soon finds out that to say 'I won't' when he is bidden to do something is indiscreet as well as vulgar. He wants to have his own way without resorting to a gross breach of

[1] My correspondent, discreetly perhaps, does not explain why the uncle was selected as fellow-outcast.

good manners, so he replies insinuatingly, 'I's very sorry, but I's too busy,' or in some such conciliatory words. This field of invention offers a fine opportunity for the imaginative child. A small boy of three years and nine months on receiving from his nurse the familiar order, "Come here!" at once replied, "I can't, nurse, I's looking for a flea," and pretended to be much engrossed in the momentous business of hunting for this quarry in the blanket of his cot.[1] The little trickster is such a lover of fun that he is pretty certain to betray his ruse in a case like this, and our small flea-catcher, we are told, laughed mischievously as he proffered his excuse. Such sly fabrications may be just as naughty as the uninspired excuses of a stupidly sulky child, but it is hard to be quite as much put out by them.

These excuses often show a fine range of inventive activity. How manifold, for example, are the reasons, more or less fictitious, which a boy when told to make less noise is able to urge in favour of non-compliance. Here, of course, all the great matters of the play-world, the need of getting his 'gee-gee' on, of giving his orders to his soldiers, and so forth, come in between the prohibition and compliance, and disobedience in such cases has its excuses. For to the child his play-world, even though in a manner modelled on the pattern of our common world, is apart and sacred; and the conventional restraints as to noise and such like borrowed from the every-day world seem to him to be quite out of place in this free and private domain of his own.

We all know the child's aptness in 'easing' the pressure of commands and prohibitions. If, for example, he is told to keep perfectly quiet because mother or father wants to sleep, he will prettily plead for the reservation of whispering ever so softly. If he is forbidden to ask for things at the

[1] *Cf.* the excuse given by a little girl of three when her grandmother called her, "I can't come, I am suckling baby" (the doll). P. Lombroso, *op. cit.*, p. 126.

table he will resort to sly indirect reminders of what he wants, as when a boy of five and a half years whispered audibly: 'I hope somebody will offer me some more soup,' or when a girl of three and a half years, with still greater childish tact, observed on seeing the elder folk eating cake: 'I not asking'. This last may be compared with a story told by Rousseau of a little girl of six years who, having eaten of all the dishes but one, artfully indicated the fact by pointing in turn to each of the dishes, saying: 'I have eaten that,' but carefully passing by the untasted one.[1] When more difficult duties come to be enforced and the neophyte in the higher morality is bidden to be considerate for others, and even to sacrifice his own comfort for theirs, he is apt to manifest a good deal of skill in adjusting the counsel of perfection to young weakness. Here is an amusing example. A little boy, Edgar by name, aged five and three-quarter years, was going out to take tea with some little girls. His mother, as is usual on such occasions, primed him with special directions as to behaviour, saying: "Remember to give way to them like father does to me". To which Edgar, after thinking a brief instant, replied: "Oh, but *not* all at *once*. *You* have to *persuade* him."

A like astuteness will show itself in meeting accusation. The various ways in which a child will seek to evade the point in such cases are truly marvellous and show the childish intelligence at its ablest.

Sometimes the dreary talking to, with its well-known deep accusatory tones, its familiar pleadings, 'How can you be so naughty?' and the rest is daringly ignored. After keeping up an excellent appearance of listening the little culprit will proceed in the most artless way to talk about something more agreeable. This is trying, but is not the worst. The deepest depth of maternal humiliation is reached when

[1] *Emile*, livre v., quoted by Perez, *L'Art et la Poésie chez l'Enfant*, p. 127. Rousseau uses this story in order to show that girls are more artful than boys.

a carefully prepared and solemnly delivered homily is rewarded by a *tu quoque* in the shape of a correction of something in the delivery which offends the child's sense of propriety. This befel one mother who, after talking seriously to her little boy about some fault, was met with this remark: "Mamma, when you talk you don't move your upper jaw".

It is of course difficult to say how far a child's interruptions and what look like turnings of the conversation when receiving rebuke are the result of deliberate plotting. We know it is hard to hold the young thoughts long on any subject, and the homily makes a heavy demand in this respect, and its theme is apt to seem dull to a child's lively brain. The thoughts will be sure to wander then, and the rude interruptions and digressions may after all be but the natural play of the young mind. I fear, however, that design often has a hand here. The first digression to which the weak disciplinarian succumbed may have been the result of a spontaneous flow of childish ideas: but its success enables the observant child to try it on a second time with artful aim.

In cases in which no attempt is made to ignore the accusation, the small wits are busy discovering palliatives and exculpations. Here we have the many ruses, often crude enough, by which the little culprit tries to shake off moral responsibility, to deny the authorship of the action found fault with. The blame is put on anybody or anything. When he breaks something, say a cup, and is scolded, he saves himself by saying it was because the cup was not made strong enough, or because the maid put it too near the edge of the table. There are clear indications of fatalistic thought in these childish disclaimers. Things were so conditioned that he could not help doing what he did. This fatalism betrays itself in the childish subterfuges already referred to, by which the ego tries to screen itself shabbily by throwing responsibility on to the bodily agents. This device is sometimes hit upon very early.

A wee child of two when told not to cry gasped out: "Elsie cry—*not* Elsie cry—tears cry—naughty tears!" This, it must be allowed, is more plausible than C.'s lame attempt to put off responsibility for some naughty action on his hands. For our tears are in a sense apart from us, and in the first years are wholly beyond control.

The fatalistic form of exculpation meets us later on under the familiar form, 'God made me like that'. A boy of three was blamed for leaving his crusts, and his conduct contrasted with that of his model papa. Whereupon he observed with a touch of metaphysical precocity: "Yes, but, papa, you see God had made you and me different".

These denials of authorship occur when a charge is brought home and no clear justification of the action is forthcoming. In many cases the shrewd intelligence of the child—which is never so acute as in this art of moral self-defence—discovers justificatory reasons. In such a case the attitude is a very different one. It is no longer the helpless lifting of hands of the irresponsible one, but the bold steady glance of one who is prepared to defend his action.

Sometimes these justifications are pitiful examples of quibbling. A boy had been rough with his baby brother. His mother chid him, telling him he might hurt baby. He then asked his mother, 'Isn't he my own brother?' and on his mother admitting so incontestable a proposition, exclaimed triumphantly, "Well, you said I could do what I liked with *my own* things". The idea of the precious baby being a boy's own to do what he likes with is so remote from older people's conceptions that it seems impossible to credit the boy with misunderstanding. We ought, perhaps, to set him down as a depraved little sophist and destined—but predictions happily lie outside our *métier*.

In some cases these justifications have a dreadful look of being after-thoughts invented for the express purpose of

self-protection and knowingly put forward as fibs. Yet there is need of a wise discrimination here. Take, for example, the following from the Worcester Collection. A boy of three was told by his mother to stay and mind his baby-sister while she went downstairs. On going up again some time after she met him on the stairs. "Being asked why he had left the baby he said there was a bumble-bee in the room and he was afraid he would get stung if he stayed there. His mother asked him if he wasn't afraid his little sister would get stung. He said, 'Yes,' but added that if he stayed in the room the bee might sting them both, and then she would have two to take care of." Now with every wish to be charitable I cannot bring myself to think that the small boy had really gone through that subtle process of disinterested calculation before vacating the room in favour of the bumble-bee, if indeed there was a bumble-bee. To be caught in the act and questioned is, I suspect, a situation particularly productive of such specious fibbing.

One other illustration of this keen childish dialectic when face to face with the accuser deserves to be touched on. The sharp little wits have something of a lawyer's quickness in detecting a flaw in the indictment. Any exaggeration into which a feeling of indignation happens to betray the accuser is instantly pounced upon. If, for example, a child is scolded for pulling kitty's ears and making her cry it is enough for the little stickler for accuracy to be able to say: 'I wasn't pulling kitty's *ears*, I was only pulling *one* of her ears'. This ability to deny the charge in its initial form gives the child a great advantage, and robs the accusation in its amended form of much of its sting. Whence, by the way, one may infer that wisdom in managing children shows itself in nothing more than in a scrupulous exactness in the use of words.

While there are these isolated attacks on various points of the daily discipline, we see now and again a bolder line

of action in the shape of a general protest against its severity. Children have been known to urge that the punishments inflicted on them are ineffectual; and, although their opinion on such matters is hardly disinterested, it is sometimes pertinent enough. An American boy aged five years ten months began to cry because he was forbidden to go into the yard to play, and was threatened by his mother with a whipping. Whereupon he observed: "Well now, mamma, that will only make me cry more".

These childish protests are, as we know, wont to be met by the commonplaces about the affection which prompts the correction. But the child finds it hard to swallow these subtleties. For him love is love, that is caressing, and doing everything for his present enjoyment; and here is the mother who says she loves him, and often acts as if she did, transforming herself into an ogre to torment him and make him miserable. He may accept her assurance that she scolds and chastises him because she is a good mother; only he is apt to wish that she were a shade less good. A boy of four had one morning to remain in bed till ten o'clock as a punishment for misbehaviour. He proceeded to address his mother in this wise: "If I had any little children I'd be a worse mother than you—I'd be quite a bad mother; I'd let the children get up directly I had done my breakfast at any rate". If, on the other hand, the mother puts forward her own comfort as the ground of the restraint she may be met by this kind of thing: "I wish you'd be a little more self-sacrificing and let me make a noise".

Enough has been said to illustrate the ways in which the natural child kicks against the imposition of restraints on his free activity. He begins by showing himself an open foe to authority. For a long time after, while making a certain show of submission, he harbours in his breast something of the rebel's spirit. He does his best to evade the most galling parts of the daily discipline, and displays an

admirable ingenuity in devising excuses for apparent acts of insubordination. Where candour is permitted he is apt to prove himself an exceedingly acute critic of the system which is imposed on him.

All this, moreover, seems to show that a child objects not only to the particular administration under which he happens to live, but to all law as implying restraints on free activity. Thus, from the child's point of view, so far as we have yet examined it, punishment as such is a thing which ought not to be.

So strong and deep-reaching is this antagonism to law and its restraints apt to be that the childish longing to be 'big' is, I believe, grounded on the expectation of liberty. To be big seems to the child more than anything else to be rid of all this imposition of commands, to be able to do what one likes without interference from others. This longing may grow intense in the breast of a quite small child. "Do you know," asked a little fellow of four years, "what I shall do when I'm a big man? I'll go to a shop and buy a bun and pick out all the currants." This funny story is characteristic of the movements of young desire. The small prohibition not to pick out the currants is one that may chafe to soreness a child's sensibility.

On the Side of Law.

If, however, we look closer we shall find that this hostility is not the whole, perhaps not the most fundamental part of the child's attitude. It is evident, to begin with, that a good deal of this early criticism of parental government, so far from implying rejection of all rule, plainly implies its acceptance. Some of the earliest and bitterest protests against interference are directed against what looks to the child irregular or opposed to law. He is allowed, for example, for some time to use a pair of scissors as a plaything, and is then suddenly deprived of it, his mother having now first discovered the unsuitability of the plaything. In such a

case the passionate outburst and the long bitter protest attest the sense of injustice, the violation of custom and unwritten law. Again, the keen resentful opposition of the child to the look of anything like unfairness and partiality in parental government shows that he has a jealous feeling of regard for the universality and the inviolableness of law. Much, too, of the criticism dealt with above, reveals a fundamental acknowledgment of law—at least for the purposes of the argument. Thus the very attempt to establish an excuse, a justification, may be said to be a tacit admission that if the action *had been* done as alleged it would have been naughty and deserving of punishment. In truth the small person's challengings of the *modus operandi* of his mother's rule, just because they are often in a true sense *ethical*, clearly start from the assumption of rules, and of the distinction of right and wrong.

This of itself shows that there are in the child compliant as well as non-compliant tendencies towards law and towards authority so far as this is lawful. We may now pass to other parts of a child's behaviour which help to make more clear the existence of such law-abiding impulses.

Here we may set out with those exhibitions of something like remorse which often follow disobedience and punishment in the first tender years. These may, at first, be little more than physical reactions, due to the exhaustion of the passionate outbursts. But they soon begin to show traces of new feelings. A child in disgrace, before he has a clear moral sense of shame, suffers through a feeling of estrangement, of loneliness, of self-restriction. If the habitual relation between mother and child is a loving and happy one the situation becomes exceedingly painful. The pride and obstinacy notwithstanding, the culprit feels that he is cut off from more than one half of his life, that his beautiful world is laid in ruins. The same little boy who said: 'I'd be a worse mother,' remarked to his mother a

few months later that if he could say what he liked to God it would be: 'Love me when I'm naughty'. I think one can hardly conceive of a more eloquent testimony to the suffering of the child in the lonesome, loveless state of punishment.

Is there any analogue of our sense of remorse in this early suffering? The question of an instinctive moral sense in children is a perplexing one, and I do not propose to discuss it now. I would only venture to suggest that in these poignant griefs of child-life there seem to be signs of a consciousness of violated instincts. This is, no doubt, in part the smarting of a loving heart on remembering its unloving action. But there may be more than this. A child of four or five is, I conceive, quite capable of reflecting at such a time that in his fits of naughtiness he has broken with his normal orderly self, that he has set at defiance that which he customarily honours and obeys.

What, it may be asked, are these instincts? In their earliest discernible form they seem to me to be respect for rule, for a regular manner of proceeding as opposed to an irregular. A child, as I understand the little sphinx, is at once the subject of ever-changing caprices—whence the delight in playful defiance of all rule and order—and the reverer of custom, precedent, rule. And, as I conceive, this reverence for precedent and rule is the deeper and stronger, holding full sway in his serious moments.

If this view is correct the suffering of naughty children is not, as has been said by some, wholly the result of the externals of discipline, punishment, and the loss of the agreeable things which follow good behaviour, though this is commonly an element; nor is it merely the sense of loneliness and lovelessness, though that is probably a large slice of it; but it contains the germ of something nearer a true remorse, *viz.*, a sense of normal feelings and dispositions set at nought and contradicted.

And now we may ask what evidence there is for the

existence of this respect for order and regularity other than that afforded by the childish protests against apparent inconsistencies in the administration of discipline.

Mr. Walter Bagehot tells us that the great initial difficulty in the formation of communities was the fixing of custom. However this be in the case of primitive communities it seems to me indisputable that in the case of a child brought up in normal surroundings there is a clearly observable instinct to fall in with a common mode of behaviour.

This respect for custom is related to the imitative instincts of the child. He does what he sees others do, and so tends to fall in with their manner of life. We all know that these small people take their cue from their elders as to what is allowable. Hence one difficulty of moral training. A little boy when two years and one month old had happened to see his mother tear a piece of calico. The next day he was discovered to have taken the sheet from the bed and made a rent in it. When scolded, he replied in his childish German, 'Mamma mach put,' *i.e.*, 'macht caput' (breaks things). It is well when the misleading effect of 'example' is so little serious as it was in this case.

In addition to this effect of others' doings in making things allowable in the child's eyes, there is the binding influence of a repeated regular manner of proceeding. This is the might of 'custom' in the full sense of the term, the force which underlies all a child's conceptions of 'right'. In spite of the difficulties of moral training, of drilling children into orderly habits—and I do not lose sight of these—it may confidently be said that they have an inbred respect for what is customary, and wears the appearance of a rule of life. Nor is this, I believe, altogether a reflexion, by imitation, of others' orderly ways, and of the system of rules which is imposed on him by others. I am quite ready to admit that the institution of social life, the regular procession of the daily doings of the house, aided

by the system of parental discipline, has much to do with fixing the idea of orderliness and regularity in the child's mind. Yet I believe the facts point to something more, to an innate disposition to follow precedent and rule, which precedes education, and is one of the forces to which education can appeal. This disposition has its roots in habit, which is apparently a law of all life: but it is more than the blind impulse of habit, since it is reflective and rational, and implies a recognition of the universal.

The first crude manifestation of this disposition to make rule, to rationalise life by subjecting it to a general method, is seen in those actions which seem little more than the working of habit, the insistence on the customary lines of procedure at meals and such like. A mother writes that her boy when five years old was quite a stickler for punctilious order in these matters. His cup and spoon had to be put in precisely the right place, the sequences of the day, as the lesson before the walk, the walk before bed, had to be rigorously observed. Any breach of the customary was apt to be resented as a sort of impiety. This may be an extreme instance, but my observation leads me to say that such punctiliousness is not uncommon. What is more, I have seen it developing itself where the system of parental government was by no means characterised by severe insistence on such minutiæ of order. And this would seem to show that it cannot wholly be set down to the influences of such government. It seems rather to be a spontaneous extension of the realm of rule or law.

This impulse to extend rule appears more plainly in many of the little ceremonial observances of the child. Very charmingly is this respect for rule exhibited in relation to his animals, dolls and other pets. Not only are they required to do things in a proper orderly manner, but people have to treat them with due deference.

"Every night," writes a mother of her boy aged two years seven months, "after I have kissed and shaken hands with him, I

have to kiss his 'boy,' that is his doll, who sleeps with him, and to shake its two hands—also to shake the four hoofs of a tiny horse which lies at the foot of his cot. When all this has been gone through, he stands up and entreats, 'More tata, please, more tata,' *i.e.*, 'kiss me again and say more good-nights'. These customs of his with regard to kissing are peculiar to himself—he kisses his 'boy' (doll), also pictures of horses, dogs, cocks and hens, and he puts his head against us *to be kissed;* but he will only shake hands and will not kiss people himself: he reserves his kisses for what he seems to feel inferior things. We kiss our boy, he kisses his; but he insists upon being shaken hands with for his part. If other children come to play he gives them toys, watches them with delight, tries to give them rides on his 'go-go's,' but does not kiss them; though he will stroke their hair he does not return their kisses. It seems to me that he regards it as an action to be reserved for an inferior thing."

I have quoted at length this careful bit of maternal observation because it seems to indicate so clearly a spontaneous extension of a custom. The practice of the mother and father in kissing him was generalised into a rule of ceremony in the treatment of all inferiors.

This subject of childish ceremonial is a curious one, and deserves a more careful study. It is hardly less interesting than the origin and survival of adult ceremonial, as elucidated by Mr. Herbert Spencer. The respect for orderly procedure on all serious occasions, and especially at church, is as exacting as that of any savage tribe. *Punch* illustrated this some years ago by a picture of a little girl asking her mamma if Mr. So-and-So was not a very wicked man, because he didn't "smell his hat" when he came into his pew.

This jealous regard for ceremony and the proprieties of behaviour is seen in the enforcement of rules of politeness by children who will extend them far beyond the scope intended by the parent. A delightful instance of this fell under my own observation, as I was walking on Hampstead Heath. It was a spring day, and the fat buds of the chestnuts were bursting into magnificent green plumes.

Two well-dressed 'misses,' aged, I should say, about nine and eleven, were taking their correct morning walk. The elder called the attention of the younger to one of the trees, pointing to it. The younger exclaimed in a highly shocked tone: "Oh, Maud (or was it 'Mabel'?), you know you *shouldn't* point!" The notion of perpetrating a rudeness on the chestnut tree was funny enough. But the incident is instructive as illustrating the childish tendency to stretch and generalise rules to the utmost.

The domain of prayer well illustrates the same tendency. The child envisages God as a very, very grand person, and naturally, therefore, extends to him all the courtesies he knows of. Thus he must be addressed politely with the due forms 'Please,' 'If you please,' and so forth. The German child shrinks from using the familiar form 'Du' in his prayers. As one maiden of seven well put it in reply to a question why she used 'Sie' in her prayers: "Ich werde doch den lieben Gott nicht Du nennen: ich kenne ihn ja gar nicht". Again, a child feels that he must not worry or bore God (children generally find out that some people look on them as bores), or treat him with any kind of disrespect. C. objected to his sister's remaining so long at her prayers, apparently on the ground that, as God knew what she had to say, her much talking would be likely to bore him. An American boy of four on one occasion refused to say his prayers, explaining, "Why, they're old. God has heard them so many times that they are old to him too. Why, he knows them as well as I do myself." On the other hand, God must not be kept waiting. "Oh, mamma," said a little boy of three years eight months (the same that was so insistent about the kissing and hand-shaking), "how long you have kept me awake for you; God has been wondering so whenever I was going to say my prayers." All the words must be nicely said to him. A little boy, aged four and three-quarter years, once stopped in the middle of a prayer and asked his mother: "Oh! how

do you spell that word?" The question is curious as suggesting that the child may have envisaged his silent communications to the far-off King as a letter. In any case, it showed painstaking and the wish not to offend by slovenliness of address.

Not only do children thus of themselves extend the scope and empire of rule, they show a disposition to make rules for themselves. If a child that is told to do a thing on a single occasion only is found repeating the action on other occasions, this seems to show the germ of a law-making impulse. A little boy of two years one month was once told to give a lot of old toys to the children of the gardener. Some time after, on receiving some new toys, he put away his old ones as before for the less fortunate children. Every careful observer of children knows that they are apt to proceed this way, to erect particular actions and suggestions into precedents. This tendency gives something of the amusing priggishness to the ways of childhood.

There is little doubt, I think, that this respect for proper orderly behaviour, for precedent and general rule, forms a vital element in the child's submission to parental law. In fixing our attention on occasional acts of disobedience and lawlessness we are apt to overlook the ease, the absence of friction with which normal children, if only decently trained, fall in with the larger part of our observances and ordinances.

That the instinct for order does assist moral discipline may be seen in the fact that children are apt to pay enormous deference to our rules. Nothing is more suggestive here than the talk of children among themselves, the emphasis they are wont to lay on the 'must' and 'must not'. The truth is that children have a tremendous belief in law: a rule is apt to present itself to their imagination as a thing supremely sacred and awful before which it prostrates itself.

This recognition of the absolute imperativeness of a rule properly laid down by the recognised authority is seen in children's jealous insistence on the observance of the rule in their own case and in that of others. As has been observed by Preyer a child of two years eight months will follow out the prohibitions of the mother when he falls into other hands, sternly protesting, for example, against the nurse giving him the forbidden knife at table. Very proper children rather like to instruct their aunts and other ignorant persons as to the right way of dealing with them, and will rejoice in the opportunity of setting them right even when it means a deprivation for themselves. The self-denying ordinance: 'Mamma doesn't let me have many sweets,' is by no means beyond the powers of such a child. One can see here, no doubt, traces of a childish sense of self-importance, a feeling of the much-waited-on little sovereign for what befits his supreme worth. Yet, allowing for such elements, there seems to me to be in this behaviour a residue of genuine respect for parental law.

These carryings out of the parental behest when entrusted to other hands are instructive as suggesting that the child feels the constraining force of the command when its author is no longer present to enforce it. Perhaps a clearer evidence of respect for the law as such, apart from its particular enforcement by the parent, is supplied by children's way of extending the rules laid down for their own behaviour to that of others. This point has already been illustrated in the tendency to universalise the observances of courtesy and the like. No trait is better marked in the normal child than the impulse to subject others to his own disciplinary system. In truth, children are for the most part particularly alert disciplinarians. With what amusing severity are they wont to lay down the law to their dolls, and their animal playmates, subjecting them to precisely the same prohibitions and punishments as those to which they themselves are subject! Nor do they

stop here. They enforce the duties just as courageously on their human elders. A mite of eighteen months went up to her elder sister, who was crying, and with perfect mimicry of the nurse's corrective manner, said: "Hush! Hush! papa!" pointing at the same time to the door. The little girl M. when twenty-two months old was disappointed because a certain Mr. G. did not call. In the evening she said: "Mr. D. not did tum—was very naughty, Mr. D. have to be whipped". So natural and inevitable to the intelligence of a child does it seem that the system of restraints, rebukes, punishments under which he lives should have universal validity.

This judicial bent of the child is a curious one and often develops a priggish fondness for setting others morally straight. Small boys have to endure much in this way from the hands of slightly older sisters proficient in matters of law and delighting to enforce the moralities. But sometimes the sisters lapse into naughtiness, and then the small boys have their chance. They too can on such occasions be priggish if not downright hypocritical. A little boy had been quarrelling with his sister named Muriel just before going to bed. When he was undressed he knelt down to say his prayers, Muriel sitting near and listening. He prayed (audibly) in this wise: "Please, God, make Muriel a good girl," then looked up and said in an angry voice, "Do you hear that, Muriel?" and after this digression resumed his petition. I believe fathers when reading family prayers have been known to apply portions of Scripture in this personal manner to particular members of the family; and it is even possible that extempore prayers have been invented, as by this little prig of a boy, for the purpose of administering a sort of back-handed corrective blow to an erring neighbour.

This mania for correction shows itself too in relation to the authorities themselves. A collection of rebukes and expositions of moral precept supplied by children to their

erring parents would be amusing and suggestive. As was illustrated above, a child is especially keen to spy faults in his governors when they are themselves administering authority. Here is another example: A boy of two—the moral instruction of parents by the child begins betimes—would not go to sleep when bidden to do so by his father and mother. At length the father, losing patience, addressed him with a man's fierce emphasis. This mode of admonition so far from cowering the child simply offended his sense of propriety, for he rejoined: "You s'ouldn't s'ouldn't, Assum (*i.e.*, 'Arthur,' the father's name), you s'ould speak nicely".

The lengths to which a child with the impulse of moral correction strong in him will sometimes go, are quite appalling. One evening a little girl of six had been repeating the Lord's prayer. When she had finished, she looked up and said: 'I don't like that prayer, you ought not to ask for *bread*, and all that *greediness*, you ought only to ask for goodness!' There is probably in this an imitative reproduction of something which the child had been told by her mother, or had overheard. Yet allowing for this, one cannot but recognise a quite alarming degree of precocious moral priggishness.

We may now turn to what my readers will probably regard as still clearer evidence of a law-fearing instinct in children, *viz.*, their voluntary submission to its commands. We are apt to think of these little ones as doing right only under external compulsion. But although a child of four may be far from attaining to the state of 'autonomy of will' or self-legislation spoken of by the philosopher, he may show a germ of such free adoption of law. It is possible that we see the first faint traces of this in a small child's way of giving orders to, rebuking, and praising himself. The little girl M., when only twenty months old, would, when left by her mother alone in a room, say to herself: 'Tay dar' (stay there). About the same time, after being

naughty and squealing 'like a railway-whistle,' she would after each squeal say in a deep voice, 'Be dood, Babba' (her name). At the age of twenty-two months she had been in the garden and misbehaving by treading on the box border, so that she had to be carried away by her mother. After confessing her fault she wanted to go into the garden again, and promised, 'Babba will not be naughty adain'. When she was out she looked at the box, saying, "If oo (you) do dat I shall have to take oo in, Babba". Here, no doubt, we see quaint mimicries of the external control, but they seem to me to indicate a movement in the direction of self-control.

Very instructive here is the way in which children will voluntarily come and submit themselves to our discipline. The little girl M. when less than two years old, would go to her mother and confess some piece of naughtiness and suggest the punishment. A little boy aged two years and four months was deprived of a pencil from Thursday to Sunday for scribbling on the wall-paper. His punishment was, however, tempered by permission to draw when taken downstairs. On Saturday he had finished a picture downstairs which pleased him. When his nurse fetched him she wanted to look at the drawing, but the boy strongly objected, saying: "No Nana (name for nurse) look at it till Sunday". And sure enough when Sunday came, and the pencil was restored to him, he promptly showed nurse his picture. This is an excellent observation full of suggestion as to the way in which a child's mind works. Among other things it seems to show pretty plainly that the little fellow looked on the nursery and all its belongings, including the nurse, during those three days as a place of disgrace into which the privileges of the artist were not to enter. He was allowed the indulgence of drawing downstairs, but he had no right to exhibit his workmanship to the nurse, who was inseparably associated in his mind with the forbidden nursery drawing. Thus a process of genuine

child-thought led to a self-instituted extension of the punishment.

A month later this child "pulled down a picture in the nursery"—the nursery walls seem to have had a fell attraction for him—"by standing on a sofa and tugging till the wire broke. He was alone at the time and very much frightened though not hurt. He was soothed and told to leave the picture alone in future, but was not in any way rebuked. He seemed, however, to think that some punishment was necessary, for he presently asked whether he was going to have a certain favourite frock on that afternoon. He was told 'No' (the reason being that the day was wet or something similar) and he said immediately: ''Cause Neil pulled picture down?'" Here I think we have unmistakable evidence of an expectation of punishment as the fit and proper sequel in a case which, though it did not exactly resemble those already branded by it, was felt in a vague way to be disorderly and naughty.

Such stories of expectation of punishment are capped by instances of correction actually inflicted by the child on himself. I believe it is not uncommon for a child when possessed by a sense of having been naughty to object to having nice things at table on the ground that previously on a like occasion he was deprived of them. But the most curious instance of this moral rigour towards self which I have met with is the following: A girl of nine had been naughty, and was very sorry for her misbehaviour. Shortly after she came to her lesson limping, and remarked that she felt very uncomfortable. Being asked by her governess what was the matter with her she said: "It was very naughty of me to disobey you, so I put my right shoe on to my left foot and my left shoe on to my right foot".

The facts here briefly illustrated seem to me to show that there is in the child from the first a rudiment of true law-abidingness. And this is a force of the greatest consequence to the disciplinarian. It is something which takes

side in the child's breast with the reasonable governor and the laws which he or she administers. It secures ready compliance with a large part of the discipline enforced. When the impulse urging towards licence has been too strong, and disobedience ensues, this same instinct comes to the aid of order and good conduct by inflicting pains which are the beginning of what we call remorse.

By-and-by other forces will assist. The affectionate child will reflect on the misery his disobedience causes his mother. A boy of four and three-quarter years must, one supposes, have woke up to this fact when he remarked to his mother: "Did you choose to be a mother? I think it must be rather tiresome." The day when the child first becomes capable of thus putting himself into his mother's place and realising, if only for an instant, the trouble he has brought on her, is an all-important one in his moral development.

The Wise Law-giver.

As our illustrations have suggested, and as every thoughtful parent knows well enough, the problem of moral training in the first years is full of difficulty. Yet our study surely suggests that it is not so hopeless a problem as we are sometimes weakly disposed to think. Perhaps a word or two on this may not inappropriately close this essay.

I will readily concede that the difficulty of inculcating in children a sweet and cheerful obedience arises partly from their nature. There are trying children, just as there are trying dogs that howl and make themselves disagreeable for no discoverable reason but their inherent 'cussedness'. There are, I doubt not, conscientious painstaking mothers who have been baffled by having to manage what appears to be the utterly unmanageable.

Yet I think that we ought to be very slow to pronounce any child unmanageable. I know full well that in the case

of these small growing things there are all kinds of hidden physical commotions which breed caprices, ruffle the temper, and make them the opposite of docile. The peevish child who will do nothing, will listen to no suggestion, is assuredly a difficult subject to deal with. But such moodiness and cross-grainedness springing from bodily disturbances will be allowed for by the discerning mother, who will be too wise to bring the severer measures of discipline to bear on a child when subject to their malign influence. Waiving these disturbing factors, however, I should say that a good part, certainly more than one half, of the difficulty of training children is due to our clumsy bungling modes of going to work.

Sensible persons know that there is a good and a bad way of approaching a child. The wrong ways of trying to constrain children are, alas, numerous. I am not writing an 'advice to parents,' and am not called on therefore to deal with the much-disputed question of the rightness and wrongness of corporal punishment. Slaps may be needful in the early stages, even though they do lead to little tussles. A mother assures me that these battles with her several children have all fallen between the ages of sixteen months and two years. It is, however, conceivable that such fights might be avoided altogether ; yet a man should be chary of dogmatising on this delicate matter.

What is beyond doubt is that the slovenly discipline — if indeed discipline it is to be called—which consists in alternations of gushing fondness with almost savage severity, or fits of government and restraint interpolated between long periods of neglect and *laisser faire*, is precisely what develops the rebellious and law-resisting propensities. But discipline can be bad without being a stupid pretence. Everything in the shape of inconsistency, saying one thing at one time, another thing at another, or treating one child in one fashion, another in another, tends to undermine the pillars of authority. Young eyes are quick to note these

little contradictions, and they sorely resent them. It is astonishing how careless disciplinarians can show themselves before these astute little critics. It is the commonest thing to tell a child to behave like his elders, forgetting that this, if indeed a rule at all, can only be one of very limited application. Here is a suggestive example of the effect of this sort of teaching sent me by a mother. "At three and a half, when some visitors were present, she was told not to talk at dinner-time. 'Why me no talk? Papa talks.' 'Yes, but papa is grown up, and you are only a little girl; you can't do just like grown-up people.' She was silent for some time, but when I told her ten minutes later to sit nicely with her hands in her lap like her cousins, she replied, with a very humorous smile, 'Me tan't (can't) sit like grown-up people, me is only a little girl'."

We can fail and make children disloyal instead of loyal subjects by unduly magnifying our office, by insisting too much on our authority. Children who are over-ruled, who have no taste of being left unmolested and free to do what they like, can hardly be expected to submit graciously. Another way of carrying parental control to excess is by exacting displays of virtue which are beyond the moral capabilities of the child. A lady sends me this reminiscence of her childhood. She had been promised sixpence when she could play her scales without fault, and succeeded in the exploit on her sixth birthday. The sixpence was given to her, but soon after her mother suggested that she should spend the money in fruit to give to her (the mother's) invalid friend. This was offending the sense of justice, for if the child is jealous of anything as his very own it is surely the reward he has earned; and was, moreover, a foolish attempt to call forth generosity where generosity was wholly out of place. An even worse example is that recorded by Ruskin. When a child he was expected to come down to dessert and crack nuts for the grand older folk while peremptorily forbidden to eat any. Such refined cruelties of government

deserve to be defeated in their objects. Much of our ill success in governing children would probably turn out to be attributable to unwisdom in assigning tasks, and more particularly in making exactions which wound that sensitive fibre of a child's heart, the sense of justice.

Parents are, I fear, apt to forget that generosity and the other liberal virtues owe their worth to their spontaneity. They may be suggested and encouraged but cannot be exacted. On the other hand, a parent cannot be more foolish than to discourage a spontaneous outgoing of good impulse, as if nothing were good but what emanated from a spirit of obedience. In a pretty and touching little American work, *Beckonings from Little Hands*, the writer describes the remorse of a father who, after his child's death, recalled the little fellow's first crude endeavour to help him by bringing fuel, an endeavour which, alas! he had met with something like a rebuff.

The right method of training, which develops and strengthens by bracing exercise the instinct of obedience, cannot easily be summarised; for it is the outcome of the highest wisdom. I may, however, be permitted to indicate one or two of its main features.

Informed at the outset by a fine moral feeling and a practical tact as to what ought to be expected, the wise mother is concerned before everything to make her laws appear as much a matter of course as the daily sequences of the home life, as unquestionable axioms of behaviour; and this not by a foolish vehemence of inculcation but by a quiet skilful inweaving of them into the order of the child's world. To expect the right thing, as though the wrong thing were an impossibility, rather than to be always pointing out the wrong thing and threatening consequences; to make all her words and all her own actions support this view of the inevitableness of law; to meet any indications of a disobedient spirit, first with misunderstanding, and later with amazement; this is surely the first and fundamental matter.

The effectiveness of this discipline depends on the simple psychological principle that difficult actions tend to realise themselves in the measure in which the ideas of them become clear and persistent. Get a child steadily to follow out in thought an act to which he is disinclined and you have more than half mastered the disinclination. The quiet daily insistence of the wise rule of the nursery proceeds by setting up and maintaining the ideas of dutiful actions, and so excluding the thought of disobedient actions.

It has recently been pointed out that in this moral control of the child through suggestion of right actions we have something closely analogous to the action of suggestion upon the hypnotised subject. The mother, the right sort of mother, has on the child's mind something of the subduing influence of the Nancy doctor: she induces ideas of particular actions, gives them force and persistence so that the young mind is possessed by them and they work themselves out into fulfilment as occasion arises.

In order that this effect of 'obsession,' or a full occupation of consciousness with the right idea, may result, certain precautions are necessary. As observant parents know, a child may be led by a prohibition to do the very thing he is bidden not to do. We have seen how readily a child's mind moves from an affirmation to a corresponding negation, and conversely. The 'contradictoriness' of a child, his passion for saying the opposite of what you say, shows the same odd manner of working of the young mind. Wanting to do what he is told not to do is another effect of this "contrary suggestion," as it has been called, aided of course by the child's dislike of all constraint.[1] If we want to avoid this effect of suggestion and to secure the direct effect, we must first of all acquire the difficult secret of personal influence, of the masterfulness which does not repel but attracts; and

[1] On the nature of this contrary suggestion see Mark Baldwin, *Mental Development in the Child and the Race*, p. 145 f.

secondly try to reduce our forbiddings with their contrary suggestions to a minimum.

The action in moral training of this influence of a quasi-hypnotic suggestion becomes more clearly marked when difficulties occur ; when some outbreak of wilful resistance has to be recognised and met, or some new and relatively arduous feat of obedience has to be initiated. Here I find that intelligent mothers have found their way to methods closely resembling those of the hypnotist. "When R. is naughty and in a passion (writes a lady friend of her child aged three and a half), I need only suggest to him that he is some one else, say a friend of his, and he will take it up at once, he will pretend to be the other child, and at last go and call himself, now a good boy, back again." This mode of suggestion, by helping the 'higher self' to detach itself from and control the lower might, one suspects, be much more widely employed in the moral training of children. Suggestion may work through the emotions. Merely to say, 'Mother would like you to do this,' is to set up an idea in the child's consciousness by help of the sustaining force of his affection. "If (writes a lady) there was anything Lyle particularly wished not to do, his mother had only to say, 'Dobbin (a sort of canonised toy-horse already referred to) would like you to do this,' and it was done without a murmur."

We have another analogue to hypnotic suggestion where a mother prepares her child some time beforehand for a difficult duty, telling him that she expects him to perform it. A mother writes that her boy, when about the age of two and a half years more particularly, was inclined to burst into loud but short fits of crying. "I have found (she says) these often checked by telling him beforehand what would be expected of him, and exacting a promise that he would do the thing cheerfully. I have seen his face flush up ready to cry when he remembered his promise and controlled himself." This reminds one forcibly of

the commands suggested by the hypnotiser to be carried into effect when the subject wakes. Much more, perhaps, might be done in this direction by choosing the right moments for setting up the persistent ideas in the child's consciousness. I know a lady who got into the way of giving moral exhortation to her somewhat headstrong girl at night before the child fell asleep, and found this very effectual. It is possible that we may be able to apply this idea of preparatory and premonitory suggestion in new and surprising ways to difficult and refractory children.[1]

One other way in which the wise mother will win the child over to duty is by developing his consciousness of freedom and power. A mother, who was herself a well-known writer for children, has recorded in some notes on her children that when one of her little girls had declined to accede to her wish she used to say to her: 'Oh, yes, I think when you have remembered how pleasant it is to oblige others you will do it'. 'I will think about it, mamma,' the child would reply, laughing, and then go and hide her head behind a sofa-pillow which she called her 'thinking corner'. In half a minute she would come out and say: "Oh, yes, mamma, I have thought about it and I will do it". This strikes me as an admirable combination of regulative suggestion with exercise of the young will in moral decision. It gave the child the consciousness of using her own will, and yet maintained the needed measure of guidance and control.

As the moral consciousness develops and new problems arise, new openings for such suggestive guidance will offer themselves. How valuable, for example, is the mother's encouragement of the weakly child, shrinking from a difficult self-repressive action, when she says with inspiring voice:

[1] The bearings of (hypnotic) suggestion on moral education have been discussed by Guyau, *Education and Heredity* (Engl. transl.), chap. i. Compare also Preyer, *op. cit.*, p. 267 f., and Compayré, *op. cit.*, p. 262.

'You *can* do it if you try'. Thus pilot-like she conducts the little navigator out into the open main of duty where he will have to steer himself.

I have tried to show that the moral training of children is not beyond human powers. It has its strong supports in child-nature, and these, when there are wisdom and method on the ruler's side, will secure success. I have not said that the trainer's task is easy. So far from thinking this, I hold that a mother who bravely faces the problem, neither abandoning the wayward will to its own devices, nor, hardly less weakly, handing over the task of disciplining it to a paid substitute, and who by well-considered and steadfast effort succeeds in approaching the perfection I have hinted at, combining the wise ruler with the tender and companionable parent, is among the few members of our species who are entitled to its reverence.

IX.

THE CHILD AS ARTIST.

ONE of the most interesting, perhaps also one of the most instructive, phases of child-life is the beginnings of art-activity. This has been recognised by one of the best-known workers in the field of child-psychology, M. Bernard Perez, who has treated the subject in an interesting monograph.[1] This department of our subject will, like that of language, be found to have interesting points of contact with the phenomena of primitive race-culture.

The art-impulse of children lends itself particularly well to observation. No doubt, as we shall see, there are difficulties for the observer here. It may sometimes be a fine point to determine whether a childish action properly falls under the head of genuine art-production, though I do not think that this is a serious difficulty. On the other hand, the art-impulse where it exists manifests itself directly and for the most part in so characteristic an objective form that we are able to study its features with special facility.

In its narrow sense as a specialised instinct prompting its possessor to follow a definite line of production, as drawing of the artistic sort, or simple musical composition, the art-impulse is a particularly variable phenomenon of childhood. Some children, who afterwards take seriously to a branch of art-culture, manifest an innate bent by a precocious devotion to this line of activity. Many others,

[1] *L'Art et la Poésie chez l'Enfant*, 1888.

I have reason to believe have a passing fondness for a particular form of art-activity. On the other hand, there are some children who display almost a complete lack, not only of the productive impulse, but of the æsthetic sense of the artist. So uncertain, so sporadic are these appearances of a rudimentary art among children that one might be easily led to think that art-activity ought not to be reckoned among their common characteristics.

To judge so however, would be to judge erroneously by applying grown-up standards. It is commonly recognised that art and play are closely connected. It is probable that the first crude art of the race, or at least certain directions of it, sprang out of play-like activities, and however this be the likenesses of the two are indisputable. I shall hope to bring these out in the present study. This being so, we are, I conceive, justified in speaking of art-impulses as a common characteristic of childhood.

Although we shall find many interesting points of analogy between crude child-art and primitive race-art, we must not, as pointed out above, expect a perfect parallelism. In some directions, as drawing, concerted dancing, the superior experience, strength and skill of the adult will reveal themselves, placing child-art at a considerable disadvantage in the comparison. Contrariwise, the intervention of the educator's hand tends seriously to modify the course of development of the child's æsthetic aptitudes. His tastes get acted upon from the first and biassed in the direction of adult tastes.

This modifying influence of education shows itself more especially in one particular. There is reason to think that in the development of the race the growth of a feeling for what is beautiful was a concomitant of the growth of the art-impulse, the impulse to adorn the person, to collect feathers and other pretty things. Not so in the case of the child. Here we note a certain growth of the liking for pretty things before the spontaneous art-impulse has had time to manifest itself. Most children who have a cultivated mother

or other guardian acquire a rudimentary appreciation of what their elders think beautiful before they do much in the way of art-production. We provide them with toys, pictures, we sing to them and perhaps we even take them to the theatre, and so do our best to inoculate them with our ideas as to what is pretty. Hence the difficulty—probably the chief difficulty—of finding out what the child-mind, left to itself, does prefer. At the same time the early date at which such æsthetic preferences begin to manifest themselves makes it desirable to study them before we go on to consider the active side of child-art. We will try as well as we can to extricate the first manifestations of genuine childish taste.

First Responses to Natural Beauty.

At the very beginning, before the educational influence has had time to work, we can catch some of the characteristics of this childish quasi-æsthetic feeling. The directions of a child's observation, and of the movements of his grasping arms, tell us pretty clearly what sort of things attract and please him.

In the home scene it is bright objects, such as the fire-flame, the lamp, the play of the sunlight on a bit of glass or a gilded frame; out-of-doors, glistening water, a meadow whitened by daisies, the fresh snow mantle, later the moon and the stars, which seem to impart to the dawning consciousness the first hint of the world's beauty. Luminosity, brightness in its higher intensities, whether the bright rays reach the eye directly or are reflected from a lustrous surface, this makes the first gladness of the eye as it remains a chief source of the gladness of life.

The feeling for colour as such comes distinctly later. The first delight in coloured objects is hardly distinguishable from the primordial delight in brightness. This applies pretty manifestly to the brightly illumined, rose-red curtain which Preyer's boy greeted with signs of satisfaction at the age of twenty-three days, and it applies to later manifestations.

Thus Preyer found on experimenting with his boy towards the end of the second year as to his colour-discrimination that a decided preference was shown for the bright or luminous colours, red and yellow.[1] Much the same thing was observed by Miss Shinn in her interesting account of the early development of her niece's colour-sense.[2] Thus in the twenty-eighth month she showed a special fondness for the daffodils, the bright tints of which allured another and older maiden, and, alas! to the place whence all brightness was banished. About the same time the child conceived a fondness for a yellow gown of her aunt, strongly objecting to the substitution for it of a brown dress. Among the other coloured objects which captivated the eye of this little girl were a patch of white cherry blossom, and a red sun-set sky. Such observations might easily be multiplied. Whiteness, it is to be noted, comes, as we might expect, with bright partial colours, among the first favourites.[3]

At what age a child begins to appreciate the value of colour as colour, to like blue or red, for its own sake and apart from its brightness, it is hard to say. The experiments of Preyer, Binet, Baldwin, and others, as to the discrimination of colour, are hardly conclusive as to special likings, though Baldwin's plan of getting the child to reach out for colours throws a certain light on this point. According to Baldwin blue is one of the first colours to be singled out; but he does not tell us how the colours he used (which did not, unfortunately, include yellow—the child's favourite according to other observers) were related in point of luminosity.[4]

No doubt a child of three or four is apt to conceive a

[1] *Op. cit.*, p. 7 and p. 11 f.

[2] *Notes on the Development of a Child*, p. 91 ff.

[3] *Cf.* Perez, *L'Art et la Poésie chez l'Enfant*, p. 41 ff.

[4] See Baldwin's two articles on 'A New Method of Child-study' in *Science*, April, 1893, and his volume, *Mental Development in the Child and the Race*.

special liking for a particular colour which favourite he is wont to appropriate as 'my colour'. A collection of such perfectly spontaneous preferences is a desideratum in the study of the first manifestations of a feeling for colour. Care must be taken in observing these selections to eliminate the effects of association, and the unintentional influence of example and authority as when a child takes to a particular colour because it is 'mamma's colour.' that is, the one she appears to affect in her dress and otherwise.

The values of the several colours probably disclose themselves in close connexion with that of colour-contrast. Many of the likings of a child of three in the matter of flowers, birds, dresses, and so on, are clearly traceable to a growing pleasure in colour-contrast. Here again we must distinguish between a true chromatic and a merely luminous effect. The dark blue sky showing itself in a break in the white clouds, one of the coloured spectacles which delighted Miss Shinn's niece, may have owed much of its attractiveness to the contrast of light and dark. It would be interesting to experiment with children of three with a view to determine whether and how far chromatic contrast pleases when it stands alone, and is not supported by that of chiaroscuro.

I have reason to believe that children, like the less cultivated adults, prefer juxtapositions of colours which lie far from one another in the colour-circle, as blue and red or blue and yellow. It is sometimes said that the practice and the history of painting show blue and red to be a more pleasing combination than that of the complementary colours, blue and yellow. It would be well to test children's feeling on this matter. It would be necessary in this inquiry to see that the child did not select for combination a particular colour as blue or yellow for its own sake, and independently of its relation to its companion—a point not very easy to determine. Care would have to be taken to eliminate further the influence of authority as operating, not only by instructing the child what combinations are best, but by

setting models of combination, in the habitual arrangements of dress and so forth. This too would probably prove to be a condition not easy to satisfy.[1]

I have dwelt at some length on the first germs of colour-appreciation, because this is the one feature of the child's æsthetic sense which has so far lent itself to definite experimental investigation. It is very different when we turn to the first appreciation of form. That little children have their likings in the matter of form, is, I think, indisputable, but they are not those of the cultivated adult. A quite small child will admire the arch of a rainbow, and the roundness of a kitten's form, though in these instances the delight in form is far from pure. More clearly marked is the appreciation of pretty graceful movements, as a kitten's boundings. Perhaps the first waking up to the graces of form takes place in connexion with this delight in the forms of motion, a delight which at first is a mixed feeling, involving the interest in all motion as suggestive of life, to which reference has already been made. Do not all of us, indeed, tend to translate our impressions of still forms back into these first impressions of the forms of motion?

One noticeable feature in the child's first response to the attractions of form is the preference given to 'tiny' things. The liking for small natural forms, birds, insects, shells, and so forth, and the prominence of such epithets as 'wee,' 'tiny' or 'teeny,' 'dear little,' in the child's vocabulary alike illustrate this early direction of taste. This feeling again is a mixed one; for the child's interest in very small fragile-looking things has in it an element of caressing tenderness which again contains a touch of fellow-feeling. This is but one illustration of the general rule of æsthetic development in the case of the individual and of the race alike

[1] The influence of such authority is especially evident in the selection of harmonious shades of colour for dress, etc. *Cf.* Miss Shinn, *op. cit.*, p. 95

that a pure contemplative delight in the aspect of things only gradually detaches itself from a mixed feeling.

If now we turn to the higher aspects of form, regularity of outline, symmetry, proportion, we encounter a difficulty. Many children acquire while quite young and before any formal education commences a certain feeling for regularity and symmetry. But is this the result of a mere observation of natural or other forms? Here the circumstances of the child become important. He lives among those who insist on these features in the daily activities of the home. In laying the cloth of the dinner-table, for example, a child sees the regular division of space enforced as a law. Every time he is dressed, or sees his mother dress, he has an object-lesson in symmetrical arrangement. And so these features take on a kind of ethical rightness before they are judged as elements of æsthetic value. As to a sense of proportion between the dimensions or parts of a form, the reflexion that this involves a degree of intellectuality above the reach of many an adult might suggest that it is not to be expected from a small child; and this conjecture will be borne out when we come to examine children's first essays in drawing.

These elementary pleasures of light, colour, and certain simple aspects of form, may be said to be the basis of a crude perception of beauty in natural objects and in the products of human workmanship. A quite small child is capable of acquiring a real admiration for a beautiful lady, in the appreciation of which brightness, colour, grace of movement, the splendour of dress, all have their part, while the charm for the eye is often reinforced by a sweet and winsome quality of voice. Such an admiration is not perfectly æsthetic: awe, an inkling of the social dignity of dress,[1] perhaps a longing to be embraced by the charmer, may all enter into it: yet a delight in the look of a thing for

[1] On the nature of the early feeling for dress see Perez, *L'Art et la Poésie chez l'Enfant.*

its own sake is the core of the feeling. In other childish admirations, as the girl's enthusiastic worship of the newly arrived baby, we see a true æsthetic sentiment mingled with and struggling, so to speak, to extricate itself from such 'interested' feelings as sense of personal enrichment by the new possession and of family pride. In the likings for animals, again, which often take what seem to us capricious and quaint directions, we may see rudiments of æsthetic perceptions half hidden under a lively sense of absolute lordship tempered with affection.

Perhaps the nearest approach to a pure æsthetic enjoyment in these first experiences is the love of flowers. The wee round wonders with their mystery of velvety colour are well fitted to take captive the young eye. I believe most children who live among flowers and have access to them acquire something of this sentiment, a sentiment of admiration for beautiful things with which a sort of dumb childish sympathy commonly blends. No doubt there are marked differences among children here. There are some who care only, or mainly, for their scent, and the strong sensibilities of the olfactory organ appear to have a good deal to do with early preferences and prejudices in the matter of flowers.[1] Others again care for them mainly as a means of personal adornment, though I am disposed to think that this partially interested fondness is less common with children than with many adults. It is sometimes said that the love of flowers is, in the main, a characteristic of girls. I think however that if one takes children early enough, before a consciousness of sex and of its proprieties has been allowed to develop under education, the difference will be but slight. Little boys of four or thereabouts often show a very lively sentiment of admiration for these gems of the plant world.

In much of this first crude utterance of the æsthetic sense of the child we have points of contact with the first

[1] See Perez, *L'Art et la Poésie chez l'Enfant*, p. 90 f.

manifestations of taste in the race. Delight in bright glistening things, in gay tints, in strong contrasts of colour, as well as in certain forms of movement, as that of feathers —the favourite personal adornment—this is known to be characteristic of the savage and gives to his taste in the eyes of civilised man the look of childishness. On the other hand it is doubtful whether the savage attains to the sentiment of the child for the beauty of flowers. Our civilised surroundings, meadows and gardens, as well as the constant action of the educative forces of example, soon carry the child beyond the savage in this particular.

How far can children be said to have the germ of a feeling for nature, or, to use the more comprehensive modern term, cosmic emotion? It is a matter of common observation that they have not the power to embrace a multitude of things in a single act of contemplation. Hence they have no feeling for landscape as a harmonious complex of picturesquely varied parts. When they are taken to see a 'view' their eye instead of trying to embrace the whole, as a fond parent desires, provokingly pounces on some single feature of interest, and often one of but little æsthetic value. People make a great mistake in taking children to 'points of view' under the supposition that they will share in grown people's impressions. Perez relates that some children taken to the Pic du Midi found their chief pleasure in scrambling up the peak and saying that they were on donkeys.[1] Mere magnitude or vastness of spectacle does not appeal to the child, for a sense of the sublime grows out of a complex imaginative process which is beyond his young powers. So far as immensity affects him at all, as in the case of the sea, it seems to excite a measure of dread in face of the unknown; and this feeling, though having a certain kinship with the emotion of sublimity, is distinct from this last. It has nothing of the joyous consciousness of expansion which enters into the later feeling.

[1] *Op. cit.*, p. 103.

It is only to certain limited objects and features of nature that the child is æsthetically responsive. He knows the loveliness of the gilded spring meadow, the fascination of the sunlit stream, the awful mystery of the wood, and something too perhaps of the calming beauty of the broad blue sky. That is to say, he has a number of small rootlets which when they grow together will develop into a feeling for nature.

Here, too, the analogy between the child and the uncultured nature-man is evident. The savage has no æsthetic sentiment for nature as a whole, though he may feel the charm of some of her single features, a stream, a mountain, the star-spangled sky, and may even be affected by some of the awful aspects of her changing physiognomy. Are we not told, indeed, that a true æsthetic appreciation of the picturesque variety of nature's scenes of the weird charm of wild places, and of the sublime fascinations of the awful and repellent mountain, are quite late attainments in the history of our race?[1]

Early Attitude towards Art.

We may now look at the child's attitude towards those objects and processes of human art which from the first form part of his environment and make an educative appeal to his senses; and here we may begin with those simple musical effects which follow up certain impressions derived from the natural world.

It has been pointed out that sounds form a chief source of the little child-heart's first trepidations. Yet this prolific cause of disquietude, when once the first alarming effect of strangeness has passed, becomes a main source of interest and delight. Some of nature's sounds, as those of running water, and of the wind, early catch the ear, and excite

[1] An excellent sketch of the growth of our feeling for the romantic and sublime beauty of mountains is given by Mr. Leslie Stephen in one of the most delightful of his works, *The Playground of Europe*.

wonder and curiosity. Miss Shinn illustrates fully in the case of her niece how the interest in sounds developed itself in the first years.[1] This pleasure in listening to sounds and in tracing them to their origin forms a chief pastime of babyhood.

Æsthetic pleasure in sound begins to be differentiated out of this general interest as soon as there arises a comparison of qualities and a development of preferences. Thus the sound of metal (when struck) is preferred to that of wood or stone. A nascent feeling for musical quality thus emerges which probably has its part in many of the first likings for persons; certain pitches, as those of the female voice, and possibly timbres being preferred to others.

Quite as soon, at least, as this feeling for quality of sound or tone, there manifests itself a crude liking for rhythmic sequence. It is commonly recognised that our pleasure in regularly recurring sounds is instinctive, being the result of our whole nervous organisation. We can better adapt successive acts of listening when sounds follow at regular intervals, and the movements which sounds evoke can be much better carried out in a regular sequence. The infant shows us this in his well-known liking for well-marked rhythms in tunes which he accompanies with suitable movements of the arms, head, etc.

The first likings for musical composition are based on this instinctive feeling for rhythm. It is the simple tunes, with well-marked easily recognisable time-divisions, which first take the child's fancy, and he knows the quieting and the exciting qualities of different rhythms and times. Where rhythm is less marked, or grows highly complex, the motor responses being confused, the pleasurable interest declines. It is the same with the rhythmic qualities of verses. The jingling rhythms which their souls love are of simple structure, with short feet well marked off, as in the favourite, 'Jack and Gill'.

[1] *Op cit.*, p. 115 ff.

Coming now to art as representative we find that a child's æsthetic appreciation waits on the growth of intelligence, on the understanding of artistic representation as contrasted with a direct presentation of reality.

The development of an understanding of visual representation or the imaging of things has already been touched upon. As Perez points out, the first lesson in this branch of knowledge is supplied by the reflexions of the mirror, which, as we have seen, the infant begins to take for realities, though he soon comes to understand that they are not tangible realities. The looking-glass is the best means of elucidating the representative function of the image or 'Bild' just because it presents this image in close proximity to the reality, and so invites direct comparison with this.

In the case of pictures where this direct comparison is excluded we might expect a less rapid recognition of the representative function. Yet children show very early that picture-semblances are understood in the sense that they call forth reactions similar to those called forth by realities. A little boy was observed to talk to pictures at the end of the eighth month. This perhaps hardly amounted to recognition. Pollock says that the significance of pictures "was in a general way understood" by his little girl at the age of thirteen months.[1] Miss Shinn tells us that her niece, at the age of forty-two weeks, showed the same excitement at the sight of a life-size painting of a cat as at that of real cats.[2] Ten months is also given me by a lady as the date at which her little boy recognised pictures of animals by naming them 'bow-wow,' etc., without being prompted.

This early recognition of pictures is certainly remarkable even when we remember that animals have the germ of it. The stories of recognition by birds of paintings of birds, and by dogs of portraits of persons, have to do with fairly

[1] *Mind*, iii., p. 393.

[2] *Notes on the Development of a Child*, i., p. 71 f.

large and finished paintings.[1] A child, however, will 'recognise' a small and roughly executed drawing. He seems in this respect to surpass the powers of savages, some of whom, at least, are said to be slow in recognising pictorial semblances. This power, which includes a delicate observation of form and an acute sense of likeness, is seen most strikingly in the recognition of individual portraits. Miss Shinn's niece in her fourteenth month picked out her father's face in a group of nine, the face being scarcely more than a quarter of an inch in diameter.[2] I noticed the same fineness of recognition in my own children.

One point in this early observation of pictures is curious enough to call for especial remark. A friend of mine, a psychologist, writes to me that his little girl, aged three and a half, "does not mind whether she looks at a picture the right way up or the wrong; she points out what you ask for, eyes, feet, hands, tail, etc., about equally well whichever way up the picture is, and never asks to have it put right that she may see it better". The same thing was noticed in the other children of the family, and the mother tells me that her mother observed it in her children. I have found a further illustration of this indifference to the position of a picture in the two children of another friend of mine. Professor Petrie tells me that he once watched an Arab boy looking at a picture-book. One, a drawing of horses and chariot, happened to have a different position from the rest, so that the book being held as before, the horses seemed to be going upwards; but the boy was not in the least incommoded, and without attempting to turn the book round easily made it out. These facts are curious as illustrating the skill of the young eye in deciphering. They may possibly have a further significance as showing how what we call position—the arrangement of a form in

[1] See Romanes, *Animal Intelligence*, pp. 311 and 453 ff. The only exception is a photograph which is said to have been 'large,' p. 453.

[2] *Op. cit.*, i., p. 74.

relation to a vertical line—is a comparatively artificial view of which a child as yet takes little if any account. He may be able to concentrate his attention so well on form proper that he is indifferent to the point how the form is placed. Yet this matter is one which well deserves further investigation.[1]

A further question arises as to whether this 'recognition' of pictures by children towards the end of the first year necessarily implies a grasp of the idea of a picture, that is, of a representation or copy of something. The first reactions of a child, smiling, etc., on seeing mirror-images and pictures, do not seem to show this, but merely that he is affected much as he would be by the presence of the real object, or, at most, that he recognises the picture as a kind of thing. The same is, I think, true of the so-called recognition of pictures by animals.

That children do not, at first, seize the pictorial or representative function is seen in the familiar fact that they will touch pictures as they touch shadows and otherwise treat them as if they were tangible realities. Thus Pollock's little girl attempted to smell at the trees in a picture and pretended ' to feed some pictorial dogs.

When the first clear apprehension of the pictorial function is reached, it is difficult to say. Miss Shinn thought that her niece "understood the purport of a picture quite well" at the age of forty-five weeks. She draws this conclusion from the fact that at this date the child in answer to the question 'Where are the flowers?' leaned over and touched the painted flowers on her aunt's gown, and then looked out to the garden with a cry of desire.[2] But this inference seems to me very risky. All that the child's behaviour proves is that she 'classed' real and painted flowers together, while she recog-

[1] Professor Petrie reminds me that a like absence of the perception of position shows itself in the way in which letters are drawn in early Greek and Phœnician writings.

[2] *Op. cit.*, i., p. 72,

nised the superiority of the former as the tangible and probably the odorous ones. The strongest evidence of recognition of pictorial function by children is, I think, their ability to recognise the portrait of an individual. But even this is not quite satisfactory. It is conceivable, at least, that a child may look on a photograph of his father as a kind of 'double'. The boy C., as I have remarked above, seemed to think of being photographed as a doubling. The story of the dog, a Dandy Dinmont terrier, that trembled and barked at a portrait of his dead mistress[1] seems to me to bear this out. It would surely be rather absurd to say that the demonstrations of this animal, whatever they may have meant, prove that he took the portrait to be a memento-likeness of his dead mistress.

We are apt to forget how difficult and abstract a conception is that of pictorial representation, how hard it is to look at a thing as pure semblance having no value in itself, but only as standing for something else. A like slowness on the part of the child to grasp a sign, as such, shows itself here as in the case of verbal symbols. Children will, quite late, especially when feeling is aroused and imagination specially active, show a disposition to transform the semblance into the thing. Miss Shinn herself points out that her niece, who seems to have been decidedly quick, was as late as the twenty-fifth month touched with pity by a picture of a lamb caught in a thicket, and tried to lift the painted branch that lay across the lamb. In her thirty-fifth month, again, when looking at a picture of a chamois defending her little one from an eagle, "she asked anxiously if the mamma would drive the eagle away, and presently quite simply and unconsciously placed her little hand edgewise on the picture so as to make a fence between the eagle and the chamois".[2] Such ready confusion of pictures with realities shows itself in the fourth year and later. A boy nearly

[1] Romanes, *op. cit.*, p. 453.

[2] *Op. cit.*, ii., p. 104.

five was observed to strike at the figures in a picture and to exclaim: "I can't break them". The Worcester Collection of observations illustrates the first confused idea of a picture. "One day F., a boy of four, called on a friend, Mrs. C., who had just received a picture, representing a scene in winter, in which people were going to church, some on foot and others in sleighs. F. was told whither they were going. The next day he came and noticed the picture, and looking at Mrs. C. and then at the picture said: 'Why, Mrs. C., them people haven't got there yet, have they?'"

All this points, I think, to a slow and gradual emergence of the idea of representation or likeness. If a child is capable in moments of intense imagination of confusing his battered doll with a living reality, he may be expected to act similarly with respect to the fuller likeness of a picture. Vividness of imagination tends in the child as in the savage, and indeed in all of us, to invest a semblance with something of reality. We are able to control the illusory tendency and to keep it within the limits of an æsthetic semi-illusion; not so the child. Is it too fanciful to suppose that the belief of the savage in the occasional visits of the real spirit-god to his idol has for its psychological motive the impulse which prompts the child ever and again to identify his toys and even his pictures with the realities which they represent?

As might be expected this impulse to confuse representation and represented reality shows itself very distinctly in the first reception of dramatic spectacle. If you dress up as Father Christmas, your child, even though he is told that you are his father, will hardly be able to resist the illusion that your disguise so powerfully induces. Cuvier relates that a boy of ten on watching a stage scene in which troops were drawn up for action, broke out in loud protestations to the actor who was taking the part of the general, telling him that the artillery was wrongly placed,

and so forth.[1] This reminds one of the story of the sailors who on a visit to a theatre happened to see a representation of a mutiny on board ship, and were so excited that they rushed on the stage and took sides with the authorities in quelling the movement.

I believe that this same tendency to take art-representations for realities reappears in children's mental attitude towards stories. A story by its narrative form seems to tell of real events, and children, as we all know, are wont to believe tenaciously that their stories are true. I think I have observed a disposition in imaginative children to go beyond this, and to give present actuality to the scenes and events described. And this is little to be wondered at when one remembers that even grown people, familiar with the devices of art-imitation, tend now and again to fall into this confusion. Only a few days ago, as I was reading an account by a friend of mine of a perilous passage in an Alpine ascent, accomplished years ago, I suddenly caught myself in the attitude of proposing to shout out to stop him from venturing farther. A vivid imaginative realisation of the situation had made it for the moment a present actuality.

Careful observations of the first attitudes of the child-mind towards representative art are greatly needed. We should probably find considerable diversity of behaviour. The presence of a true art-feeling would be indicated by a special quickness in the apprehension of art-semblance as such.

In these first reactions of the young mind to the stimulus of art-presentation we may study other aspects of the æsthetic aptitude. Very quaint and interesting is the exacting realism of these first appreciations. A child is apt to insist on a perfect detailed reproduction of the familiar reality. And here one may often trace the fine observation of these early years. Listen, for example, to

[1] Quoted by Perez, *op. cit.*, p. 216.

the talk of the little critic before a drawing of a horse or a railway train, and you will be surprised to find how closely and minutely he has studied the forms of things. It is the same with other modes of art-representation. Perez gives an amusing instance of a boy, aged four, who when taken to a play was shocked at the anomaly of a chamber-maid touching glasses with her master on a *fête* day. "In our home," exclaimed the stickler for regularities, to the great amusement of the neighbours, "we don't let the nurse drink like that."[1] It is the same with story. Children are liable to be morally hurt if anything is described greatly at variance with the daily custom. Æsthetic rightness is as yet confused with moral rightness or social propriety, which, as we have seen, has its instinctive support in the child's mind in respect for custom.

Careful observation will disclose in these first frankly expressed impressions the special directions of childish taste. The preferences of a boy of four in the matter of picture-books tell us where his special interests lie, what things he finds pretty, and how much of a genuine æsthetic faculty he is likely to develop later on. Here, again, there is ample room for more careful studies directed to the detection of the first manifestations of a pure delight in things as beautiful, as charming at once the senses and the imagination.

The first appearances of that complex interest in life and personality which fills so large a place in our æsthetic pleasures can be best noted in the behaviour of the child's mind towards dramatic spectacle and story. The awful ecstatic delight with which a child is apt to greet any moving semblance carrying with it the look of life and action is something which some of us, like Goethe, can recall among our oldest memories. The old-fashioned moving 'Schattenbilder,' for which the gaudy but rigid pictures of the magic lantern are but a poor substitute, the

[1] *Op. cit.*, pp. 215, 216.

puppet-show, with what a delicious wonder have these filled the childish heart. And as to the entrancing, enthralling delight of the story—well Thackeray and others have tried to describe this for us.

Of very special interest in these early manifestations of a feeling for art is the appearance of a crude form of the two emotions to which all representations of life and character make appeal—the feeling for the comic, and for the tragic side of things. What we may call the adult's fallacy, the tendency to judge children by grown-up standards, frequently shows itself in an expectation that their laughter will follow the directions of ours. I remember having made the mistake of putting those delightful books, *Tom Sawyer* and *Huckleberry Finn*, into the hands of a small boy with a considerable sense of fun, and having been humiliated at discovering that there was no response. Children's fun is of a very elemental character. They are mostly tickled, I suspect, by the spectacle of some upsetting of the proprieties, some confusion of the established distinctions of rank. Dress, as we have seen, has an enormous symbolic value for the child's mind, and any confusion here is apt to be specially laughter-provoking. One child between three and four was convulsed at the sight of his baby bib fastened round the neck of his bearded sire. There is, too, a considerable element of rowdiness in children's sense of the comical, as may be seen by the enduring popularity of the spectacle of Punch's successful misdemeanours and bravings of the legal authority.

Since children are apt to take spectacles with an exacting seriousness, it becomes interesting to note how the two moods, realistic stickling for correctness, and rollicking hilarity at the sight of the disorderly, behave in relation one to another. More facts are needed on this point. It is probable that we have here to do in part with a permanent difference of temperament. There are serious matter-of-fact little minds which are shocked by a kind of spectacle or

narrative that would give boundless delight to a more elastic fun-loving spirit. But discarding these permanent differences of disposition, I think that in general the sense of fun, the delight in the topsy-turviness of things, is apt to develop later than the serious realistic attitude already referred to. Here, too, it is probable that the evolution of the individual follows that of the race: the solemnities of custom and ritual weigh so heavily at first on the savage-mind that there is no chance for sprightly laughter to show himself. However this be, most young children appear to be unable to appreciate true comedy where the incongruous co-exists with and takes on one half of its charm from serious surroundings. Their laughter is best called forth by a broadly farcical show in which all serious rules are set at nought.

Of no less interest in this attitude of the child-mind towards the representations by art of human character and action are the first rude manifestations of the feeling for the tragic side of life. A child of four or six is far from realising the divine necessity which controls our mortal lives. Yet he will display a certain crude feeling for thrilling situation, exciting adventure, and something, too, of a sympathetic interest in the woes of mortals, quadrupeds as well as bipeds. The action, the situation, may easily grow too painful for an imaginative child disposed to take all representative spectacle as reality: yet the absorbing interest of the action where the sadness is bearable attests the early development of that universal feeling for the sorrowful fatefulness of things which runs through all imaginative writings from the 'penny dreadful' upwards.

Beginnings of Art-production.

We have been trying to catch the first faint manifestations of æsthetic feeling in children's contemplative attitude towards natural objects and the presentations of art. We may now pass to what is a still more interesting department of

childish æsthetics, their first rude attempts at art-production. We are wont to say that children are artists in embryo, that in their play and their whole activity they manifest the germs of the art-impulse. In order to see whether this idea is correct we must start with a clear idea of what we mean by art-activity.

I would define art-activity as including all childish doings which are consciously directed to an external result recognised as beautiful, as directly pleasing to sense and imagination. Thus a gesture, or an intonation of voice, which is motived by a feeling for what is 'pretty' or 'nice' is a mode of art-activity as much as the production of a more permanent æsthetic object, as a drawing.

Now if we look at children's activity we shall find that though much of it implies a certain germ of æsthetic feeling it is not pure art-activity. In the love of personal adornment, for example, we see, as in the case of savages, the æsthetic motive subordinated to another and personal or interested feeling, vanity or love of admiration. On the other hand, in children's play, which undoubtedly has a kinship with art, we find the æsthetic motive, the desire to produce something beautiful, very much in the background. We have then to examine these primitive forms of activity so as to try to disengage the genuine art-element.

One of the most interesting of these early quasi-artistic lines of activity is that of personal adornment. The impulse to study one's appearance seems to reach far down in animal life. The animal's care of its person is supported by two instincts, the impulse to frighten or overawe others, and especially those who are, or are likely to be, enemies, illustrated in the raising of feathers and hair so as to increase size; and the impulse to attract, which probably underlies the habit of trimming feathers and fur among birds and quadrupeds. These same impulses are said to lie at the root of the elaborate art of personal adornment developed by savages. The anthropologist divides such

ornament into alluring and alarming, 'Reizschmuck' and 'Schreckschmuck'.[1]

In the case of children's attention to personal appearance there is no question of tracing out the workings of a pure instinct. The care of the person is before all other things inculcated and enforced by others, and forms, indeed, a main branch of the nursery training. To a mother, as is perfectly natural, a child is apt to present himself as the brightest of the household ornaments, which has to be kept neat and spotless with even greater care than the polished table and other pretty things. This early drilling is likely to be unpleasant. Many children resent at first not only soap and water and the merciless comb, but even arrayings in new finery. Adornment is forced on the child before the instinct has had time to develop itself, and the manner of the adornment does not always accommodate itself to the natural inclinations of the childish eye. Hence the familiar fact that with children the care of personal appearance when it is developed takes on the air of a respect for law. It is more than half a moral feeling, a readiness to be shocked at a breach of a custom enforced from the first by example and precept.

Again, the instinct of adornment in the child is often opposed by other impulses. I have already touched on a small child's feeling of uneasiness at seeing his mother in new apparel. A like apprehensiveness shows itself in relation to his own dress. Many little children show a marked dislike to new raiment. As I have remarked above, a change of dress probably disturbs and confuses their sense of personality.

In spite, however, of these and other complicating circumstances I believe that the instinct to adorn the person is observable in children. They like a bit of finery in the shape of a string of beads or of daisies for the neck, a feather for the hat, a scrap of brilliantly coloured ribbon or

[1] See Grosse, *Die Anfänge der Kunst*, pp. 106, 107.

cloth as a bow for the dress, and so forth. Imitation, doubtless, plays a part here, but it is, I think, possible to allow for this, and still to detect points of contact with the savage's love of finery. Perhaps, indeed, we may discern the play of both the impulses underlying personal ornament which were referred to above, *viz.*, the alluring and alarming. Allowing for the differences of intelligence, of sexual development and so forth, we may say that children betray a rudiment of the instinct to win admiration by decorating the person, and also of the instinct to overawe. A small boy's delight in adding to his height and formidable appearance by donning his father's tall hat is pretty certainly an illustration of this last.

This is not the place to inquire whether the love of finery in children—a very variable trait, as M. Perez and others have shown—is wholly the outcome of vanity. I would, however, just remark that a child lost in the vision of himself reflected in a mirror decked out in new apparel may be very far from feeling vanity as we understand the word. The pure child-wonder at what is new and mysterious may at such a moment overpower other feelings, and make the whole mental condition one of dream-like trance.

Since children are left so little free to deck themselves, it is of course hard to study the development of æsthetic taste in this domain of art-like activity. Yet the quaint attempts of the child to improve his appearance throw an interesting light on his æsthetic preferences. He is at heart as much a lover of glitter, of gaudy colour, as his savage prototype. With this general crudity of taste, individual differences soon begin to show themselves, a child developing a marked bent, now to modest neatness and refinement, now to gaudy display, and this, it may be, in direct opposition to the whole trend of home influence.[1]

[1] The whole subject of the attitude of the child-mind towards dress and ornament is well dealt with by Perez, *op. cit.*, chap. i.

Another and closely connected domain of activity which is akin to art is the manifestation of grace and charm in action. Much of the beauty of movement, of gesture, of intonation, in a young child may be unconscious, and as much a result of happy physical conditions as the pretty gambols of a kitten. Yet one may commonly detect in graceful children the rudiment of an æsthetic feeling for what is nice, and also of the instinct to please. There is, indeed, in these first actions and manners, into which stupid conventionality has not yet imported all kinds of awkward restraints, as when the little girl M. would kiss her hand spontaneously to other babies as she passed them in the street, something of the simple grace and dignity of the more amiable savages. Now a feeling for what is graceful in movement, carriage, speech and so forth is no clear proof of a specialised artistic impulse: yet it attests the existence of a rudimentary appreciation of what is beautiful, as also of an impulse to produce this.

In the forms of childish activity just referred to we have to do with mixed impulses in which the true art-element is very imperfectly represented. There is a liking for pretty effect, and an effort to realise it, only the effect is not prized wholly for its own sake, but partly as a means of winning the smile of approval. The true art-impulse is characterised by the love of shaping beautiful things for their own sake, by an absorbing devotion to the process of creation, into which there enters no thought of any advantage to self, and almost as little of benefiting others. Now there is one field of children's activity which is marked by just this absorption of thought and aim, and that is play.

To say that play is art-like has almost become a commonplace. Any one can see that when children are at play they are carried away by pleasurable activity, are thinking of no useful result but only of the pleasure of the action itself. They build their sand castles, they pretend to keep shop, to entertain visitors, and so forth, for the sake of the

enjoyment which they find in these actions. This clearly involves one point of kinship with the artist, for the poet sings and the painter paints because they love to do so. It is evident, moreover, from what was said above on the imaginative side of play that it has this further circumstance in common with art-production, that it is the bodying forth of a mental image into the semblance of outward life. Not only so, play exhibits the distinction between imitation and invention — the realistic and the idealistic tendency in art—and in its forms comes surprisingly near representing the chief branches of art-activity. It thus fully deserves to be studied as a domain in which we may look for early traces of children's artistic tendencies.

If by play we understand all that spontaneous activity which is wholly sustained by its own pleasurableness, we shall find the germ of it in those aimless movements and sounds which are the natural expression of a child's joyous life. Such outpourings of happiness have a quasi-æsthetic character in so far as they follow the rhythmic law of all action. Where the play becomes social activity, that is, the concerted action of a number, we get something closely analogous to those primitive harmonious co-ordinations of movements and sounds in which the first crude music, poetry and dramatic action of the race are supposed to have had their common origin.

Such naïve play-activity acquires a greater æsthetic importance when it becomes significant or representative of something: and this direction appears very early in child-history. The impulse to imitate the action of another seems to be developed before the completion of the first half-year.[1] In its first crude form, as reproducing a gesture or sound uttered at the moment by another, it enters into the whole

[1] Preyer places the first imitative movement in the fourth month (*op. cit.*, cap. 12). Baldwin, however, dates the first unmistakable appearance in the case of his little girl in the ninth month (*Mental Development*, p. 131).

of social or concerted play. A number of children find the harmonious performance of a series of dance or other movements, such as those of the kindergarten games, natural and easy, because the impulse to imitate, to follow another's lead, at once prompts them and keeps them from going far astray.

It is a higher and more intellectual kind of imitation when a child recalls the idea of something he has seen done and reproduces the action. This is often carried out under the suggestive force of objects which happen to present themselves at the time, as when a child sees an empty cup and pretends to drink, or a book and simulates the action of reading out of it, or a pair of scissors and proceeds to execute snipping movements. In other cases the imitation is more spontaneous, as when a child recalls and repeats some funny saying that he has heard.

This imitative action grows little by little more complex, and in this way a prolonged make-believe action may be carried out. Here, it is evident, we get something closely analogous to histrionic performance. A child pantomimically representing some funny action comes, indeed, very near to the mimetic art of the comedian.

Meanwhile, another form of imitation is developing, *viz.*, the production of semblances in things. Early illustrations of this impulse are the making of a river out of the gravy in the plate, the pinching of pellets of bread till they take on something of resemblance to known forms. One child, three years old, once occupied himself at table by turning his plate into a clock, in which his knife (or spoon) and fork were made to act as hands, and cherry stones put round the plate to represent the hours. Such table-pastimes are known to all observers of children, and have been prettily touched on by R. L. Stevenson.[1]

These formative touches are, at first, rough enough, the transformation being effected, as we have seen, much more by the alchemy of the child's imagination than by

[1] *Virginibus Puerisque*, 'Child's Play'.

the cunning of his hands. Yet, crude as it is, and showing at first almost as much of chance as of design, it is a manifestation of the same plastic impulse, the same striving to produce images or semblances of things, which possesses the sculptor and the painter. In each case we see a mind dominated by an idea and labouring to give it outward embodiment. The more elaborate constructive play which follows, the building with sand and with bricks, with which we may take the first spontaneous drawings, are the direct descendant of this rude formative activity. The kindergarten occupations, most of all the clay-modelling, make direct appeal to this half-artistic plastic impulse in the child.

In this imitative play we may note the artistic tendency to set forth what is characteristic in the things represented. Thus in the acting of the nursery the nurse, the coachman and so forth are given by one or two broad touches, such as the presence of the medicine-bottle or its semblance, or of the whip, together, perhaps, with some characteristic manner of speaking. In this way child-play, like primitive art, shows a certain unconscious selectiveness. It presents what is constant and typical, imperfectly enough no doubt. The same selection of broadly distinctive traits is seen where some individual seems to be represented. There is a precisely similar tendency to a somewhat bald typicalness of outline in the first rude attempts of children to form semblances. This will be fully illustrated presently when we examine their manner of drawing.

As observation widens and grows finer, the first bald abstract representation becomes fuller and more life-like. A larger number of distinctive traits is taken up into the representation. Thus the coachman's talk becomes richer, fuller of reminiscences of the stable, etc., and so colour is given to the dramatic picture. A precisely similar process of development is noticeable in the plastic activities. The first raw attempt to represent house or castle is improved upon, and the image grows fuller of characteristic detail and

more life-like. Here, again, we may note the parallelism between the evolution of play-activity and of primitive art.

This movement away from bare symbolic indication to concrete pictorial representation involves a tendency to individualise, to make the play or the shapen semblance life-like in the sense of representing an individual reality. Such individual concreteness may be obtained by a mechanical reproduction of some particular action and scene of real life, and children in their play not infrequently attempt a faithful recital or portraiture of this kind. Such close unyielding imitation shows itself, too, now and again in the attempt to act out a story. Yet with bright fanciful children the impulse to give full life and colour to the performance rarely stops here. Fresh individual life is best obtained by the aid of invention, by the intervention of which some new scene or situation, some new grouping of personalities is realised. Nothing is æsthetically of more interest in children's play than the first cautious intrusion into the domain of imitative representation of this impulse of invention, this desire for the new and fresh as distinct from the old and customary. Perhaps, too, there is no side of children's play in which individual differences are more clearly marked or more significant than this. The child of bold inventive fancy is shocking to his companion whose whole idea of proper play is a servile imitation of the scenes and actions of real life. Yet the former will probably be found to have more of the stuff of which the artist is compacted.

All such invention, moreover, since it aims at securing some more vivacious and stirring play-experience, naturally comes under the influence of the childish instinct of exaggeration. I mean by this the untaught art of vivifying and strengthening a description or representation by adding touch to touch. In the representations of play, this love of colour, of strong effect, shows itself now in a piling up of the beautiful, gorgeous, or wonderful, as when trying to act

some favourite scene from fairy-story, or some grand social function, now in a bringing together of droll or pathetic incidents so as to strengthen the comic or the tragic feeling of the play-action. In all this—which has its counterpart in the first crude attempts of the art of the race to break the tight bonds of a servile imitation—we have, I believe, the germ of what in our more highly developed art we call the idealising impulse.

I have, perhaps, said enough to show that children's play is in many respects analogous to art of the simpler kind, also that it includes within itself lines of activity which represent the chief directions of art-development.[1]

Yet though art-like this play is not fully art. In play a child is too self-centred, if I may so say. The scenes he acts out, the semblances he shapes with his hands, are not produced as having objective value, but rather as providing himself with a new environment. The peculiarity of all imaginative play, its puzzle for older people, is its contented privacy. The idea of a child playing as an actor is said to 'play' in order to delight others is a contradiction in terms. As I have remarked above, the pleasure of a child in what we call 'dramatic' make-believe is wholly independent of any appreciating eye. "I remember," writes R. L. Stevenson, "as though it were yesterday, the expansion of spirit, the dignity and self-reliance, that came with a pair of mustachios in burnt cork *even when there was none to see.*"[2] The same thing is true of concerted play. A number of children playing at being Indians, or what not, do not 'perform' *for* one another. The words 'perform,' 'act' and so forth all seem to be out of place here. What really occurs in this case is a conjoint vision of a new world, a conjoint imaginative realisation of a new life.

This difference between play and art is sometimes

[1] The telling of stories to other children does not, I conceive, fall under my definition of play. It is child-art properly so called.

[2] *Virginibus Puerisque*, 'Child's Play'.

pushed to the point of saying that art has its root in the social impulse, the wish to please.[1] This I think is simplifying too much. Art is no doubt a social phenomenon, as Guyau and others have shown. It has been well said that "an individual art—in the strictest sense—even if it were conceivable is nowhere discoverable".[2] That is to say the artist is constituted as such by a participation in the common consciousness, the life of his community, and his creative impulse is controlled and directed by a sense of common or objective values. Yet to say that art is born of the instinct to please or attract is to miss much of its significance. The ever-renewed contention of artists, 'art for art's sake,' points to the fact that they, at least, recognise in their art-activity something spontaneous, something of the nature of self-expression, self-realisation, and akin to the child's play.

May we not say, then, that the impulse of the artist has its roots in the happy semi-conscious activity of the child at play, the all-engrossing effort to 'utter,' that is, give outer form and life to an inner idea, and that the play-impulse becomes the art-impulse (supposing it is strong enough to survive the play-years) when it is illumined by a growing participation in the social consciousness, and a sense of the common worth of things, when, in other words, it becomes conscious of itself as a power of shaping semblances which shall have value for other eyes or ears, and shall bring recognition and renown? Or, to put it somewhat differently, may we not say that art has its twin-rootlets in the two directions of childish activity which we have considered, *viz.*, the desire to please so far as this expresses itself in dress, graceful action, and so forth, and the entrancing isolating impulse of play? However we express the relation, I feel sure that we must account for the origin of art by some reference to play. A study of the art of savages, more

[1] According to Mr. H. Rutgers Marshall art-activity takes its rise in the instinct to attract others (*Pain, Pleasure, and Æsthetics*).

[2] Grosse, *Anfänge der Kunst*, p. 48.

especially perhaps of the representations of fighting and hunting in their pantomime-dances, seems to show that art is continuous with play-activity.

To insist on this organic connexion between play and art is not to say that every lively player is fitted to become an art-aspirant. The artistic ambition implies too rare a complex of conditions for us to be able to predict its appearance in this way. It may, however, be thrown out as a suggestion to the investigator of the first manifestations of artistic genius that he might do well to cast his eye on the field of imaginative play. It will possibly be found that although not a romping riotous player, nor indeed much disposed to join other children in their pastimes, the original child has his own distinctive style of play, which marks him out as having more than other children of that impulse to dream of far-off things, and to bring them near in the illusion of outer semblance, which enters more or less distinctly into all art.

I have left myself no space to speak of the child's first attempts at art as we understand it. Some of this art-activity, more particularly the earliest weaving of stories, is characteristic enough to deserve a special study. I have made a small collection of early stories, and some of them are interesting enough to quote. Here is a quaint example of the first halting manner of a child of two and a half years as invention tries to get away from the sway of models: "Three little bears went out a walk and they found a stick, and they poked the fire with it, and they poked the fire and then went a walk". Soon, however, the young fancy is apt to wax bolder, and then we get some fine invention. A boy of five years and a quarter living at the sea-side improvised as follows. He related "that one day he went out on the sea in a lifeboat when suddenly he saw a big whale, and so he jumped down to catch it, but it was so big that he climbed on it and rode on it in the water, and all the little fishes laughed so".

With this comic story may be compared a more serious not to say tragic one from the lips of a girl one month younger, and characterised by an almost equal fondness for the wonderful. "A man wanted to go to heaven before he died. He said, 'I don't want to die, and I must see heaven!' Jesus Christ said he must be patient like other people. He then got *so* angry, and screamed out as loud as he could, and kicked up his heels as high as he could, and they (the heels) went into the sky, and the sky fell down and broke earth all to pieces. He wanted Jesus Christ to mend the earth again, but he wouldn't, so this was a good punishment for him." This last, which is the work of one now grown into womanhood and no longer a story-teller, is interesting in many ways. The wish to go to heaven without dying is, as I know, a motive derived from child-life. The manifestations of displeasure could, one supposes, only have been written by one who was herself experienced in the ways of childish 'tantrums'. The naïve conception of sky and earth, and lastly the moral issue of the story, are no less instructive.

These samples may serve to show that in the stories of by no means highly-gifted children we come face to face with interesting traits of the young mind, and can study some of the characteristic tendencies of early and primitive art.[1] Of the later efforts to imitate older art, as verse writing, the same cannot, I think, be said. Children's verses so far as I have come across them are poor and stilted, showing all the signs of the cramping effect of models and rules to which the child-mind cannot easily accommodate itself, and wanting all true childish inspiration. No doubt, even in these choking circumstances, childish feeling may now and again peep out. The first prose compositions, letters before all if they may be counted art, give more scope for the expression

[1] The child's feeling for climax shown in these is further illustrated in a charming story taken down by Miss Shinn, but unfortunately too long to quote here. See *Overland Monthly*, vol. xxiii., p. 19.

of a child's feeling and the characteristic movements of his thought, and might well repay study.[1]

There is one other department of this child-art which clearly does deserve to be studied with some care—drawing. And this for the very good reason that it is not wholly a product of our influence and education, but shows itself in its essential characteristics as a spontaneous self-taught activity of childhood which takes its rise, indeed, in the play-impulse. This will be the subject of the next essay.

[1] Perez deals with children's literary compositions in the work already quoted (chap. ix.). *Cf.* Paola Lombroso, *op. cit.*, cap. viii. and ix.

X.

THE YOUNG DRAUGHTSMAN.

First Attempts to Draw.

A CHILD'S first attempts at drawing are pre-artistic and a kind of play, an outcome of the instinctive love of finding and producing semblances of things illustrated in the last essay. Sitting at the table and covering a sheet of paper with line-scribble he is wholly self-centred, 'amusing himself,' as we say, and caring nothing about the production of "objective values".

Yet even in the early stages of infantile drawing the social element of art is suggested in the impulse of the small draughtsman to make his lines indicative of something to others' eyes, as when he bids his mother look at the 'man,' 'gee-gee,' or what else he fancies that he has delineated.[1] And this, though crude enough and apt to shock the æsthetic sense of the matured artist by its unsightliness, is closely related to art, forming, indeed, in a manner a preliminary stage of pictorial design.

We shall therefore study children's drawings as a kind of rude embryonic art. In doing this our special aim will be to describe and explain childish characteristics. This, again, will compel us to go to some extent into the early forms of observation and imagination. It will be found, I

[1] This indicative or communicative function of drawing has, we know, played a great part in the early stages of human history. Modern savages employ drawings in sand as a means of imparting information to others, *e.g.*, of the presence of fish in a lake (Von den Steinen, *Unter den Naturvölkern Zentral-Brasiliens*, Kap. x., s. 243 f.).

think, that the first crude drawings are valuable as throwing light on the workings of children's minds. Perhaps, indeed, it may turn out that these spontaneous efforts of the childish hand to figure objects are for the psychologist a medium of expression of the whole of child-nature, hardly less instructive than that of early speech.

In carrying out our investigation of children's drawings we shall need to make a somewhat full reference to the related phenomena, the drawings of modern savages and those of early art. While important points of difference will disclose themselves the resemblances are important enough to make a comparison not only profitable but almost indispensable.

I have thought it best to narrow the range of the inquiry by keeping to delineations of the human figure and of animals, especially the horse. These are the favourite topics of the child's pencil, and examples of them are easily obtainable.

As far as possible I have sought spontaneous drawings of quite young children, *viz.*, from between two and three to about six.[1] In a strict sense of course no child's drawing is absolutely spontaneous and independent of external stimulus and guidance. The first attempts to manage the pencil are commonly aided by the mother, who, moreover, is wont to present a model drawing, and, what is even more important at this early stage, to supply model-movements of the arm and hand. In most cases, too, there is some slight amount of critical inspection, as when she asks, 'Where is papa's nose?' 'Where is dóggie's tail?' Yet perfect spontaneity, even if obtainable, is not necessary here. The drawings of men and quadrupeds of a child of five and later disclose plainly enough the childish fashion, even though there has been some slight amount of elementary instruction. Hence I have not hesitated to make use of

[1] Only a few drawings of older children above seven have been included.

drawings sent me by kindergarten teachers. I may add that I have used by preference the drawings executed by children in elementary schools, as these appear to illustrate the childish manner with less of parental interference than is wont to be present in a cultured home.

A child's drawing begins with a free aimless swinging of the pencil to and fro, which movements produce a chaos of slightly curved lines. These movements are purely spontaneous, or, if imitative, are so only in the sense that they follow at a considerable distance the movements of the mother's pencil.[1] They may be made expressive or significant in two ways. In the first place, a child may by varying the swinging movements accidentally produce an effect which suggests an idea through a remote resemblance. A little boy when two years and two months, was one day playing in this wise with the pencil, and happening to make a sort of curling line, shouted with excited glee, 'Puff, puff!' *i.e.*, smoke. He then drew more curls with a rudimentary intention to show what he meant. In like manner when a child happens to bend his line into something like a closed circle or ellipse he will catch the faint resemblance to the rounded human head and exclaim, 'Mama!' or 'Dada!'

But intentional drawing or designing does not always arise in this way. A child may set himself to draw, and make believe that he is drawing something when he is scribbling. This is largely an imitative play-action following the direction of the movements of another's hand. Preyer speaks of a little girl who in her second year was asked when scribbling with a pencil what she was doing and answered 'writing houses'. She was apparently making believe that her jumble of lines represented houses.[2]

[1] E. Cooke gives illustrations of these in his thoughtful and interesting articles on "Art-teaching and Child-nature," published in the *Journal of Education*, Dec., 1885, and Jan., 1886.

[2] Preyer, *op. cit.*, p. 47.

Almost any scribble may in this earliest stage take on a meaning through the play of a vigorous childish imagination.

The same play of imagination is noticeable in the child's first endeavours to draw an object from memory when he is asked to do so. Thus a little girl in her fourth year referred to by Mr. E. Cooke when asked to draw a cat produced a longish irregularly curved line crossed by a number of shorter lines, which strange production she proceeded quite complacently to dignify by the name 'cat,' naming the whiskers, legs, and tail (Fig. 1 (*a*); compare the slightly fuller design in Fig. 1 (*b*)).[1]

Fig. 1 (*a*) and (*b*).

Here it is evident we have a phase of childish drawing which is closely analogous to the symbolism of language. The representation is arbitrarily chosen as a symbol and not as a likeness. This element of a non-imitative or symbolic mode of representation will be found to run through the whole of childish drawing.

Even this chaotic scribble shows almost from the beginning germs of formative elements, not merely in the fundamental line-elements, but also in the loops, and in the more abrupt changes of direction or angles. A tendency to draw a loop-like rudimentary contour soon emerges, and thus we get the transition to a possible outlining of objects. Miss Shinn gives a good example of an ovoid loop drawn by her niece in her hundred and ninth week.[2] With practice the child acquires by the second or third year the usual stock in trade of the juvenile draughtsman, and can draw a sort of straight line, curved lines, a roughish kind of circle or oval, as well as dots, and even fit lines together

[1] Taken from E. Cooke's articles already quoted, drawings 19 and 20.

[2] *Op. cit.*, pt. ii., p. 97; "fifty-sixth week" is, she informs me, an error for hundred and ninth week.

at angles.[1] When this stage is reached we begin to see attempts at real though rude likenesses of men, horses and so forth. These early essays are among the most curious products of the child-mind. They follow standards and methods of their own ; they are apt to get hardened into a fixed conventional manner which may reappear even in mature years. They exhibit with a certain range of individual difference a curious uniformity, and they have their parallels in what we know of the first crude designs of the untutored savage.

First Drawings of the Human Figure.

It has been wittily observed by an Italian writer on children's art that they reverse the order of natural creation in beginning instead of ending with man.[2] It may be added that they start with the most dignified part of this crown of creation, *viz.*, the human head. A child's first attempt to represent a man proceeds, so far as I have observed, by drawing the front view of his head. This he effects by means of a clumsy sort of circle with a dot or two thrown in by way of indicating features in general. A couple of lines may be inserted as a kind of support, which do duty for both trunk and legs. The circular or ovoid form is, I think, by far the most common. The square head in my collection appears only very occasionally and in children *at school*, who presumably have had some training in drawing horizontal and vertical lines. The accompanying

[1] I am much indebted to Mr. Cooke for the sight of a series of early scribbles of his little girl. *Cf.* Baldwin, *Mental Development*, chap. v., where some good examples of early line-tracing are given. According to Baldwin angles or zig-zag come early, and are probably due to the cramped, jerky mode of movement at this early stage. Preyer seems to me wrong in saying that children cannot manage a circular line before the end of the third year (*op. cit.*, p. 47). Most children who draw at all manage a loop or closed curved line before this date.

[2] Corrado Ricci, *L'Arte dei Bambini* (1887), p. 6.

example (Fig. 2) is the work of a Jamaica girl of five, kindly sent me by her teacher.

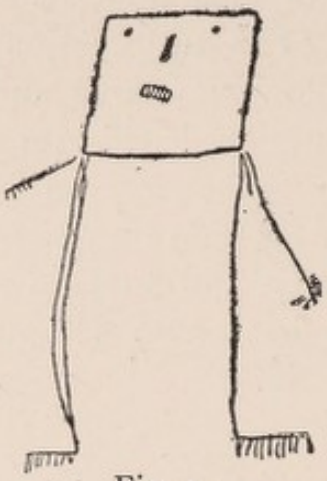

Fig. 2.

This first attempt to outline the human form is, no doubt, characterised by a high degree of arbitrary symbolism. The use of a rude form of circle to set forth the human head reminds one of the employment by living savage tribes of the same form as the symbol of a house or hut, a wreath, and so forth.[1] Yet there is a measure of resemblance even in this abstract symbolism: the circle does roughly resemble the contour of the head: as, indeed, the square or rectangle may be said less obviously to do when hair and whiskers and the horizontal line of the hat break the curved line.

But it is not the mere contour which represents the face: it is a circle picked out with features. These, however vaguely indicated, are an integral part of the facial scheme. This is illustrated in the fact that among the drawings by savages and others collected by General Pitt-Rivers, one, executed by an adult negro of Uganda, actually omits the contour, the human head being represented merely by an arrangement of dark patches and circles for eyes, ears, etc. (Fig. 3).[2]

Fig. 3.

Coming now to the mode of representing the features, we find at an early stage of this schematic delineation an attempt to differentiate and individualise features, not only by giving

[1] Von den Steinen, *op. cit.*, p. 247.

[2] These drawings, of the highest interest to the student of child-art as well as to the anthropologist, are to be seen in the General's Museum at Farnham (Dorset) (7th room).

definite position but by a rough imitation of form. Thus we get the vertical line as indicating the direction of the nose, the horizontal line that of the mouth, and either a rounded dot or a circular line as representative of the curved outline of the eye—whether that of the iris, of the visible part of the eyeball, or of the orbital cavity. A precisely similar scheme appears in the drawings of savages.[1]

At first the child is grandly indifferent to completeness in the enumeration of features. Even 'the two eyes, a nose and a mouth' are often imperfectly represented. Thus when dots are used we may have one or more specks ranging, according to M. Perez, up to five.[2] The use of a single dot for facial feature in general has its parallel in the art of savage tribes.[3] It is, however, I think, most common to introduce three dots in a triangular arrangement, presumably for eyes and mouth,—a device again which reappears in the art of uncivilised races.[4] Even when the young draughtsman has reached the stage of distinguishing the features he may be quite careless about number and completeness. Thus a feature may be omitted altogether. This funnily enough happens most frequently in the case of that one which seems to us 'grown-ups' most self-assertive and most resentful of indignity, *viz.*, the nose. These moon-faces with two eyes and a mouth are very common among the first drawings of children. The mouth, on the other hand, is much less frequently omitted. The same thing seems to hold good of the drawings of

[1] Schoolcraft has a good example of this facial scheme in the drawing of a man shooting (*The Indian Tribes of the United States*, i., pl. 48).

[2] *L'Art et la Poésie chez l'Enfant*, p. 186.

[3] For an illustration see Andree, *Eth. Parallelen und Vergleiche*, pl. 3, fig. 19.

[4] See for an example, Schoolcraft, iv., pl. 18.

savages.[1] The eyes are rarely omitted. The single dot may perhaps be said to stand for 'eye'. Some drawings of savages have the two eyes and no other feature, as in the accompanying example from Andree, plate 3 (Fig. 4 (*a*)). On the other hand, a child will, as we have seen, sometimes content himself with one eye. This holds good not only where the dot is used but after something like an eye-circle is introduced, as in the accompanying drawing by a Jamaica girl of seven (Fig. 4 (*b*)).

Fig. 4 (*a*).

Fig. 4 (*b*).

In these first attempts to sketch out a face we miss a sense of relative position and of proportion. It is astonishing what a child on first attempting to draw a human or animal form can do in the way of dislocation or putting things into the wrong place. The little girl mentioned by E. Cooke on trying, about the same age, to draw a cat from a model actually put the circle representing the eye outside that of the head. With this may be compared the drawings of Von den Steinen and other Europeans made by his Brazil Indian companions, in which what was distinctly said by the draughtsman to be the mous-

[1] According to Stanley Hall the nose comes after the mouth. This may be an approximate generalisation, but there are evidently exceptions to it. On the practice of savage draughtsmen see the Australian cave drawings in Andree, *op. cit.*, plate vi., Figs. 58, 59. *Cf.* the drawings of Brazilian tribes, plate iii., Fig. 15. In some cases there seems a preference for the nose, certain of the Brazilian drawings representing facial features merely by a vertical stroke.

tache was in more than one instance set above the eyes (Fig. 4 (*c*)). When dots are inserted in the linear scheme they are apt at first to be thrown in anyhow. The two eyes, I find, when these only are given, may be put one above the other as well as one by the side of the other, and both arrangements occur in the drawings of the same child. And much later when greater attention to position is observable there is a general tendency to put the group of features too high up, *i.e.*, to make the forehead or brain region too small in proportion to the chin region (*cf.* above, Fig. 2, p. 336).[1]

Fig. 4 (*c*).—Moustache = horizontal line above curve of cap.

The want of proportion is still more plainly seen in the treatment of the several features. The eye, as already remarked, is apt to be absurdly large. In the drawing of Mr. Cooke's little girl mentioned above it is actually larger than the head outside which it lies. This enlargement continues to appear frequently in later drawings, more particularly when one eye only is introduced, as in the accompanying drawing by a boy in his seventh year (Fig. 5 (*a*); *cf.* above, Fig. 4 (*b*)). The mouth is apt to be even more disproportionate, the child appearing to delight in making this appalling feature supreme, as in the following examples, both by boys of five

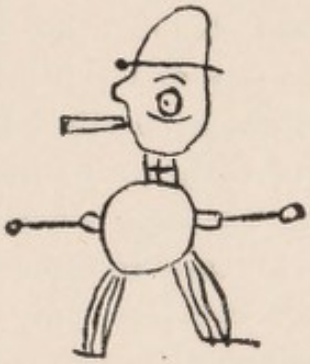

Fig. 5 (*a*).

[1] M. Passy calls attention to this in his interesting note on children's drawings, *Revue Philosophique*, 1891, p. 614 ff. I find however that though the error is a common one it is not constant.

(Fig. 5 (*b*) and (*c*)). The ear, when it is added, is apt to be enormous, and generally the introduction of new details as ears, hair, hands, is wont to be emphasised by an exaggeration of their magnitude.

Fig. 5 (*b*).

Fig. 5 (*c*).

Very interesting is the gradual artistic evolution of the features. Here, as in organic evolution, there is a process of specialisation, the primordial indefinite form taking on more of characteristic complexity. In the case of the eye, for example, we may often trace a gradual development, the dot being displaced by a small circle or ovoid, this last supplemented by a second circle outside the first,[1] or by one or by two arches, the former placed above, the latter above and below the circle. The form remains throughout an abstract outline or scheme, there being no attempt to draw even the lines—*e.g.*, those of the lid-margins—correctly, or to indicate differences of light and dark, save in the case where a central black dot is used. In this schematic treatment so striking and interesting a feature as the eye-lash only very rarely finds a place. A similar schematic treatment of the eye in the use of a dot, a dot in a circle, and two circles, is observable in the drawings of savages and of Egyptian and other archaic art.[2]

The evolution of the mouth is particularly interesting. It is wont to begin with a horizontal line (or what seems intended for such) which is frequently drawn right across

[1] In one case I find the curious device of two dots or small circles, one above the other within a larger circle, and this form repeated in the eye of animals.

[2] An example of circle within circle occurs in a drawing by a male Zulu in General Pitt-Rivers' collection.

the facial circle. But a transition soon takes place to a more distinctive representation. This is naturally enough carried out by the introduction of the characteristic and interesting detail, the teeth. This may be done, according to M. Perez, by keeping to the linear representation, the teeth being indicated by dots placed upon the horizontal line. In all the cases observed by me the teeth are introduced in a more realistic fashion in connexion with a contour to suggest the parted lips. The contour—especially the circular or ovoid—occasionally appears by itself without teeth, but the teeth seem to be soon added. The commonest forms of tooth-cavity I have met with are a

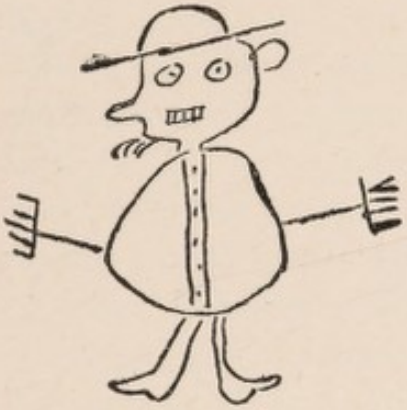

Fig. 6 (*a*).

Fig. 6 (*b*).

Fig. 6 (*c*).

narrow rectangular and a curved spindle-shaped slit with teeth appearing as vertical lines (see the two drawings by boys of six and five, Fig. 6 (*a*) and (*b*)). These two forms are improved upon and more likeness is introduced by making the dental lines shorter, as in Fig. 5 (*c*) (p. 340). With this may be compared a drawing by a boy of five (Fig. 6 (*c*)), where however we see a movement from realism in the direction of a freer decorative treatment.

A somewhat similar process of evolution is noticeable in the case of the nose, though here the movement is soon brought to a standstill. Thus the vertical line gives place

to an angle, which may point to the side, as in the drawing of a country-boy between three and four (Fig. 7 (*a*)), but more frequently, I think, points upwards, as in the drawing of a boy of six (Fig. 7 (*b*)). This in its turn leads to an isosceles triangle with an acute angle at the apex, as in the drawing of a boy of six (Fig. 7 (*c*)). In a few cases a long spindle-shaped or rectangular form similar to that of the

Fig. 7 (*a*).

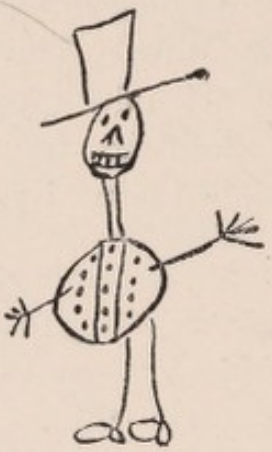

Fig. 7 (*b*).

Fig. 7 (*c*).

Fig. 7 (*d*).

Fig. 7 (*e*).

mouth is employed, as in a drawing of a nervous child of six (Fig. 7 (*d*)). Refinements are introduced now and again by an attempt at the nostrils, as in the accompanying curious drawing by a seven-years-old Jamaica girl (Fig. 7 (*e*)).[1]

[1] It is possible that in this drawing the two short lines added to the mouth are an original attempt to give the teeth.

The introduction of other features, more especially ears and hair, must, according to my observations, be looked on as occasional only, and as a mark of an advance to a more naturalistic treatment. Differences of treatment occur here too. Thus the ears, which are apt to be absurdly large, are now inserted inside the head circle, now outside it. The hair appears now as a dark cap of horizontal strokes, now as a kind of stunted fringe, now as a bundle or wisp on one side, which may either fall or stand on end (see above, Fig. 7 (*d*), and the accompanying drawing by a girl of nearly four, Fig. 8 (*a*)). These methods of representation are occasionally varied by a more elaborate line-device, as a curly looped line similar to that employed for smoke, as in the annexed drawing by a girl of seven (Fig. 8 (*b*)).

Fig. 8 (*a*).

Fig. 8 (*b*).

As implied in this account of the facial features, a good deal of convention-like agreement of method is enlivened by a measure of diversity of treatment. Perhaps one of the most striking instances of daring originality is seen in the attempt by a girl of four—who was subjected to a great deal of instruction—to give separate form to the chin (Fig. 9). This may be compared with the attempt of the Uganda negro to indicate symbolically the cheeks (see above, p. 336, Fig. 3).

Fig. 9.

As I have remarked, to the child bent on representing 'man' the head or face is at first the principal thing, some early drawings contenting themselves with this. But in

general the head receives some support. The simplest device here is the abstract mode of representation by two supporting lines, which do duty for legs and body. These are for the most part parallel (see above, p. 336, Fig. 2), though occasionally they are united at the top, making a kind of target figure. This same arrangement, fixing the head on two upright lines, meets us also in the rude designs of savages, as may be seen in the accompanying rock inscription from Schoolcraft (Fig. 10).[1]

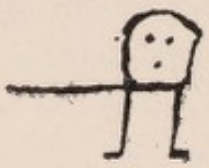

Fig. 10.

The comparative indifference of the child to the body or trunk is seen in the obstinate persistence of this simple scheme of head and legs, to which two arms attached to the sides of the head are often added. A child will complete the drawing of the head by inserting hair or a cap, and will even add feet and hands, before he troubles to bring in the trunk (see above, p. 336, Fig. 2, and p. 342, Fig. 7 (*d*), also the accompanying drawing by a boy of six, Fig. 11 (*a*)). With this neglect of the trunk by children may be compared the omission of it—as if it were a forbidden thing—in one of General Pitt-Rivers' drawings, executed by a Zulu woman (Fig. 11 (*b*)).

Fig. 11 (*a*).

Fig. 11 (*b*).

From this common way of spiking the head on two forked or upright legs there is one important deviation. The contour of the head may be left incomplete, and the upper occipital part of the curve be run on into the leg-lines, as in the accompanying example by a Jamaica girl

[1] *Op. cit.*, pt. iv., plate 18.

of seven (Fig. 12). Dr. Lukens gives another example in a drawing of a girl of five years seven months.[1]

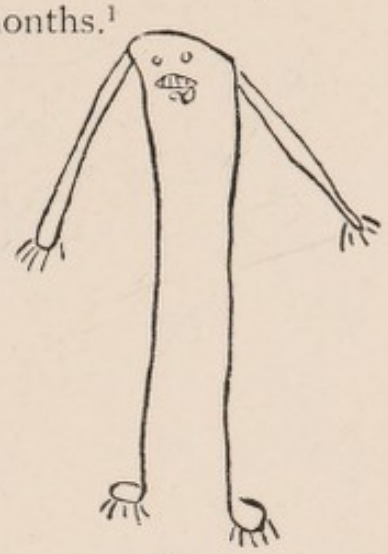

Fig. 12.

The drawing of the trunk may commence in one of two ways. With English children it appears often to emerge as an expansion or prolongation of the head-contour, as in the accompanying drawings of the front and side view (Fig. 13 (*a*) and (*b*)).[2] Or, in the second place, the leg-scheme may be modified, either by drawing a horizontal line across them and so making a rectangle, as in the accompanying drawing by a boy of six, or by shading in the upper part of the space, as in the other figure by a girl of five (Fig. 13 (*c*) and (*d*)). A curious and interesting

Fig. 13 (*a*).

Fig. 13 (*b*).

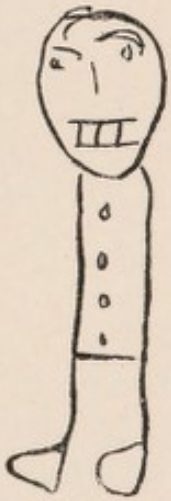

Fig. 13 (*c*).

Fig. 13 (*d*).

variant of this second mode of introducing the trunk is to be found in drawings of Von den Steinen's Brazilians, where

[1] "Children's Drawings," Fig. 7, *Ped. Seminary*, 1896.

[2] A drawing given by Andree, *op. cit.*, plate ii., 11, seems to me to illustrate a somewhat similar device.

the leg-lines are either kept parallel for a while and then made to diverge, or are pinched in below what may be called the pelvis, though not completely joined (Fig. 13 (*e*) and (*f*)).

Fig. 13 (*e*) and (*f*).

When the trunk is distinctly marked off, it is apt to remain small in proportion to the head, as in the following two drawings by boys of about five (Fig. 14 (*a*) and (*b*)). As to its shape, it is most commonly circular or ovoid like the head. But the square or rectangular form is also found, and in the case of certain children it is expressly

Fig. 14 (*a*).

Fig. 14 (*b*).

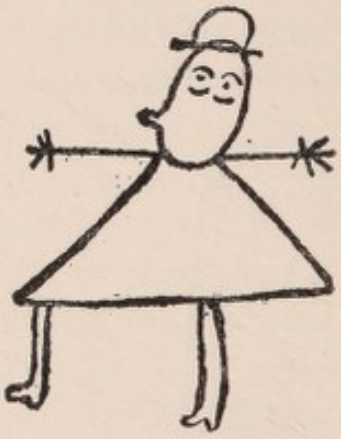

Fig. 14 (*c*).

stated that this came later. A triangular cape-like form also appears now and again, as in the accompanying drawing by a boy of six (Fig. 14 (*c*)).[1] The treatment of the form of trunk often varies in the drawings of the same child.

At this stage there is no attempt to show the joining on of the head to the trunk by means of the neck. The oval of the head is either made to touch that of the trunk, or more commonly to cut off the upper end of the latter. The

[1] The opposite arrangement of a triangle on its apex occurs among savage drawings.

neck, when first added, is apt to take the exaggerated look of caricature. It may be represented by a single line, by a couple of parallel lines, or by a small oval or circle, as in the accompanying drawings by a girl of six and a boy of five respectively (Fig. 15 (*a*) and (*b*); *cf.* above, p. 342, Fig. 7 (*b*)).

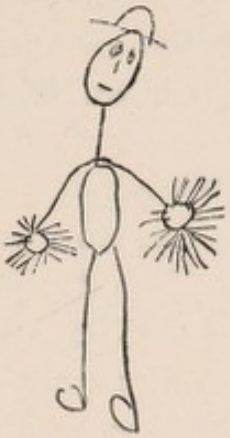

Fig. 15 (*a*).

Fig. 15 (*b*).

It is noticeable that there is sometimes a double body, two oval contours being laid one upon the other. In certain cases this looks very like an expansion of the neck, as in the accompanying drawing by the same boy that drew the round neck above (Fig. 16 (*a*)). In other cases the arrangement plainly does not aim at differentiating the neck, since this part is separately dealt with (Fig. 16 (*b*)). Here it may possibly mean a crude attempt to indicate the division of the trunk at the waist, as brought out especially by female attire, as may be seen in the accompanying drawing where the dots for buttons on each oval seem to show that the body is signified (Fig. 16 (*c*); *cf.* above, p. 342, Fig. 7 (*c*)).[1] This, along with the triangular

Fig. 16 (*a*).

Fig. 16 (*b*).

Fig. 16 (*c*).

[1] On the other hand I find the button dots sometimes omitted in the lower oval.

cape-shape of the trunk, is one of the few illustrations of the effect of dress on the first childish treatment of the figure. As a rule, this primitive art is a study of nature in so far as the artificial adjuncts of dress are ignored, and the rounded forms of the body are, though crudely enough no doubt, hinted at.

Coming now to the arms we find that their introduction is very uncertain. To the child, as also to the savage, the arms are what the Germans call a Nebensache—side-matter (*i.e.*, figuratively as well as literally), and are omitted in rather more than one case out of two. After all, the divine portion, the head, can be supported very well without their help.

The arms, as well as the legs, being the thin lanky members, are commonly represented by lines. The same thing is noticeable in the drawings of savages.[1] The arms appear in the front view of the figure as stretched out horizontally, or, at least, reaching out from the sides; and their appearance always gives a certain liveliness to the figure, an air of joyous self-proclamation, as if they said in their gesture-language, 'Here I am' (see above, p. 339, Fig. 5 (*a*), and the accompanying drawing of a boy of six, Fig. 17).

Fig. 17.

In respect of shape and structure a process of evolution may be observed. In certain cases the abstract linear representation gives place to contour, the arm being drawn of a certain thickness. But I find that the linear representation of the arm often persists after the legs have received contour, this being probably another illustration of the comparative neglect of the arm; as in the accompany-

[1] For examples, see Andree, *op. cit.*, plate 3. *Cf.* the drawings of Von den Steinen's Brazilians.

ing drawing by a boy of five (Fig. 18 (*a*)). The primal rigid straightness yields later on to the freedom of an organ. Thus an attempt is made to represent by means of a curve the look of the bent arm, as in the accompanying drawings by boys

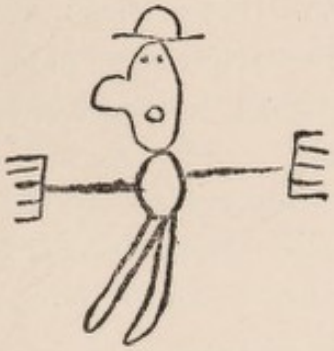

Fig. 18 (*a*).

Fig. 18 (*b*).

Fig. 18 (*c*).—A miner.

of five (Fig. 18 (*b*) and (*c*)). In other cases the angle of the elbow is indicated. This last comes comparatively late in children's drawings, which here, too, lag behind the crudest outline sketches of savages.

The mode of insertion or attachment of the arms is noteworthy. Where they are added to the trunkless figure they appear as emerging either from the sides of the head, as in the accompanying drawing by a boy of two and a half years, or from the point of junction of the head and legs (Fig. 19; *cf.* above, p. 342, Fig. 7 (*d*) and (*e*)). In the case of savage drawings wanting the trunk the arm is also inserted at this point of junction (see above, pp. 344, 346, Figs. 10 and 13 (*f*)).[1]

19.

[1] On the treatment of the arm in the drawings of savages, see in addition to the authorities already mentioned *The Annual Report of the Bureau of Ethnology*, 1882-3, p. 42 ff.

After the trunk has been added, the mode of insertion varies still more. In a not inconsiderable number of cases the arms spring from the bottom of the head-circle, and sometimes even from the median region, as before the trunk appeared (*cf.* above, p. 346, Fig. 14 (*b*)). In the last case the most grotesque arrangements occur, as if the arms might sprout at any point of the surface.[1] In the majority of cases, however, and certainly among the better drawings, the arms spring from the side of the trunk towards the median level (*cf.* above, p. 341, Fig. 6 (*a*)).

The length of the arm is frequently exaggerated. This adds to the self-expansive and self-proclamatory look of the mannikin, as may be seen in the accompanying

Fig. 20 (*a*).

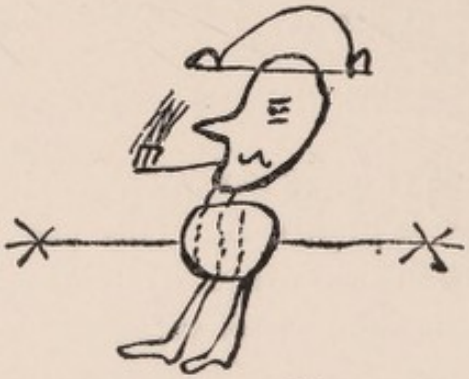

Fig. 20 (*b*).

drawings by boys of five and of six respectively (Fig. 20 (*a*) and (*b*)).

This arrangement of the arms stretched straight out, or less commonly pointing obliquely upwards or downwards, continues until the child grows bold enough to represent actions. When this stage is reached their form and length may be materially modified, as also their position.[2]

[1] The tendency which appears in more than one child's drawings to put the right arm below the left is worth noting, though I am not prepared to offer an explanation of the phenomenon.

[2] On the treatment of the arm, see Perez, *op. cit.*, p. 190: *cf.* Ricci, *op. cit.*, pp. 6-8. I have met with no case of the arms being attached to the legs such as Stanley Hall speaks of, *Contents of Children's Minds*, p. 267.

The arm in these childish drawings early develops the interesting adjunct of a hand. Like other features this is apt at first to be amusingly forced into prominence by its size, and not infrequently by heaviness of stroke as well.

The treatment of the hand illustrates the process of artistic evolution, the movement from a bold symbolism in the direction of a more life-like mode of representation. Thus one of the earliest and rudest devices I have met with, though in a few cases only, is that of drawing strokes across the line of the arm by way of digital symbols. Here we have merely a clumsy attempt to convey the abstract idea of branching or bifurcation. These cross-strokes are commonly continued upwards so that the whole visible part of the arm becomes tree-like. It is an important step from this to the drawing of twig-like lines which bifurcate with the line of the arm (Fig. 21 (*a*) and (*b*)).

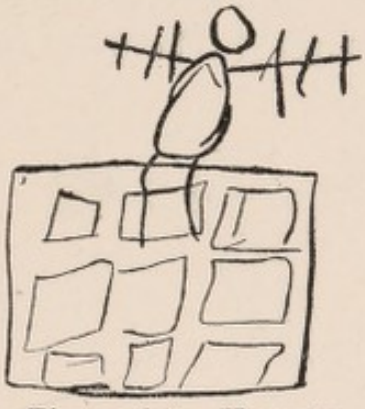

Fig. 21 (*a*).—Humpty Dumpty on the wall.

Fig. 21 (*b*).

It is a still more significant advance in the process of evolution when the digital bifurcations are placed rightly, being concentrated in a bunch-like arrangement at the extremity of the arm-line. Here, again, various modes of treatment disclose themselves, marking stages in the development of the artist.

The simplest device would seem to be to draw one short line on either side of the termination of the arm-line so as to produce a rude kind of bird's foot form. This may be done clumsily by drawing a stroke across at right angles to the line of the arm, or better by two independent strokes making acute angles with this line. These two modes of delineation manifestly represent a restriction of the two

varieties of diffuse or dispersed treatment of the fingers already illustrated. Both forms occur among children's drawings. They may be found among the drawings of savages as well.[1]

In this terminal finger-arrangement the number of finger-lines varies greatly, being, in the cases observed by me, frequently four and five, and sometimes even as great as ten. It varies, too, greatly in the drawings of the same child, and in some cases even in the two hands of the same figure, showing that number is not attended to, as may be seen in the two annexed drawings, both by boys of five (Fig. 22 (*a*) and (*b*)). The idea seems to be to set forth a multiplicity of branching fingers, and multiplicity here seems to mean three or more. The same way of representing the hand by a claw-form, in which the number of fingers is three or more, reappears in the drawings of savages (*cf.* above, p. 339, Fig. 4 (*c*)).[2]

Fig. 22 (*a*).

Fig. 22 (*b*).

An important advance on these crude devices is seen where an attempt is made to indicate the hand and the relation of the fingers to this. One of the earliest of these attempts takes the form of the well-known toasting-fork or rake hand. Here a line at right angles to that of the arm symbolically represents the hand, and the fingers are set forth by the prongs or teeth (see above, p. 341, Fig. 6 (*a*), and p. 349, Fig. 18 (*a*)). Number is here as little attended to as in the radial arrangements. It

[1] See Andree's collection, *op. cit.*, ii., 11.

[2] Examples may be found in Catlin, Schoolcraft, Andree, Von den Steinen, and others, also in the drawings in the Pitt-Rivers Museum, Farnham. Von den Steinen gives a case of seven finger-strokes.

is worth noting that this *schema* seems to be widely diffused among children of different nationalities, and occurs in the drawings of untaught adults. I have not, however, noticed any example of it among savage drawings.

Another way of bringing in the hand along with the fingers is by drawing a dark central patch or knob. This not infrequently occurs without the fingers as the symbol for hand. It becomes a complete symbol by arranging finger-lines after the pattern of a burr about this (see above, p. 347, Fig. 15 (*a*)).

A further process of artistic evolution occurs when the fingers take on contour. This gives a look of branching leaves to the hand. The leaf-like pattern may be varied in different ways, among others by taking on a floral aspect of petal-like fingers about a centre, as in the two annexed drawings by boys of six (Fig. 23 (*a*) and (*b*); *cf.* above, p. 350, Fig. 20 (*a*)).

Fig. 23 (*a*).

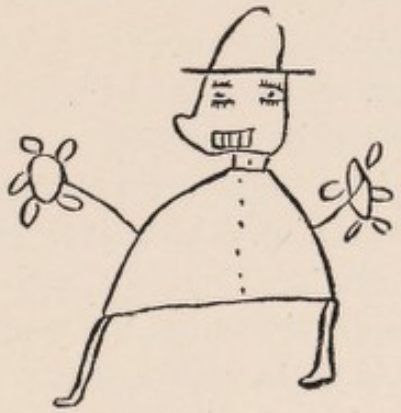

Fig. 23 (*b*).

One curious arrangement by which a thickened arm is made to expand into something like a fan-shaped hand appears with considerable frequency. It is zoologically interesting as being a kind of rough representation of the fundamental typical form from which hand, fin, and wing may be supposed to have been evolved. Here the arm sinks into insignificance, the whole limb taking on the aspect of a prolonged hand, save where the artist resorts to the device of

making the double organ go across the body (Fig. 24 (*a*) and (*b*)).

Fig. 24 (*a*).

Fig. 24 (*b*).

The legs come in for very much the same variety of treatment as the arms. The abstract straight line here, as already pointed out, soon gives place to the pair of lines representing thickness. They are for the most part parallel and drawn at some distance one from the other, though in certain cases there is a slight tendency to give to the figure the look of the 'forked biped' (*cf.* above, p. 342, Fig. 7 (*c*)). In a large proportion of cases there is a marked inclination of the legs, as indeed of the whole figure, which seems to be falling backwards (see above, pp. 340, 352, Figs. 5 (*c*) and 22 (*b*)). In many instances, in front and profile view alike, one of the legs is drawn under the body, leaving no room for the second, which is consequently pushed behind, and takes on the look of a tail (see above, p. 352, Fig. 22 (*b*)).

Both legs are regularly shown alike in front and in profile view. Yet even in this simple case attention to number may sometimes lapse. Among the drawings collected by me is one by a boy of five representing the monster, a three-legged 'biped' (Fig. 25).[1]

Fig. 25.

The shape of the leg varies greatly. With some children it is made short and fat. It develops a certain amount of curvature long before it develops a knee-bend. This is just what we should expect. The standing figure needs straight or

[1] Unless this is a jocose suggestion of a tail.

approximately straight legs as its support. When the knee-bend is introduced it is very apt to be exaggerated (*cf.* above, Fig. 24 (*b*)). This becomes still more noticeable at a later stage, where actions, as running, are attempted.

The treatment of the foot shows a process of evolution similar to that seen in the treatment of the hand. At first a bald abstract indication or suggestion is noticeable, as where a short line is drawn across the extremity of the leg. In place of this a contour-form, more especially a circle or knob, may be used as a designation. Very interesting here is the differentiation of treatment according as the booted or naked foot is represented. Children brought up in a civilised community like England, though they sometimes give the naked foot (see p. 342, Fig. 7 (*d*), where the claw pattern is adopted), are naturally more disposed to envisage the foot under its boot-form. Among the drawings of the Jamaica children, presumably more familiar with the form of the naked foot, I find both the toasting-fork and the burr arrangement, as also a rude claw, or birch-like device used for the foot (see above, pp. 336, 338, 345, Figs. 2, 4 (*b*), and 12). The toasting-fork arrangement appears in General Pitt-Rivers' collection of savage drawings. Also a bird's foot treatment often accompanies a similar treatment of the hand in the pictographs of savage tribes, and in the drawings of Von den Steinen's Brazilians (see above, pp. 338, 339, Fig. 4 (*a*) and (*c*)).

Fig. 26 (*a*).

An attempt to represent the booted foot seems to be recognisable in the early use of a triangular form, as in the accompanying drawing by a small artist of five (Fig. 26 (*a*)).[1] Very curious is the way in which the child seeks to

[1] This is hardly conclusive, as I find the triangular form used for the foot of a quadruped, presumably a horse.

indicate the capital feature of the boot, the division of toe and heel. This is very frequently done by continuing the line of the leg so as to make a single or a double loop-pattern, as in the following (Fig. 26 (*b*), (*c*); *cf.* above, p. 342, Fig. 7 (*b*)). A tendency to a more restrained and naturalistic treatment is sometimes seen (see above, p. 354, Fig. 24 (*a*) and (*b*)). It may be added that the notch between toe and heel is almost always exaggerated. This may be seen by a glance at Figs. 17 and 22 (*a*), pp. 348, 352. The same thing is noticeable in a drawing by a young Zulu in General Pitt-Rivers' collection.

Fig. 26 (*b*).

Fig. 26 (*c*).

Front and Side View of Human Figure.

So far, I have dealt only with the treatment of the front view of the human face and figure. New and highly curious characteristics come into view when the child attempts to give the profile aspect. This comes considerably later than the early lunar representation of the full face.

Children still more than adults are interested in the full face with its two flashing and fascinating eyes. 'If,' writes a lady teacher of considerable experience in the Kindergarten, 'one makes drawings in profile for quite little children, they will not be satisfied unless they see two eyes; and sometimes they turn a picture round to see the other side.' This reminds one of a story told by Catlin of the Indian chief, who was so angry at a representation of himself in profile that the unfortunate artist went in fear of his life.

At the same time children do not rest content with this front view. There is, I believe, ample reason to say that,

quite apart from teaching, they find their own way to a new mode of representing the face and figure which, though it would be an error to call it a profile drawing, has some of the characteristics of what we understand by this expression.

The first clear indication of an attempt to give the profile aspect of the face is the introduction of the angular line of the side view of the nose into the contour. The little observer is soon impressed by the characteristic, well-marked outline of the nose in profile; and as he cannot make much of the front view of the organ, he naturally begins at an early stage, certainly by the fifth year, to vary the scheme of the lunar circle, broken at most by the ears, by a projection answering to a profile nose.

This change is sometimes made without any other, so that we get what has been called the mixed scheme, in which the eyes and mouth retain their front-view aspect. This I find very common among children of fi e. It may be found—even in the trunkless figure—along with a linear mouth (see above, pp. 340-344, Figs. 5 (*c*) and following, also 11 (*a*)). The nasal line is, needless to say, treated with great freedom. There is commonly a good deal of exaggeration of size. In certain cases the nose is added in the form of a spindle to the completed circle (Fig. 27; *cf.* above, p. 340, Fig. 5 (*c*)).

Fig. 27.

It may well seem a puzzle to us how a normal child of five or six can complacently set down this irrational and inconsistent scheme of a human head. We must see what can be said by way of explanation later on. It is to be noticed, further, that in certain cases the self-contradiction goes to the point of doubling the nose. That is to say, although the interesting new feature, the profile nose, is introduced, earlier habit asserts itself so that the vertical

nasal line appears between the two eyes (see above, p. 349, Fig. 18 (*c*)).

The further process of differentiation of the profile from the primitive full-face scheme is effected in part by adding other features than the nose to the contour. Thus a notch for the mouth appears in some cases below the nasal projection (Fig. 28 (*a*)), though the grinning front view is apt to hold its own pertinaciously. A beard, especially the short 'imperial,' as it used to be called, shooting out like the nose from the side, also helps to mark profile.[1] Less frequently an ear, and in a very few cases, hair, are added on the hinder side of the head, and assist the impression of profile. Adjuncts, especially the pipe, and sometimes the peak of the cap, contribute to the effect, as in the accompanying drawing by a boy of six (Fig. 28 (*b*); *cf.* above, Figs. 6 (*a*), 18 (*c*), and 24 (*b*), pp. 341, 349, 354).[2]

Fig. 28 (*a*).

Fig. 28 (*b*).

At the same time the front features themselves undergo modification. The big grinning mouth is dropped and one of the eyes omitted. The exact way in which this occurs appears to vary with different children. In certain cases it is clear that the front view of the mouth cavity disappears, giving place to a rough attempt to render a side view, before the second eye is expunged; and in one case I have

[1] I take the long line in Fig. 27 to represent the manly beard.

[2] In rare cases the pipe sticks out from the side of what is clearly the primitive full face. Schoolcraft gives an example of this, too, in Indian drawing, *op. cit.*, pt. ii., pl. 41.

detected a survival of the two eyes in what otherwise would be a consistent profile drawing of head and figure (Fig. 29 (*a*); *cf.* above, p. 349, Fig. 18 (*b*)). This late survival of the two eyes agrees with the results of observation on the drawings of the uncultured adult. One of General Pitt-Rivers' African boys inserted the two eyes in a profile drawing. Von den Steinen's Brazilians drew by preference the full face, so that we cannot well judge as to how they would have treated the profile. Yet it is curious to note that in what is clearly a drawing of a side view of a fish one of these Brazilians introduces both eyes (Fig. 29 (*b*)). The insertion of two eyes is said by some never to occur in the

Fig. 29 (*a*).

Fig. 29 (*b*).

Fig. 29 (*c*).

drawings of savages on stone, hide, etc.[1] But I have come across what seems to me a clear example of it, and this in a fairly good sketch of a profile view of the human figure on an Indian vase (Fig. 29 (*c*)).[2] Yet this late retention of the two eyes in profile, though the general rule in children's drawings, is liable to exceptions. Thus I have found a child retaining the big front view of the mouth along with a single eye.

It may be added that children at a particular stage

[1] Ricci's remarks seem to me to come to this, *op. cit.*, p. 25.

[2] From *The Annual Report of the Bureau of Ethnology*, 1880-1, p. 406, Fig. 626.

show a preference for some one arrangement; for example, the profile nose and mouth, and the two front-view eyes, which tends to become the habitual form used, though a certain amount of variation is observable. The differences noticeable among different children's drawings suggest that all of them do not go through the same stages. Thus some may pass by the two-eyed profile stage altogether, or very soon rise above it, whereas others may linger in it.[1]

One notices, too, curious divergences with respect to the mixture of incompatible features. Differences in the degree of intelligence show themselves here also. Thus in one case a child, throughout whose drawings a certain feeble-mindedness seems to betray itself, actually went so far as to introduce the double nose without having the excuse of the two eyes (Fig. 30). In such odd ways do the tricks of habit assert themselves.

Fig. 30.

The difficulty which the child feels in these profile representations is seen in the odd positions given to the eyes. These are apt to be pushed very high up, to be placed one above the other, and, what is more significant, to be put far apart and close to the line of contour (see above, Fig. 29 (*a*)). In the following drawing by a boy of five one of the eyes may be said to be on this line (Fig 31 (*a*)). In General Pitt-Rivers' collection we find a still more striking instance of this in a drawing by a boy of eleven, the second eye appearing to be intentionally put outside the contour, as if to suggest that

Fig. 31 (*a*).

[1] Ricci says that seventy per cent. insert two eyes in their first profile drawings (*op. cit.*, p. 17). But this seems a rather loose statement.

we must look round to the other side of the facial disc in order to see it (Fig. 31 (*b*)). Curious variations of treatment appear, as in inserting two eyes between the same pair of curves as in Fig. 20 (*b*), p. 350, and in enclosing two pairs of dots or small circles in two larger circles as in Figs. 14 (*b*), and 22 (*a*), pp. 346, 352 (both by the same boy).[1]

Fig. 31 (*b*).

It may be added that even when only one eye is drawn, a reminiscence of the anterior view is seen in its form. It is the round or spindle-shaped contour of the eye as seen in front. That is to say the eye of the profile like that of the full face looks directly at the spectator, so that in a manner the one-eyed profile is a front view (see for an example, Fig. 5 (*a*), p. 339). The designs of savages, and the archaic art of civilised races, including a people so high up as the Egyptians, share this tendency of children's drawings of the profile, though we find scarcely a trace of the tendency to insert both eyes.

A like confusion or want of differentiation shows itself in the management of other features in the profile view. As observed, a good large ear at the back sometimes helps to indicate the side view (see above, p. 341, Fig. 6 (*a*)). But the wish to bring in all the features, seen in the obstinate retention of the two eyes, shows itself also in respect of the ears. Thus one occasionally finds the two ears as in the front view (see above, p. 346, Fig. 14 (*a*), where the aspect is clearly more front view than profile), and sometimes, according to M. Passy—as if the profile nose interfered with this arrangement—both placed together on one side. The treatment of the moustache when this is introduced follows that of the mouth. So imposing a feature must be given in all the glory of the front view (see above, p. 350, Fig. 20 (*b*)).

Other curious features of this early crude attempt to

[1] I assume that these are intended for two eyes; but the scheme is not easy to interpret.

deal with the profile show themselves in the handling of the trunk and the limbs. I have met with only one or two instances of a profile head appearing before the addition of the trunk as in Fig. 28 (*a*) (p. 358). In the large majority of cases the trunk appears and retains the circular or oval form of the primitive front view. When, as very frequently happens, the interesting vertical row of buttons is added it is apt to be inserted in the middle, giving a still more definitely frontal aspect. The juxtaposition of this with the head turned to the left need cause no difficulty to the little draughtsman, after what he has comfortably swallowed in the shape of incompatibilities in the face itself (see above, p. 347, Fig. 15 (*b*)). In rare cases, however, one may light on a distinctly lateral treatment of the buttons. In one instance I have found it in a drawing which would be a consistent profile but for the insertion of the second eye, and the frontal treatment of the legs and feet (Fig. 32).

Fig. 32.

In the arrangement of the arms there is more room for confusion. The management of these in the profile view naturally gives difficulty to the little artist, and in some cases we find him shirking the point by retaining the front view or spread-eagle arrangement. This occurs as a rule where the profile modification is limited to the introduction of a lateral nose or nose and pipe (see, *e.g.*, Figs. 24 (*a*) and 28 (*b*), pp. 354, 358). What is more surprising is that it appears in rare cases in drawings which otherwise would be fairly consistent profile sketches. [Fig. 33;

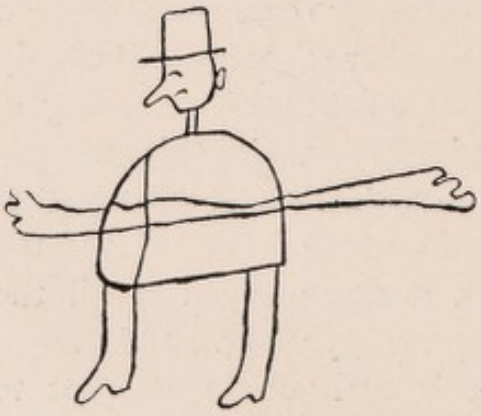

Fig. 33.

all this child's completed drawings, four in number, adopt the same front-view scheme of arms.]

The view of the profile with both arms stretched out in front seems, however, early to impress itself on the child's imagination, and an attempt is made to introduce this striking arrangement. The addition of the forward-reaching arms helps greatly to give a profile aspect to the figure (see above, p. 349, Fig. 18 (*b*)).

The addition of the forward-reaching arms is carried out more especially when it is desired to represent an action, as in the drawing given above, p. 342, Fig. 7 (*c*), by a boy of six, which represents a nurse apparently walking behind a child, and in the accompanying figure, by a boy of eight and a half, of an Irishman knocking a man's head inside a tent (Fig. 34).

Fig. 34.

The crudest mode of representing the side view of the forward-reaching arms is by drawing the lines from the contour, as in Fig. 35 (*a*). Difficulties arise when the lines are carried across the trunk. Very often both arms are drawn in this way, as in Fig. 35 (*b*). There is a certain analogy here to the insertion of the two eyes in the profile representation, a second feature being in each case added which in the original object is hidden.[1]

Fig. 35 (*a*).

Fig. 35 (*b*).

[1] According to Ricci the second arm is supposed to be seen through the body.

When the two arms are thus introduced their position varies greatly, whether they start from the contour or are drawn across the body. That is to say, they may be far one from the other (as in Fig. 35 (*b*)), or may be drawn close together. And again the point of common origin may be high up at the meeting point of trunk and chin, as in a drawing by a boy of five (Fig. 36), or at almost any point below this.

Fig. 36.

In the cases I have examined the insertion of both arms in profile representations is exceptional. More frequently, even when action is described, one arm only is introduced, which may set out from the anterior surface of the trunk, or, as we have seen, start from the posterior surface and cross the trunk (see above, pp. 353, 356, Figs. 23 (*a*) and 26 (*c*)). In most cases where no action such as walking and holding a cane is signified both arms are omitted. The uncertainty of the arms is hardly less here than in the front view.

With respect to the legs, we find, as in the primitive frontal view, an insertion of both. An ordinary child can still less represent a human figure in profile with only one leg showing than he can represent it with only one eye. As a rule, so long as he is guided by his own inner light only he does not attempt to draw one leg over and partially covering the other, but sets them both out distinctly at a respectful distance one from the other. The refinement of making the second foot or calf and foot peep out from behind the first, as in Fig. 29 (*a*) (p. 359), and possibly also Fig. 18 (*c*) (p. 349), shows either an exceptional artistic eye, or the interference of the preceptor.

The treatment of the feet by the childish pencil is interesting. It is presumable that at first no difference of profile and front view attaches to the position of the foot. It has to be shown, and as the young artist knows

nothing of perspective and foreshortening, and, moreover, would not be satisfied with that mode of delineation if he could accomplish it, he proceeds naturally enough to draw the member as a line at right angles to that of the leg. This is done in one of two ways, in opposed directions outwards, or in the same direction, answering to what we should call the front or the side view. At first, I believe, no significance of front and side view is attached to these arrangements. Thus in some sketches by a little girl of four and a half I find the primitive front view of the head combined with each of these arrangements of the foot. In drawings, too, of older children of six and upwards I have met with cases both of a profile representation of head and trunk with spread-eagle feet, as also of a side view of the feet with a front face (see Figs. 5 (*a*) and 13 (*c*), pp. 339, 345). This last arrangement, I find, appears in a profile treatment of the whole leg and foot among the drawings of North American Indians (Fig. 37); and this suggests that the side view in which the two feet point one way is more easily reached and fixed by the untutored draughtsman.

Fig. 37.

A regular and apparently intelligent addition of the side view of the feet to the child's crude profile drawing of the human figure produces a noticeable increase of definiteness. One common arrangement, I find, in the handling of the profile is the combination of the side view of the feet with a more or less consistent profile view of the head, while the bust is drawn in front view (see above, Figs. 35 (*a*), 36). The effect is of course greater where the side view of the bent leg is added (see Fig. 38 and compare with

Fig. 38.

this Fig. 37). I find a liking for this same arrangement in the drawings of the unskilled adult. An example may be seen in a drawing by an English carpenter in General Pitt-Rivers' Museum at Farnham. In the pictographs of the North American Indians we meet with cases of a similar treatment.[1] In the drawings on the Egyptian Mummy cases in the British Museum instances of a precisely similar treatment are to be found. We seem to have here a sort of transition from the first crude impossible conception to a more naturalistic and truthful conception. This twist of the trunk does not shock the eye with an absolutely impossible posture, as the early artistic solecisms shock it, and it is an arrangement which displays much that is characteristic and valuable in the human form.[2]

One point to be noticed among these drawings of the profile by children is that in a large majority of cases the figure looks to the left of the spectator. In the drawings which I have examined this appears like a rule to which there is scarcely any exception, save where the child wants to make two figures face one another in order to represent a fight or the less sensational incident of a salute. The way in which the new direction of the figure is given in these cases shows that children are not absolutely shut up to the one mode of representation by any insuperable difficulty. There is a like tendency observable in the treatment of the quadruped, which nearly always looks to the left. It may be added that a similar habit prevails in the drawings of untutored adults, as the pictographs of the North American Indians. The explanation of this, as well as of other generalisations here reached, will be touched on later.

I conceive, then, that there reveals itself in children's

[1] *Annual Report of Bureau of Ethnology*, 1882-3, p. 160.

[2] Professor Petrie has pointed out to me that the Egyptian of to-day with his more supple body easily throws himself into this position.

drawings of the human figure between the ages of three or four and eight a process of development involving differentiation and specialisation. This process, instead of leading to a fuller and more detailed treatment of the front view, moves in the direction of a new and quasi-profile representation, although few children arrive at a clear and consistent profile scheme. Different children appear to find their way to different modifications of a mixed front and side view, some amazingly raw, others less so according to the degree of natural intelligence, and probably also the amount of good example put in their way by drawings in books, and still more by model-drawings of mother or other instructor.

I have met with only a few examples of a contemporaneous and discriminative use of front view and profile. Here and there, it is true, one may light on a case of the old lunar scheme surviving side by side with the commoner mixed scheme; but this sporadic survival of an earlier form does not prove clear discrimination. In the case of one boy of five the two forms were clearly distinguished, but this child was from a cultured family, and had presumably enjoyed some amount of home guidance. In the case of the rougher and less sophisticated class of children it appears to be a general rule that the draughtsman settles down to some one habitual way of drawing the human face and figure, which can be seen to run through all his drawings, with only this difference, that some are made more complete than others by the addition of mouth, arms, etc. Even the fact of the use of one or two eyes by the same child at the same date does not appear to me to point to a clear distinction in his mind between a front and side view. The omissions in these cases may more readily be explained as the result of occasional fatigue and carelessness, or, in some cases, of want of room, or as indicating the point of transition from an older and cruder to a later and more complete scheme of profile. This conclusion is supported by the fact that a child of six or seven, when asked to draw from

the life, will give the same scheme, whether the model presents a front or a side view. This has been observed by M. Passy in the drawings of himself which he obtained from his own children, by General Pitt-Rivers in the drawings of uneducated adults, and by others. We may say, then, that children left to themselves are disposed each to adopt some single stereotyped mode of representing the human figure which happens to please his fancy.[1]

In this naïve childish art of profile drawing we have something which at first seems far removed from the art of uncivilised races. No doubt, as Grosse urges, the drawings of savages discovered in North America, Africa, Australia, are technically greatly superior to children's clumsy impossible performances. Yet points of contact disclose themselves. If a North American Indian is incapable of producing the stupid scheme of a front view of the mouth and side view of the nose, he may, as we have seen, occasionally succumb to the temptation to bring both eyes into a profile drawing. We may see, too, how in trying to represent action, and to exhibit the active limb as he must do laterally, the untutored nature-man is apt to get odd results, as may be observed in the accompanying drawing by a North American Indian of

[1] These results do not seem to agree with those of M. Passy or of Professor Barnes. M. Passy distinguishes in children's drawings a front and a side view, both of which may be used by the same child at the same time. The former consists of nose and mouth of profile and eyes and ears of full face, the latter, of nose and mouth of profile with one eye and one ear; that is to say the two differ only in the number of eyes and ears (*Revue Philosophique*, 1891, p. 614 ff.). It would be interesting to know on how large an examination this generalisation is based. As suggested above, the occasional omission of the second eye and ear where both are commonly used can be explained without supposing the child to distinguish between profile and full face. Professor Barnes goes so far as to state with numerical exactness the relative frequency of profile and full face by children at different stages. He makes, however, no serious attempt to explain the criterion by which he would distinguish the two modes of representation (see his article, *Pedagogical Seminary*, ii., p. 455 ff.).

a man shooting (Fig. 39 (*a*)).[1] This may be compared with the accompanying Egyptian drawing (Fig. 39 (*b*)).[2]

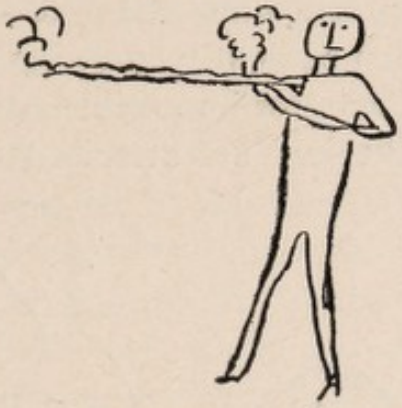

Fig. 39 (*a*).

Fig. 39 (*b*).

I have already touched on the modifications which appear in a child's drawing of the human figure when the sculpturesque attitude of repose gives place to the dramatic attitude of action. This transition to the representation of action marks the substitution of a more realistic concrete treatment for the early abstract symbolic treatment. Very amusing are some of the devices by which a child tries to indicate this. As Ricci has pointed out, the arm will sometimes be curved in order to make it reach, say, the face of an adversary (Fig. 40 (*a*)). A similar introduction of curvature appears in the accompanying drawing from a scalp inscription (Fig. 40 (*b*)). Sometimes a curious symbolism appears, as if to eke out the deficiencies of the artist's technical

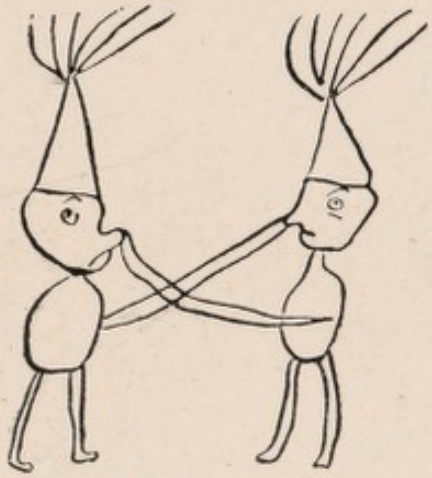

Fig. 40 (*a*).

Fig. 40 (*b*).

[1] Taken from Schoolcraft, vol. i., pl. 48.

[2] From Maspero's *Dawn of Civilisation*, p. 469.

resources, as when a boy of five represents the junction of two persons' hands by connecting them with a line (Fig. 40 (*c*)).[1] With this may be compared the well-known device of indicating the direction of sight by drawing a line from the eye to the object.[2] The most impossible attitudes occur when new positions of the legs are attempted, as in

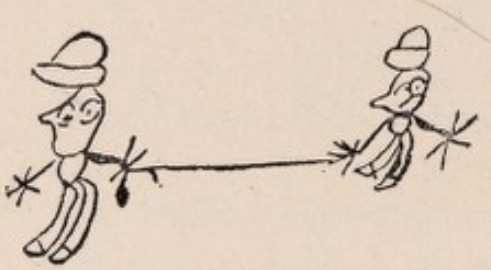

Fig. 40 (*c*).

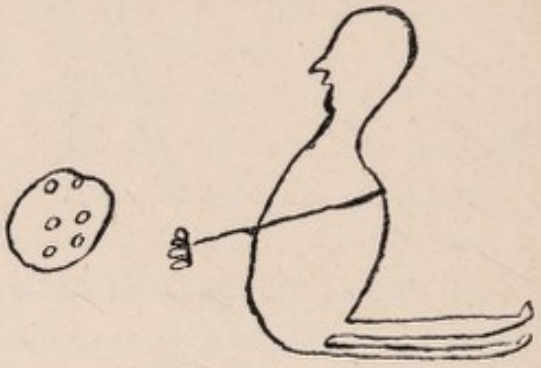

Fig. 40 (*e*).

Fig. 40 (*d*)

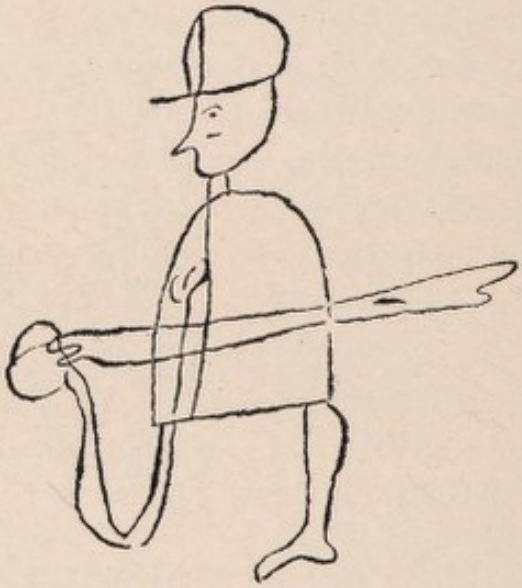

Fig. 40 (*f*).

the accompanying endeavours to draw the act of running, kneeling to play marbles, and kicking a football (Fig. 40 (*d*), (*e*), and (*f*)).

One other point needs to be referred to before we leave the human figure, *viz.*, the treatment of accessories. As

[1] This I take to be the meaning of this odd arrangement.

[2] *Cf.* Barnes, *loc. cit.*

pointed out, the child when left to himself is for the most part oblivious of dress, though the triangular cape-like form of the body may be a rude attempt to delineate a clothed figure. In general he cares merely to crown his figure with the hat of dignity, and, at most, to ornament the body with a row of buttons. Even when he grows sophisticated and attempts clothes he still shows his primitive respect for the natural frame. A well-known anthropologist tells me that his little boy on watching his mother draw a lady insisted on her putting in the legs before shading in the petticoats. In General Pitt-Rivers' collection there is a drawing by a boy of ten which in clothing the figure naïvely indicates the limbs through their covering (Fig. 41). This agrees with what Von den Steinen tells us of the way the Brazilian Indians drew him and his companions.

Fig. 41.

Yet the artificial culture which children in the better classes of a civilised community are wont to receive is apt to develop a precocious respect for raiment, and this respect is reflected in their drawings. The early introduction of buttons has been illustrated above. One boy of six was so much in love with these that he covered the bust with them (Fig. 42 (*a*)). Girls are wont to lay great emphasis on the lady's feathered hat and parasol, as in the accompanying drawing by a maiden of six (Fig. 42 (*b*)). Throughout this use of apparel in the

Fig. 42 (*a*).

Fig. 42 (*b*).

crude stage of child-art we see the desire to characterise sex, rank, and office, as when the man is given his hat, the soldier his military cap, and so forth. This applies, too, of course, to such frequent accessories as the walking-stick (or less frequently the whip, as in Fig. 35 (*b*), p. 363) and the pipe, each of which is made the most of in giving manliness of look. The pipe, it may be added, figures bravely in a drawing of a European by one of Von den Steinen's Brazilians.

First Drawings of Animals.

Many of the characteristics observable in the child's treatment of the human figure reappear in his mode of representing animal forms. This domain of child-art follows quickly on the first. Children's interest in animals, especially quadrupeds, leads them to draw them at an early stage. In prescribed exercises, moreover, the cat and the duck appear to figure amongst the earliest models. An example of this early attempt to draw animals has been given above (p. 334, Fig. 1).

Fig. 43 (*a*).—A duck.

The first crude attempts about the age of three or four to draw animal forms exhibit great incompleteness of conception and want of a sense of position and proportion. In one case the head seems to be drawn, but no body—if, indeed, head and body are not confused; and in others where a differentiation of head and trunk is attempted there is no clear local separation, or if this is attempted there is no clear indication of the mode of connexion (see, for example, Fig. 43 (*a*)). In the case of animals the side view is for obvious reasons hit on from the first. But, needless to say, there is no clear representation of the profile head. As a rule we have the front view, or at least the insertion of

the two eyes. Both eyes appear in Mr. Cooke's illustrations of drawings of the cat by children between three and four (Fig. 43 (*b*)), as also commonly in drawings of horses. The position of the eyes is often odd enough, these organs being in one drawing by a boy of five pushed up into the ears (Fig. 43 (*c*)).[1] The front view of the animal head

Fig. 43 (*b*).—Two cats.

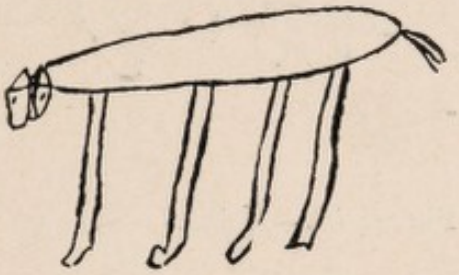

Fig. 43 (*d*).—A horse.

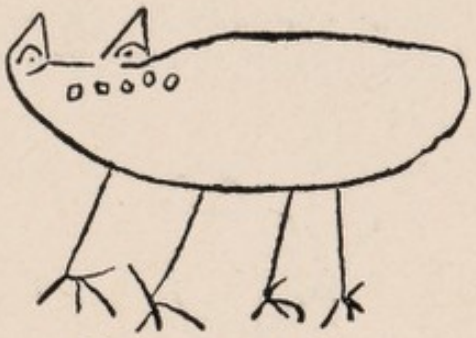

Fig. 43 (*c*).—A horse.

along with profile body appears occasionally in savage drawings also.[2] In some of children's drawings we see traces of a mixed scheme. Thus I have a drawing by a boy of five in which a front view is reached by a kind of doubling of the profile (Fig. 43 (*d*)).

More remarkable than all, perhaps, we have in one case a clear instance of the scheme of the human face, the features, eyes, nose, and mouth being arranged horizontally to suit the new circumstances (Fig. 44 (*a*)). With this may be compared the accompanying transference of

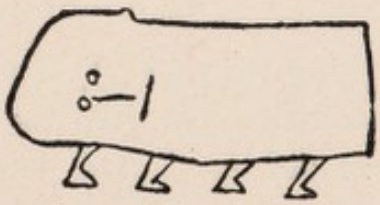

Fig. 44 (*a*).—A horse.

[1] Mr. Cooke kindly informs me that in an early Greek drawing in the First Vase Room in the British Museum, the eye of a fish is placed in the back part of the mouth.

[2] An example is given by Schoolcraft, *op. cit.*, pt. iv., pl. 18.

the animal ear to the human figure, though this suggests—especially in view of the pipe—a bit of jocosity on the part of the young draughtsman (Fig. 44 (*b*)).

The forms of both head and trunk vary greatly. In a few drawings I have found the extreme of abstract treatment in the drawing of the trunk, *viz.*, by means of a single line, a device which, so far as I have observed, is only resorted to in the case of the human figure for the neck and the limbs. An example of this was given above in Fig. 1 (p. 334). The following drawing of a dog by a little girl between five and six years old illustrates the same

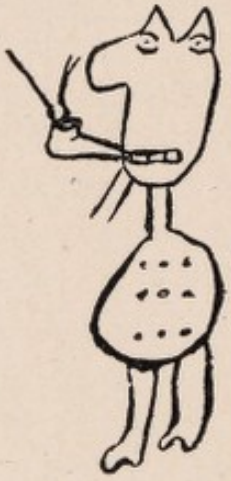

Fig. 44 (*b*).

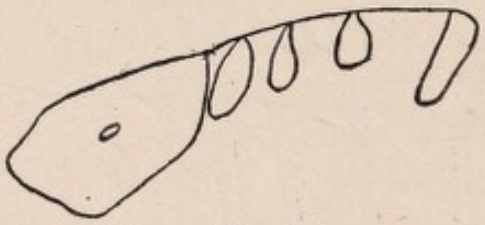

Fig. 44 (*c*).—A dog.

Fig. 44 (*d*).

thing (Fig. 44 (*c*)).[1] On the other hand we see sometimes a tendency to give the trunk abnormal thickness, as if the model used had been the wooden toy-horse, as in the accompanying drawing by a boy of five (Fig. 44 (*d*)). Rectilinear instead of rounded forms occur, and the head is often triangular, these rectilinear contours being probably

[1] Line drawings of animals as well as of men are found in savage art: see, for example, Schoolcraft, *op. cit.*, pt. iv., pl. 18. Mr. Cooke gives examples from drawings of the Trojans. Hence line drawing may, as he infers, be the primitive mode.

suggested by the teacher in his model schemes (see Fig. 44 (*e*)).

Fig. 44 (*e*).—A horse.

The legs are of course all visible. The strangest inattention to number betrays itself here. As we saw, a child in beginning his scribble-drawing piles on lines for the legs (see above, p. 334, Fig. 1). A girl between three and four years of age endowed a cat with two legs and a bird with three (see Fig. 45 (*a*) and (*b*)).[1] A boy in his sixth year drew a quadruped with ten legs (Fig. 45 (*c*)). They are often drawn absurdly out of position. In more

Fig. 45 (*a*).—A cat.
1 Whiskers; 2 Tail.

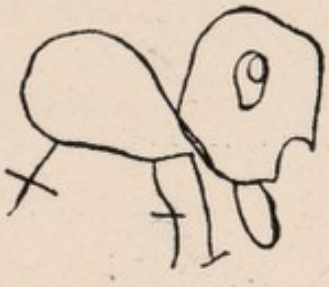

Fig. 45 (*b*).—A bird.

Fig. 45 (*c*).—A quadruped.

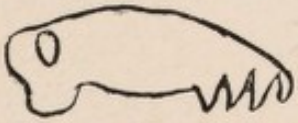

Fig. 45 (*d*).—Some quadruped.

Fig. 45 (*e*).—A mouse.

than one case I find them crowded behind, as in the accompanying drawing of some quadruped by the same little girl that drew the cat and the bird, and in a drawing of a mouse by another child about the same age, *viz.*, three and a half years (Fig. 45 (*d*) and (*e*)). They com-

[1] This is the way in which Mr. Cooke, who sends me these two drawings, explains them to me. The beak (?) in Fig. 45 (*b*) is added to the contour, as is the human nose in a few cases.

monly remain apart from one another throughout their course, following roughly a parallel direction. But this simple scheme is soon modified, first of all by enlarging the space between the fore and the hind legs, and then by introducing some change of direction answering to the look of the animal in motion. This is most easily effected by making the fore and the hind pair diverge downwards, as in Fig. 43 (*b*) and (*c*) (p. 373). In rarer cases the divergence appears between the two legs of the fore and of the hind pair (Fig. 45 (*f*)). The knee-bend is early introduced as a

Fig. 45 (*f*).

Fig. 45 (*g*).

Fig. 45 (*h*).

means of suggesting motion. Either the legs are all bent backwards, as in Fig. 45 (*g*) (*cf.* above, Fig. 44 (*e*)); or, with what looks like a perverted feeling for symmetry, each pair is bent inwardly, as in Fig. 45 (*h*). The forms are often extraordinary enough, a preternatural thickness of leg being not infrequently given, and the knee-joint occasionally taking on grotesque shapes as if the little draughtsman had just been attending a class on the anatomy of the skeleton The hoof is drawn in a still freer manner, various designs, as the bird-foot, the circle, and the looped

pattern, appearing here as in the case of the human foot (Fig. 45 (*i*) and (*j*); *cf.* Figs. 43 (*c*) and 44 (*a*) (p. 373)).

Fig. 45 (*i*).

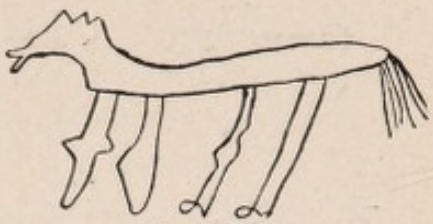

Fig. 45 (*j*).

In this unlearned attempt to draw animal forms the child falls far below the level of the untutored savage. The drawings of animals by the North American Indians, by Africans, and others, have been justly praised for their artistic excellence. A fine perception of form is, in many cases, at least, clearly recognisable, the due covering of one part by another is represented, and movement is vigorously suggested. Lover though he is of animals, the child, when compared with the uncivilised adult, shows himself to be woefully ignorant of his pets.

Men on Horseback, etc.

Childish drawing moves as the dialectic progress of the Hegelian thought from distinction and antithesis to a synthesis or unity which embraces the distinction. After illustrating the human biped in his contradistinction to the quadruped he proceeds to combine them in a higher artistic unity, the man on horseback. The special interest of this department of childish drawing lies in the fresh and genial manner of the combining. To draw a man and a horse apart is one thing, to fit the two figures one to the other, quite another.

At first the degree of connexion is slight. There is no suggestion of a composite or mixed animal, such as may have suggested to the lively Greek imagination the myth of the centaur. The human figure is pitched on to the quadruped in the most unceremonious fashion. Thus in

many cases there is no attempt even to combine the profile aspects, the man appearing impudently in frontal aspect, or what would be so but for the lateral nasal excrescence, as in the accompanying drawing by a boy of five (Fig. 46).

Fig. 46.

With this indifference to a consistent profile there goes amazing slovenliness in attaching the man to the animal, and this whether the front or side view of the human figure is introduced. No attempt is made in many cases to show attachment: the man is drawn just above the quadruped, that is all. It seems to be a chance whether the two figures meet, whether the feet of the man rest circus-fashion on the animal's back, or, lastly, whether the human form is drawn in part over the animal, and, if so, at what height it is to

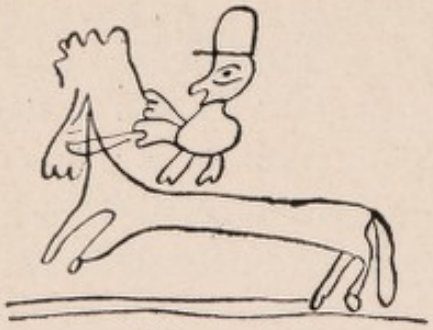

Fig. 47 (*a*).

Fig. 47 (*b*).

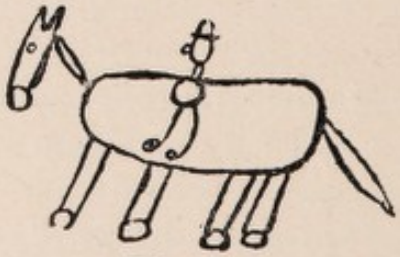

Fig. 47 (*c*).

emerge from the animal's back. Various arrangements occur in the same sheet of drawings (see Fig. 47 (*a*), (*b*) and (*c*)).

When this overlapping takes place the presence of the

animal's trunk makes no difference in the treatment of the man. He is drawn with his two legs just as if he were in relief against the horse; and this arrangement is apt to persist even when a child can draw a rude semblance of a horse and knows at what level to place the rider. So difficult to the little artist is this idea of one thing covering another that even when he comes to know that both the legs of the rider are not seen, he may get confused and erase both (see above (p. 376), Fig. 45 (*f*)).[1]

The savage is in general as much above the child in the representation of the rider as he is in that of the animal apart. Yet traces of similar confusion do undoubtedly appear. Von den Steinen says that his Brazilians drew the rider with both legs showing. Andree gives an illustration, among the stone-carvings (petroglyphs) of savages, of the employment of a front view of the human figure rising above the horse with no legs showing below (Fig. 48 (*a*)).[2] Even among the drawings of the North American Indians, in which the horse is in general so well outlined, we occasionally find what appear to be the germs of confusions similar to those of the child. Thus Schoolcraft gives among drawings from an inscription on a buffalo skin one in which we have above the profile view of a horse the front view of a man, with arms stretched out laterally while the legs are wanting.[3] A clearer case of confusion is supplied by the following drawing, also by a North American Indian, in which the lines of the horse's body cut those of the rider's legs (Fig. 48 (*b*)).[4]

Fig. 48 (*a*).

Fig. 48 (*b*).

[1] *Cf.* Ricci, *op. cit.*, Fig. 21 (p. 27).

[2] *Op. cit.*, pl. ii.; *cf.* pl. vi., where a drawing from Siberia with the same mode of treatment is given.

[3] *Op. cit.*, pt. iv, pl. 31 (p. 251).

[4] From the *Annual Report of the Bureau of Ethnology*, 1882-83, p. 206. The common appearance of both legs in these Indian drawings means, I take it, that the rider is on the side of the horse.

The same tendency to show the whole man where the circumstances hide a part appears in children's drawings of a man in a boat, a railway carriage and so forth. Ricci has shown that the different ways in which the child-artist puts a human figure in a boat are as numerous as those in which he sets it on a horse. The figure may stand out above the boat or overlap, in which last case it may be cut across by the deck-line and its lower part shown, or be clapped wholly below the deck, or again be half immersed in the water below the boat, or, lastly, where an attempt to respect fact is made, be truncated, the trunk appearing

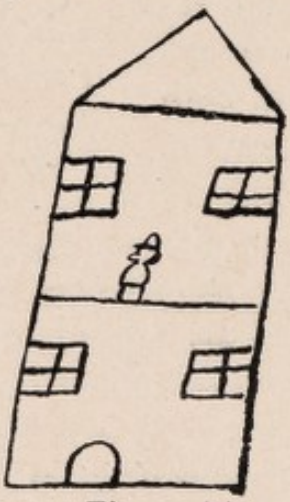

Fig. 49 (*a*).

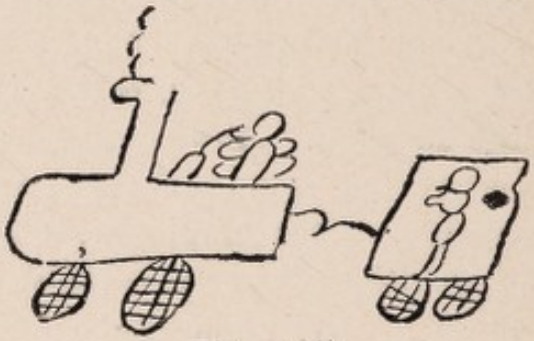

Fig. 49 (*b*).

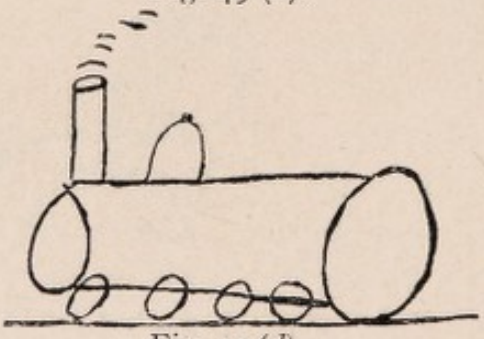

Fig. 49 (*d*).

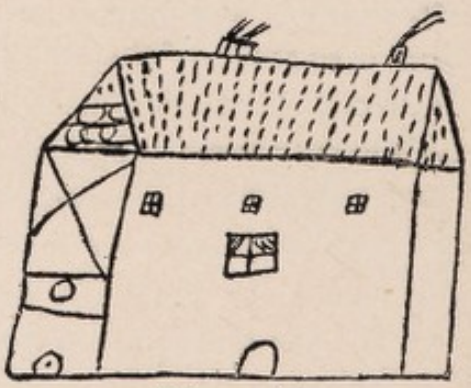

Fig. 49 (*c*).

through the side of the boat, though the legs are wanting.[1] A man set in a house, train, or tram car, is seen in his totality (Fig. 49 (*a*) and (*b*)). It is much the same thing when a child flattens out a house or other object so as to show us its three sides, that is to say one which in reality is hidden (Fig. 49 (*c*) and (*d*)). With these habits of the

[1] See Ricci, *op. cit.*, pp. 17-23.

child may be compared those of the savage. The impulse to show everything, even what is covered, is illustrated in a drawing of a singer in his wigwam by an Indian (Fig. 49 (*e*)).[1] Even where colour comes in and one thing has to be hidden by a part of another thing the savage artist, like the child insists on drawing the whole. This is illustrated in a curious custom, the drawing of two serpents (in dry, coloured powder) by North American fire-dancers. They are drawn across one another, and the artist has first to draw completely the one partly covered, and then the second over the first.[2]

Fig. 49 (*e*).

The child's drawing of the house, though less remarkable than that of the man and the quadruped, has a certain interest. It illustrates, as we have just seen, not merely his determination to render visible what is hidden, but also his curious feeling for position and proportion. In one case I found that in the desire to display the contents of a house a girl of six had actually set a table between the chimneys. The accompanying drawing done by the boy C. at the age of five years five months illustrates the fine childish contempt for proportion (Fig. 50). A curious feature in these drawings of the house is the care bestowed on certain details, pre-eminently the window. This is even a more important characteristic feature than the chimney with its loops of smoke. Some

Fig. 50.

[1] Andree illustrates how in Australian drawings objects behind one another are put above one another as in a certain stage of Egyptian art (see his *Ethn. Parall.* (*neue Folge*), plates i. and ii.).

[2] *Annual Report of Bureau of Ethnology*, 1883-84, p. 444 ff.

children give a quite loving care to the window, drawing the lace curtains, the flowers, and so forth.

Résumé of Facts.

We may now sum up the main results of our study. We find in the drawings of untrained children from about the age of three to that of eight or ten a curious mode of dealing with the most familiar forms. At no stage of this child-art can we find what we should regard as elements of artistic value: yet it has its quaint and its suggestive side.

The first thing that strikes us here is that this child-delineation, crude and bizarre as it is, illustrates a process of development. Thus we have (*a*) the stage of vague formless scribble, (*b*) that of primitive design, typified by what I have called the lunar scheme of the human face, and (*c*) that of a more sophisticated treatment of the human figure, as well as of animal forms.

This process of art-evolution has striking analogies with that of organic evolution. It is clearly a movement from the vague or indefinite to the definite, a process of gradual specialisation. Not only so, we may note that it begins with the representation of those rounded or ovoid contours which seem to constitute the basal forms of animal organisms, and proceeds like organic evolution by a gradual differentiation of the 'homogeneous' structure through the addition of detailed parts or organs. These organs in their turn gradually assume their characteristic forms. It is, perhaps, worth observing here that some of the early drawings of animals are strongly suggestive of embryo forms (compare, *e.g.*, Fig. 45 (*b*) and (*d*), p. 375).

If now we examine this early drawing on its representative side we find that it is crude and defective enough. It proceeds by giving a bare outline of the object, with at most one or two details thrown in. The form neither of

the whole nor of the parts is correctly rendered. Thus in drawing the foot it is enough for the child to indicate the angle: the direction of the foot-line is comparatively immaterial. In this respect a child's drawing differs from a truly artistic sketch or suggestive indication by a few characteristic lines, which is absolutely correct so far as it goes. The child is content with a schematic treatment, which involves an appreciable and even considerable departure from truthful representation. Thus the primitive lunar drawing of the human face is manifestly rather a diagrammatic scheme than an imitative representation of a concrete form.

In this non-imitative and merely indicative treatment there is room for all sorts of technical inaccuracies. Form is woefully misapprehended, as in the circular trunk, the oblong mouth, the claw foot, and so forth. Proportion—even in its simple aspect of equality—is treated with contempt in many instances (*cf.* the legs of the quadruped and the bird in Fig. 45 (*a*), (*b*), and (*c*) (p. 375)). What is no less important, division of space and relative position of parts, which seem vital even to a diagrammatic treatment, are apt to be overlooked, as in drawing the facial features high up, in attaching the arms to the head, and so forth. Even the element of number is made light of, and this, too, in such simple circumstances as when drawing the legs of an animal.

One of the most curious of these misrepresentations comes into view in the third or sophisticated stage, *viz.*, the introduction of more than is visible. This error, again, assumes a milder and a graver form, *viz.*, (*a*) the giving of the features more distinctly and completely than they appear in the object represented, and (*b*) the introducing of features which have no place in the object represented. Examples of the first are the introduction of the nasal angle into the front view of the human face; the separation throughout their length of the four legs of the horse; and such odd

tricks as detaching the reins of the horse from the animal, as in Fig. 51 (*a*). Illustrations of the second are numerous and varied. They include first of all the naïve introduction of features of an object which are not on the spectator's side and so in view, as the second eye and the second arm in what are predominantly profile representations. With these may be classed the attempt to exhibit three sides of a house. Closely related to these errors of perspective is the exposure of objects or parts of objects which are covered by others. It is possible that the spread-eagle arrangement of the two joined arms is an attempt to represent a feature of childish anatomy, *viz.*, the idea that the arms run through and join in the middle of the trunk. A clearer example of this attempt to expose to view what is covered is the exhibition of the whole human figure in a boat, house or carriage. With this may be compared the disclosure of the whole head of a horse when drinking, as in the accompanying drawing by a boy of five (Fig. 51 (*b*)), of the whole head of the man through his hat (see above, p. 350, Fig. 20 (*b*)), and of the human limbs through the clothes (Fig. 41, p. 371).

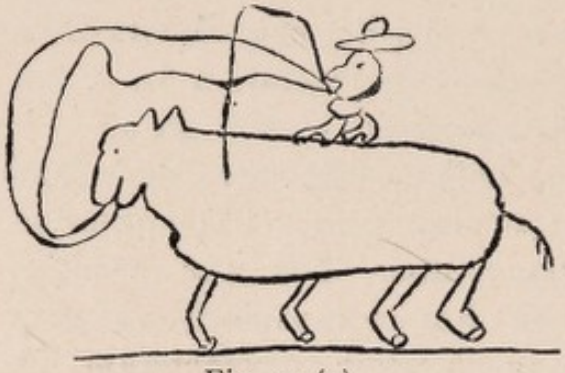

Fig. 51 (*a*).

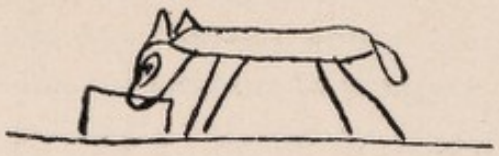

Fig. 51 (*b*).

A class of confusions, having a certain similarity to some of these, consists in the transference of the features of one object to a second, as when a man or quadruped is given a bird-like foot (Figs. 7 (*d*) and 43 (*c*), pp. 342, 373), and still more manifestly when the facial scheme of the man is transferred to the quadruped or *vice versâ* (Fig. 44 (*a*) and (*b*), pp. 373, 374).

These last errors clearly illustrate the tendency to a conventional treatment, a tendency which, as I have observed already, runs through children's spontaneous drawings. This free conventional handling of natural forms has been illustrated in the habitual drawing of the mouth and eyes, and still more strikingly in that of the hands and feet.

Paradoxical though it may seem, these drawings, while in general bare and negligent of details, show in certain directions a quite amusing attention to them. Thus, we find at a very early stage certain details, as the pipe of the man, insisted on with extravagant emphasis; and may observe at a somewhat later stage in the elaborate drawing of hair, buttons, parasol, and so forth, a tendency to give some feature to which the child attaches value a special prominence and degree of completeness.

The art of children is a thing by itself, and must not straight away be classed with the rude art of the untrained adult. As adult, the latter has knowledge and technical resources above those of the little child; and these points of superiority show themselves, for example, in the fine delineation of animal forms by Africans and others.[1] At the same time, after allowing for these differences, it is, I think, incontestable that a number of characteristic traits in children's drawings are reflected in those of untutored savages.

Explanation of Facts.

Let us now see how we are to explain these characteristics. In order to do so we must try to understand what

[1] The tendency to identify the drawings of the child and the savage led to an amusing error on the part of a certain Abbé Domenech, who in 1860 published his so-called *Livre des Sauvages*, which purported to contain the graphic characters and drawings of North American Aztecs, but proved in reality to be nothing but the scribbling book of a boy of German parentage. The drawings are of the crudest, and show the artist to be much more nasty-minded than the savage draughtsmen.

process a child's mind goes through when he draws something, and to compare this with what passes in the mind of an adult artist. The problem has, it is evident, to do with drawing from memory or out of one's head, for though the child may begin to draw by help of models, he develops his characteristic art in complete independence of these.

In order to draw an object from memory two things are obviously necessary. We must have at the outset an idea of the form we wish to represent, and this visual image of the form must somehow translate itself into a series of manual movements corresponding to its several parts. In other words, it presupposes both an initial conception and a correlated process of execution.

In psychological language this correlation or co-ordination between the idea of a form and the carrying out of the necessary movements of the hand is expressed by saying that the visual image, say, of the curve of the full face, calls up the associated image of the manual movement. This last, again, may mean either the visual image of the hand executing the required movement, or the image of the muscular sensations experienced when the arm is moved in the required way, or possibly both of these.

The process of drawing a whole form is of course more complex than this, each step in the operation being adjusted to preceding steps. How far the movements of the draughtsman's hands are guided here by a visual image of the form, which remains present throughout, how far by attention to what has already been set down, may not be quite certain. Judging from my own case, I should describe the process somewhat after this fashion. In drawing a human face we set out with a visual image of the whole, which is incomplete in respect of details, but represents roughly size and general form or outline. This image is projected indistinctly and unsteadily, of course, on the sheet of paper before us, and this projected image controls the whole operation. But as we advance we pay more and more attention to the visual

presentation supplied by the portion of the drawing already produced, and only realise with any distinctness that part of the projected visual image which is just in advance of the pencil.

It is evident that the carrying out of such a prolonged operation involves a perfected mechanism of eye, brain and hand connexions; for much of the manual adjustment is instantaneous and sub-conscious. At the same time the process illustrates a very high measure of volitional control or concentration. Unless we keep the original design fixed before us, and attend at each stage to the relations of the executed to the unexecuted part, we are certain to go wrong.

Practice tends, of course, to reduce the conscious element in the process. In the case of a person accustomed to draw the outline of a human head, a cat or what not, the operation is very much one of hand-memory into which visual representations enter only faintly. The movements follow one another of themselves without the intervention of distinct visual images (whether that of the linear form or of the moving hand). There is an approach here to what happens when we put last year's date to a letter, the hand following out an old habit.

Now the child has to acquire the co-ordinations here briefly described. He may have the visual image of the human face or the horse which he wishes to depict. This power of visualising shows itself in other ways and can be independently tested, as by asking a child to describe the object verbally. But he has as yet no inkling of how to reproduce his image. That his inability at the outset is due to a want of co-ordination is seen in the fact that at this stage he cannot draw even when a model is before his eyes.

The process of learning here is very like what takes place when a child learns to speak. The required movements have somehow to be performed and attached to the effects they are then found to produce. Just as a child

first produces sounds, partly instinctively or spontaneously, partly by imitating the seen movements of another's lips, etc., so he produces lines by play-like scribble and by imitating the visible movements of another person's hand. The tendency to imitate is observable in the first loop-formations, and possibly also in the abrupt angular changes which give a zig-zag look to some of these early tracings.

In this early stage we see a marked want of control. The effort is spasmodic and short-lived: the little draughtsman presently runs off into nonsense scribble. The want of control is seen, too, in the tendency to prolong lines unduly, and to repeat or multiply them, the primitive play-movements being very much under the empire of inertia or habit, *i.e.*, the tendency to repeat or go on with an action. The effect of limitating natural conditions in the motor apparatus is illustrated, not only in the slightly curved form of these first scribble lines, but in the general obliquity or inclination of the line; it being manifestly easier for the hand when brought in front of the body to describe a line running slightly upwards from left to right (or in the reverse direction) than one running horizontally. The want of control by means of a steady visual image is further seen in the absence of any attempt at a plan, at a mapping out of the available space, and at an observation of proportion.

It might be thought that, though a child at this inexperienced stage were unable to produce the correct form of a familiar object, he would at once detect the incorrectness of the one he sets down. No doubt, if he were in the attitude of cold critical observation, he would do so: in fact, as Mr. Cooke and others have shown, he sees the absurdities of his workmanship as soon as they are pointed out to him. But when drawing he is in another sort of mood, akin to that imaginative mood in which he traces forms in the plaster of the ceiling, or in the letters of his spelling-book. He means to draw a man or a horse, and consequently the formless jumble of lines becomes, to his fancy, a man or a

horse. His first drawings are thus, in a sense, playthings, which, like the battered stump of a doll, his imaginative intention corrects, supplements, and perfects.

With repetition, and that amount of supervision and guidance which most children who take a pencil in hand manage to get from somebody, he begins to note the actual character of his line-effects, and to associate these with the movements which produce them. A straight horizontal line, a curved line returning upon itself, and so forth, come to be differentiated, and to be co-ordinated with their respective manual movements.

We may now pass to the second stage, the beginning of true linear representation, as illustrated in the first abstract schematic treatment of the human face and figure.

A question arises at the very outset here as to whether, and if so to what extent, children re-discover this method of representation for themselves. Here, as in the case of child-language, such as 'bow-wow,' 'gee-gee,' tradition and example undoubtedly play their part. A parent, or an older brother and sister, in setting the first models, is pretty certain to adopt a simple scheme, as that of the lunar face; and even where there is no instruction a child is quick at imitating other children's manner of drawing. Yet this does not affect the contention that such manner of drawing is eminently childish, that is, the one a child finds his way to most readily, any more than the fact of the nurse's calling the horse 'gee-gee' in talking to baby affects the contention that 'gee-gee' is eminently a baby-name.

The scanty abstract treatment, the circle enclosing two dots and the vertical and horizontal lines, points to the absence of any serious attempt to imitate a form closely and fully. It seems absurd to suppose that a child of three or four does not image a human face better than he delineates it; and even if this were doubtful it is certain that when he sets down a man without hair, ears, trunk, or arm, his execution is falling far short of his knowledge. How is

this to be accounted for? My explanation is that the little artist is still much more of a symbolist than a naturalist, that he does not in the least care about a full and close likeness, but wants only a barely sufficient indication. This scantiness of treatment issuing from want of the more serious artistic intention is of course supported by technical limitations. The lunar face with the two propping lines answers to what the child can do easily and comfortably. Much more than his elder brethren our small limner is bound by the law of artistic economy, the need of producing his effects with the smallest expenditure of labour, and of making every touch tell.

Defects of executive resource and of manual skill appear plainly in other characteristics. The common inclination of the lines of the legs points to the unconscious selection of easiest directions of manual movement.[1] The unduly lengthened arm and leg, the multiplication of legs—as seen most strikingly in the case of the quadruped—illustrate the influence of motor or muscular inertia. There is, too, a noticeable want of measurement and management of the space to be covered, as when one eye is put in so large as to leave no room for a second, or when filling in details from above downwards the eyes are put in too near the occipital curve, and so all the features set too high up. The same want of measurement of space may contribute to the child's habit of drawing the trunk so absurdly small in proportion to the head; for he begins with the head, and by making this large finds he has not left, within the limits of what he considers the right size of figure, space enough for the trunk.

Very noticeable is the influence of habit in this abstract treatment. By habit I here mean hand-memory, or the tendency to combine movements in the old ways, though this is commonly aided, as we shall see, by "asso-

[1] This is supported, in the case of children who have begun to wield the pen, by the exercises of the copy-book.

ciation of ideas". Thus a child falls into a stereotyped way of drawing the human face and figure; line follows line in the accustomed sequence; the only variation showing itself is in the insertion or omission of nose, ears, or arms; these uncertainties being due to fluctuations of energy and concentration. A child's art is, in respect of its unyielding sameness, a striking example of a conservative conventionality. He gets used to his pencil-forms, and pronounces them right, to the greater and greater neglect of their relation to natural forms. Habit shows itself in other ways too. Notice, for example, how a child, after adding the trunk, will go on inserting the arms into the head as he used to do. Such a habit is an affair not only of the hand but of the eye. The arms have by repeated delineation come in the art-sphere to belong to the head.

Coming now to the more elaborate and sophisticated stage of five or thereabouts, in which the shape of eyes, mouth, and nose is shadowed forth, the difficult appendages as hands and feet attempted, and the profile aspect introduced, we notice first of all a step in the direction of naturalism. The child like the race gets tired of his bald primitive symbolism, and essays to bring more of concrete fulness and life into his forms. Only this first attempt does not lead to a continued progress, but stops short at what is rude and arbitrary enough, substituting merely a second rigid conventionalism for the first.

This transition indicates an advance in technical skill; hence we find a measure of free and bold invention, as in the management of the facial features, *e.g.*, the scissors-shaped nose, and still more in the treatment of hands and feet, which is at once exaggerative, as in the big burr forms, and freely conventional, as in the leaf-pattern for the hand, and the wondrous loop-designs for the foot.

Yet though this freer treatment shows a certain technical advance it illustrates the effect of the limitations of the child's executive power. Thus the new partially pro-

file figures are very apt to lean, looking as if they were falling backwards. It is probable that the wide-spread tendency to make the profile face look towards the spectator's left rather than his right is due to the circumstance that the eye can much better follow and control the pencil in this case than in the opposite one. In the latter the hand is apt to interfere with seeing the line of the face, especially if the pencil is held near its point.

Habit, too, continues to assert its dominion. The tendency noticeable now and again, even among English children, to treat the feet after the manner of the hands illustrates this. Habit is further illustrated in the tendency to a transference of forms appropriate to the man to the animal; or, when (owing to the interposition of the instructor) the drawing of animals is in advance of the other, in the reverse process; as when a cat is drawn with two legs, or a horse is given a man's face, or the human form develops a horse's ears, or a bird's feet. With these may be compared the transference of a bird-like body and tail to a quadruped in Fig. 45 (*i*), p. 377. The accompanying two drawings by a child of six show how similar forms are apt to be used for the man and for the animal (Fig. 52).

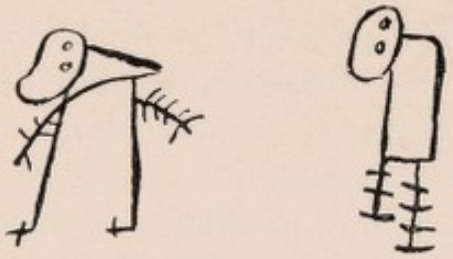

Fig. 52.

But the really noticeable thing in this later sophisticated treatment is the bringing into view of what in the original is invisible, as the front view of the eye as well as both eyes into what otherwise looks a side view of the face, the two legs of the rider and so forth. Here, no doubt, we may still trace the influence of technical limitations and of habit. The influence of the former is seen in the completing of the contour of the head before or after drawing the hat: for the child would not know how to start with the lines which form the commencement of the visible part of the head. The

influence of habit is also recognisable here. A child having learned first of all to draw the front view of the eye, the two eyes and the two legs side by side, tends partly as the result of organised hand-trick, partly in consequence of 'association of ideas,' to go on drawing in the same fashion in the new circumstances. A specially clear illustration of this effect of habit already alluded to is the introduction of the front view of the nose in the mixed scheme. These cases are exactly paralleled by the Egyptian drawing in which while one shoulder is pulled round the other is left in square front view (see above, p. 369, Fig. 39 (*b*)). Still, habit does not account for everything here. It does not, for example, explain why the child brings into view three sides of a house. The technical deficiencies of the small draughtsman, his want of serious artistic purpose, seem an insufficient explanation of these later sophistries. They appear to point plainly to certain peculiarities of the process of childish conception. We are compelled then to inquire a little more closely into the characteristics of children's observation and of their mental representation of objects.

We are apt to think that children when they look at things at all scrutinise them closely, and afterwards imagine clearly what they have observed. But this assumption is hardly justified. No doubt they often surprise us by their attention to small unimportant details of objects, especially when these are new and odd-looking. But it is a long way from this to a careful methodic investigation of objects. Children's observation is for the most part capriciously selective and one-sided. They apprehend one or two striking or especially interesting features and are blind to the rest. This is fully established in the case of ordinary children by the wondrous ignorance they display when questioned about common objects. It is hardly necessary to add that their spontaneous untrained observation is quite unequal to that careful analytical attention to form-elements in their relations which underlies all clear grasp of the direction of

linear elements, the relative position of the several parts of a figure, and proportion.

This being so it may be said that defects of observation are reflected in children's drawing through all its phases. Thus the primitive bare schematism of the human face answers to an incomplete observation and consequently incomplete mode of imagination, just as it answers to a want of artistic purpose and to technical incapacity. How far defective observation assists at this first stage I do not feel sure. Further experimental inquiries are needed on this point. I lean to the view already expressed, that at this stage manual reproduction is far behind visual imagination.

When, however, we come on to the delineation of an object under its different aspects the defects of mental representation assume a much graver character. We must bear in mind that a child soon gets beyond the stage of recalling and imagining the particular look of an object, say the front view of his mother's face, or of his house. He begins as soon as he understands and imitates others' language to synthesise such pictorial images of particular visual presentations or appearances into the wholes which we call ideas of things. A child of four or five thinking of his father or his house probably recalls in a confused way disparate and incompatible visual aspects, the front view as on the whole the most impressive being predominant, though striking elements of the side view may rise into consciousness also. With this process of synthesising aspects into the concrete whole we call a thing there goes the further process of binding together representations of this and that thing into generic or typical ideas answering to man, horse, house, in general. A child of five or six, so far from being immersed in individual presentations and concrete objects, as is often supposed, has carried out a respectable measure of generalisation, and this largely by the help of language. Thus a 'man' reduced to visual terms has come to mean for him (according to his well-known

verbal formula) something with a head, two eyes, etc., etc., which he does not need to represent in a mental picture because the verbal formula serves to connect the features in his memory.

Hence when he comes to draw he has not the artist's clear mental vision of the actual look of things to guide him. He is led not by a lively and clear sensuous imagination, but by a mass of generalised knowledge embodied in words, *viz.*, the logical form of a definition or description. This, I take it, is the main reason why with such supreme insouciance he throws into one design features of the full face and of the profile; for in setting down his linear scheme he is aiming not at drawing a picture, an imitative representation of something we could see, but rather at enumerating, in the new expressive medium which his pencil supplies, what he knows about the particular thing. Since he is thus bent on a linear description of what he knows he is not in the least troubled about the laws of visual appearance, but setting perspective at naught compels the spectator to see the other side, to look through one object at another, and so forth.

Since the process at this sophisticated stage is controlled by knowledge of things as wholes and not by representations of concrete appearances or views, we can understand why the visible result does not shock the draughtsman. The little descriptor does not need to compare the look of his drawing with that of the real object: it is right as a description anyhow. How strongly this idea of description controls his views of pictures has already been pointed out. Just as he objects to a correct profile drawing as an inadequate description, so he objects to a drawing of the hind part of a horse entering the stable, and asks, 'Where is his head?' We may say then that what a lively fancy did in the earlier play-stages childish logic does now, it blinds the artist to the actual look of what his pencil has created.

Use soon adds its magic force, and the impossible

combination, the two eyes stuck on at the side of the profile nose, the two legs of the rider untroubled by the capacious trunk of the animal which he strides, the man wholly exposed to view inside the boat or carriage, gets stereotyped into the right mode of linear description.

All this shows that the child's eye at a surprisingly early period loses its primal 'innocence,' grows 'sophisticated' in the sense that instead of seeing what is really presented it sees, or pretends to see, what knowledge and logic tell it is there. In other words his sense-perceptions have for artistic purposes become corrupted by a too large admixture of intelligence. This corruption is closely analogous to what we all experience when we lose the primal simplicity of the eye for colour, and impart into our 'visual impressions,' as we call them, elements of memory and inference, saying, for example, that a distant mountain side is 'green' just because we can make out that it is grass-covered and know that grass when looked at nearer is of a green colour.

I have dwelt on what from our grown-up standpoint we must call the defects of children's drawing. Yet in bringing this study to a close it is only just to remark that there are other and better qualities well deserving of recognition. Crude, defective, self-contradictory even, as these early designs undoubtedly are, they are not wholly destitute of artistic qualities. The abstract treatment itself, in spite of its inadequacy, is after all in the direction of a true art, which in its essential nature is selective and suggestive rather than literally reproductive. We may discern, too, even in these rude schemes a nascent sense of values, of a selection of what is characteristic. Even the primitive trunkless form seems to illustrate this, for though, as we have seen in a previous essay, the trunk plays an important part in the development of the idea of self, it is for pictorial purposes less interesting and valuable than the head. However this be, it is clear that we see this impulse

of selection at work later on in the addition of the buttons, the pipe, the stick, the parasol and so forth.

It is to be noted, too, that even in these untutored performances, where convention and tradition exercise so great a sway, there are faint indications of a freer individual initiative. Witness, for example, the varying modes of representing hair, hands, and feet. We may say then that even rough children in elementary schools who are never likely to develop artistic talent display a rudiment of art-feeling. It is only fair to them to testify that in spite of the limitations of their stiff wooden treatment they express a certain individuality of feeling and aim, that like true artists they convey a personal impression. These traits appear most plainly in the later representations of action, but they are not altogether absent from the earlier statuesque figures. Compare, for example, the look of alert vigour in Fig. 5 (*a*) (p. 339), of grinning impudence in Fig. 6 (*a*) (p. 341), of provoking 'cheekiness' in Fig. 20 (*b*) (p. 350), of a seedy 'swagger' in Fig. 32 (p. 362), of inebriate gaiety in Fig. 17 (p. 348), of absurd skittishness in Fig. 24 (*b*) (p. 354), of insane flurry in Fig. 26 (*a*) (p. 355), of Irish easy-goingness even when somebody has to be killed in Fig. 34 (p. 363), of wiry resoluteness in Fig. 29 (*a*) (p. 359), of sly villainy in Fig. 38 (p. 365), and of demure simplicity in Fig. 26 (*c*) (p. 356); and note the delicious variety of equine character in Fig. 45 (*f*) (p. 376) and following.

If a finer æsthetic feeling is developed the first rude descriptive drawing loses its attractions. A friend, a well-known psychologist, has observed in the case of his children that when they try to draw something pretty, *e.g.*, a beautiful lady, they abandon their customary mode of description and become aware of the look of their designs and criticise them as bad. This seems to me a most significant observation. It is the feeling for what is beautiful which makes a child attend closely to the bare look of things, and the beginning of a finer observation of forms commonly takes

its rise in this nascent sense of beauty. Indeed, may one not say that only when a germ of the æsthetic feeling for beauty arises, and a child falls in love with the mere look of certain things, can there appear the beginnings of genuinely artistic work, of a conscientious endeavour to render on paper the aspect which pleases the eye?

XI.

EXTRACTS FROM A FATHER'S DIARY.

THERE has just come into my hands a curious document. It is a sort of diary kept by a father in which he chronicles certain of the early doings and sayings of his boy. It makes no pretence to being a regular and methodical register of progress, such as Mr. F. Galton has shown us how to carry out. It may be said by way of extenuation that the diary sets out in the year 1880, that is to say, two years before Professor Preyer published his model record of an infant's progress. *En revanche*, it is manifestly the work of a psychologist given to speculation, and this of a somewhat bold type. In the present paper I propose to cull from this diary what seem to me some of the choicer observations and comments on these. If these do not always come up to the requirements of a rigidly scientific standard in respect of completeness, precision, and grave impartiality, they may none the less prove suggestive of serious scientific thought, while any extravagances of fancy and any levity of manner may well be set down to the play of a humorous sentiment, which betrays the father beneath the observer.

I may begin my sketch of the early history of this boy by remarking that he appears to have been a normal and satisfactory specimen of his class,—healthy, good-natured, and given to that infantile way of relieving the pressure of his animal spirits which is, I believe, known as crowing. Not believing in the classifications of temperament adopted by the physiologists of a past age, the father forbears from describing his child's. For my lady readers I may add that he seems, at least by his father's account, to have been a good-sized, chubby little fellow, fair and rosy in tint, with bright blue eyes, and a

limited crop of golden hair of an exceptionally rich, I don't know how many carat gold, hue. I shall speak of him under his initial, C.

First Year.

The early pages of the record do not, one must confess, yield any very striking observations. This is, no doubt, due to the circumstance that the observer, not being a naturalist, was not specially interested in the dim mindless life of the first weeks. For the first few days Master C. appears to have been content to vegetate like other babies of a similar age. Although a bonny boy, he began life in the usual way—with a good cry; though we now know, on scientific authority, that this, being a purely reflex act, has not the deep significance which certain pessimistic philosophers have attributed to it. Science would probably explain in a similar way a number of odd facial movements which this baby went through on the second day of his earthly career, and which, the father characteristically remarks, were highly suggestive of a cynical contempt for his new surroundings.

Yet, though content in this early stage to do little but perform the vegetal functions of life, the infant comes endowed with a nervous system and organs of sense, and these are very soon brought into active play. According to this record, the sense of touch is the first to manifest itself.[1] Even when only two hours old, at a period of life when there is certainly no sound for the ear and possibly no light for the eye, C. immediately clasped the parental finger which was brought into the hollow of its tiny hand. The functional activity of touch was observed still more plainly on the second day, when the child was seen to carry out awkwardly enough what looked like exploring movements of the hands over his mouth and face. This early development in the child of the tactual sense agrees, says the biographer, with what Aristotle long since taught respecting the fundamental character of this sense, an idea to

[1] Taste, as involved in the necessary act of taking nourishment, is probably at first hardly differentiated from touch.

which the modern doctrine of evolution has given a new significance.

A distinct step is taken during the first four days towards acquiring knowledge of things through a progressive use of the eyes and hands. C.'s father noticed on the second day that a good deal of ocular movement was forthcoming. Much of this was quite irregular, each eye following its own path. Sometimes, however, the eyes moved harmoniously or symmetrically now to this side, now to that, and now and again seemed to converge and fix themselves on some near object in front of them. Sufficiently loud sounds increased these ocular movements.

On the third day the father, when chuckling and calling to the child at a short distance, fondly supposed that his offspring showed appreciation of these attentions by regarding him with a sweet expression and something like the play of a smile about the lips and eyelids. But it is possible that this apparent amiability was nothing but a purely animal satisfaction after a good meal. As to *seeing* his father's face at that early age, there is room for serious doubt. Preyer found that long before the close of the first day his child wore a different expression when his face, turned towards the window, was suddenly deprived of light by the intervention of the professor's hand. If the child is thus sensible to the pleasure of light it is, of course, conceivable that C.'s eyes, happening in their aimless wanderings to be brought together opposite the bright patch of the father's face, might maintain that attitude under the stimulus of the pleasure. The father argues in favour of this view by quoting the fact that C.'s sister was observed on the fourth day to have her eyes arrested by a light or the father's face if brought pretty near the child; yet such blank staring at mere brightness is, of course, a long way off from distinct vision of an object.

On the fourth day, continues the sanguine father, the child showed a distinct advance in the use of the hands. Having clasped his sire's finger he now moved it in what looked like an abortive attempt to carry it to his mouth. There follow some remarks on the impulse of infants to carry objects to their mouths, in which again there seems an approach to frivolity in the conjecture that the human animal previous to

education is all-devouring. It is to be noted, however, that these early movements are probably quite accidental. As we shall see, it is some weeks before the child learns to carry objects to his mouth. As to the connexion between this movement and infantile greed our observer is not so poor a psychologist as not to see that it may be due to the circumstance that the lips and the tip of the tongue form one of the most delicate parts of the *tactual* organ. It is not improbable that in the evolution of man before the tactual sensibility of the hand was developed these parts were chiefly employed as a tactual apparatus in distinguishing and rejecting what is hard, gritty and so forth in food. However this be, it is probable that, as Stanley Hall has suggested, an infant may get a kind of "æsthetic" pleasure by bringing objects into contact with the lips and the gums.

At this period, the diary remarks, the child was very cross for some weeks and not a good subject for observation. This new difficulty, added to that of overcoming natural scruples in his guardians, appears to have baffled the observer for a time, for the next observations recorded take up the thread of the child's history at the sixth week.

About this date, the father notes, the power of directing the eyes had greatly improved. The child could now converge his eyes comfortably and without going through a number of unpleasant squinting-like failures on a near object. The range of sight had greatly increased, so that the boy's universe, instead of consisting merely of a tiny circle of near objects, as his mother's face held close to him, began to embrace distant objects, as the clock, the window, and so forth. He was observed, too, to carry out more precise movements of the head and eyes in correspondence with the direction of sounds. This ability to look towards the direction of a sound is an important attainment as implying that the infant mind has now come to learn that things may exist when not actually seen.

This new command of the visual apparatus led to a marked increase in observation. The boy may indeed be said to have begun about this date something like a serious scrutiny of objects. Like other children he was greatly attracted by

brightly coloured objects. When just seven weeks old he acquired a fondness for a cheap showy card with crudely brilliant colouring and gilded border. When carried to the place where it hung, above the glass over the fire-place, he would look up to it and greet his first-love in the world of art with a pretty smile. By the ninth or tenth week, the father adds, he began to notice the pattern of the wall-paper and the like.

In these growing intervals of observation between the discharge of the vegetal functions of feeding and sleeping, C. was observed to examine not only any foreign object, such as his mamma's dress, which happened to be within sight, but also the visible parts of his own organism. In the ninth week of his existence he was first surprised in the act of surveying his own hands. Why he should at this particular moment have woke up to the existence of objects which had all along lain within easy reach of the eye, is a question which has evidently greatly exercised the father's ingenuity. He hints, but plainly in a half-hearted, sceptical way, at a possible dim recognition by the little contemplator of the fact that these objects belong to himself, forming, indeed, the outlying portion of the Ego. He also asks (and here he seems to grow positively frivolous) whether the child is taking after the somewhat extravagant ways of his mother and beginning to dote on the exquisite modelling of his tiny members.

Psychologists are now agreed that our knowledge of the properties of material objects is largely obtained by what they call *active* touch, that is, by moving the hands over objects and exploring the space around them. This is borne out by the observations made on C. at this period of his existence. While viewing things about him he actively manipulated them. The organs of sight and touch worked indeed in the closest connexion. Thus our little visitor was no mere passive spectator of his new habitat; he actively took possession of his surroundings: like the Roman general, he at once saw and conquered. From the eighth to the tenth week his manual performances greatly improved in quality. He was rapidly learning to carry the organ of touch to the point of which his

eye told him. An account of his progress in reaching objects may however be postponed till we come to speak of the development of his active powers.

The growing habit of looking at, reaching out to, and manually investigating objects, soon leads to the accumulation of a store of materials for the construction of those complex mental products which we call perceptions. And often-repeated perceptions, when they become more clearly distinguished, supply the basis of definite acts of recognition. The first object that is clearly recognised through a special act of attention is, of course, the face of the mother. In the case of C., the father's face was apparently recognised about the eighth week—at least, the youngster first greeted his parent with a smile about this time—an event, I need hardly say, which is recorded in very large and easily legible handwriting. The occurrence gives rise to a number of odd reflexions in the parental mind. The observer's belief in the necessary co-operation of sight and touch in the early knowledge of material objects leads him to remark that C.'s manual experience of his face, and more particularly of the bearded chin, has been extensive—an experience which, he adds, has left its recollection in his own mind, too, in the shape of a certain soreness. He then goes on to consider the meaning of the smile. "I cannot," he writes, "be of any interest to him as a psychological student of his ways. No, it must be in the light of a bearded plaything that he regards my face." Further observation bears out this argument by going to show that the recognition was not individual but specific: that it was simply a recognition of one of a class of bearded people; for when a perfect stranger also endowed with the entertaining appendage presented himself, C. wounded his father's heart by smiling at him in exactly the same way. Here the diary goes off into some abstruse speculations about the first mental images being what Mr. Galton calls generic images—speculations into which we need not follow the writer. As we shall see, the father takes up the subject of childish generalisation more fully later on. The power of recognising objects appeared to undergo rapid development towards the end of the fourth month. The father remarks that the child would about

this time recognise him in a somewhat dark room at a distance of three or four yards.[1]

The germ of true imagination, of the formation of what Höffding calls a free or detached image of something not seen at the moment, appeared about the same time. The moment when the baby's mind first passes on from the sight of his bottle to a foregrasping or imagination of the blisses of prehension and deglutition—a moment which appears to have been reached by C. in his tenth week—marks an epoch in his existence. He not only perceives what is actually present to his senses, he pictures or represents what is absent. This is the moment at which, to quote from the parent's somewhat high-flown observations on this event, "mind rises above the limitations of the actual, and begins to shape for itself an ideal world of possibilities".

This rise of the ideal to take the place of the real appeared in other ways too. Thus when just eighteen weeks old the child had been lying on his nurse's lap and gazing on some pictures on the wall of which he was getting fond. The nurse happening to turn round suddenly put an end to his happiness. Still the child was not to be done, but immediately began twisting his head back in order to bring the pictures once more into his field of view. Here we have an illustration of a mental image appearing immediately after a perception, a rude form of what psychologists are now getting to call a primary memory-image.

The expression of the *gourmet's* delight at the sight of the bottle (tenth week) involves a simple process of association. Between the ages of five and six months the child's progress in building up associations was very marked. Thus he would turn from a reflexion of the fire on the glass of a picture to the fire itself, and a little later would look towards a particular picture, Cherry Ripe, when the name was uttered. Further, not only had he now learnt to connect the sight of the bottle with the joys of a repast, but on seeing the basin in which his

[1] The clear recognition of individual objects is said to show itself in average cases from about the sixth month (Tracy, *op. cit.*, pp. 15-16).

food is prepared he would glance towards the cupboard where the bottle is kept.

The diary contains but few observations on the growth of the power of understanding things and reasoning about them during the first year. One of the most interesting of these relates to the understanding of reflexions, shadows, etc. We know that these things played a considerable part in the development of the first racial ideas of the supernatural, and we might expect to see them producing an impression on the child's mind. C. when he first began to notice reflexions of the fire and other objects in a mirror showed considerable marks of surprise. What quaint fancies he may have had respecting this odd doubling of things we cannot of course say. What is certain is that he distinctly connected the reflexion with the original, as is shown by the fact already mentioned, his turning from the first to the second. By the end of the sixth month the marks of surprise had visibly lessened, so that the child was apparently getting used to the miracle, even though he could not as yet be said to understand it. It is worth notice that though the experiment of showing him his own reflexion was repeated again and again he remained apparently quite indifferent to the image. Perhaps, suggests the father, he did not as yet know himself as visible object sufficiently to recognise nature's portrait of him in the glass.

The above may perhaps serve as a sample of the observations made on the intellectual development of this privileged child during the first year of his earthly existence. I will now pass on to quote a remark or two on his emotional development. I may add that the record of this phase of the boy's early mental life is certainly the most curious part of the document, containing many odd speculations on the course of primitive human history.

The earliest manifestations of the life of feeling are the elemental forms of pain and pleasure, crying and incipient laughing in the form of the smile.[1] In C.'s case, as in others, crying of the genuine miserable kind preceded smiling by a

[1] With the smile there ought perhaps to be taken the infantile crow.

considerable interval. The child, remarks our observer, seems to need to learn to smile, whereas his crying apparatus is in good working order from the first.

The growth of the smile is a curious chapter in child-psychology, and has been carefully worked out by Preyer. The observations on C. under this head are incomplete. The father thought he detected an attempt at a smile on the third day, when the child was lying replete with food, in answer to certain chuckling sounds with which he sought to amuse him. The movements constituting this quasi-smile are said to have been the following: a drawing in of the under lip; a drawing inwards and backwards of the corners of the mouth: increase of oblique line from the corner of the mouth upwards; and a furrowing or ridging of the eyelids. It is probable, however, that this was not a true smile, *i.e.*, an expression of pleasure. He remarks, moreover, that in the case of the child's sister the first approach to a smile was not observed before the tenth day, this, too, by-the-bye, in that state of blissful complaisance which follows a good meal. It may be added that in the case of the brother, too, the smile seems to have grown noticeably bright and significant about the same time (eighth to tenth week). At this stage the boy expressed his pleasure at seeing his father's face not only by a "bright" smile, but by certain cooing sounds. At the same date a playful touch on the child's cheek was sufficient to provoke a smile.[1]

Very early in the infant's course the germs of some of our most characteristic human feelings begin to appear. One of the earliest is anger, which though common to man and many of the higher animals, takes on a peculiar form in his case. Angry revolt against the order of things showed itself early in C.'s case as in that of his sister, the occasion being in each instance a momentary difficulty in seizing the means of appeasing appetite. It is of course difficult to say at what moment the mere vexation of disappointment passes into true wrath, but in this boy's case the father is compelled

[1] Darwin puts the first true smile on the forty-fifth day. The first *quasi*-smiles are probably quite mechanical and destitute of meaning.

to admit that the ugly emotion displayed itself distinctly by the third week.

To detect the first clear signs of a *humane* feeling, of kindliness and sympathy, is still more difficult. Reference has already been made to the signs of pleasure, the smile and the cooing sounds, which C. manifested at the sight of his father's face. About the same time, *viz.*, the ninth and tenth weeks, he began to show himself particularly responsive to soothing sounds. The impulse to imitate soft low sounds was of great service in checking his misery. When utterly broken by grief he would often pull himself together if appealed to by the right soothing sound and join in a short plaintive duet. Such responses like the early imitative smile may, it is true, be nothing but a mechanical imitation, destitute of any emotive significance. It is probable, however, that the first crude form of fellow-feeling, of the impulse to accept and to give sympathy in joy and grief, takes its rise in such simple imitative movements. The first advance to signs of a truer fellow-feeling was made when the child was six and a half months old. His father pretended to cry. Thereupon C. bent his head down so that his chin touched his breast and began to paw his father's face, very much after the manner of a dog in a fit of tenderness. Oddly enough, adds the chronicler, there was no trace of sadness in the child's face. The experiment was repeated and always with a like result. A smile on the termination of the crying completed the curious little play. Who would venture to interpret that falling of the head and that caressing movement of the hand? The father saw here something of a divine tenderness; and I am not disposed to question his interpretation.

Emotion soon begins to manifest itself, too, in connexion with the child's peerings into his new world. As the little brain grows stronger and the organs of sense come under better management, the child spends more time in examining things, and this examination is accompanied by a profound wonder. C. would completely lose himself in marvelling at some new mystery, as the face of a clock, to which he appeared to talk as to something alive, or the play of the sunlight on the wall of his room; and the closeness of his attention was

indicated by the occurrence of a huge sigh when the strain was over.

The directions of this early childish attention are, as in the example of the clock and the sunlight, towards what has some attraction of brightness, or other stimulating quality. The fascination of bright colour for C. has already been referred to. Sounds, too, very soon began to capture his attention and hold it spellbound. Thus it is recorded that in the tenth week the sound produced by striking a wine-glass excited an agreeable wonder. The sound of the piano, by-the-bye, made him cry the first time he heard it, presumably because it was strange and disconcertingly voluminous. But he soon got to like it, and his mother remarked that when his father played the child seemed to grow heavier in her lap, as if all his muscles were relaxed in a delicious self-abandonment.[1]

Certain things became favourite objects of this quasi-æsthetic contemplation. When six weeks old the child got into the way of taking special note of one or two rather showy coloured pictures on the wall. In these it seemed to be partly the brightness of colouring in the picture or the frame, partly the reflexions of objects in the glass covering, which attracted him. Other things which appeared to give him repeated and endless enjoyment of a quiet sort were the play of sunlight and of shadow on the walls of his room, the reflexion of the shooting fire-flame sent back by the window-pane or the glass covering of a picture, the swaying of trees, and the like. He soon got to know the locality of some of his favourite works of art, and to look out expectantly, when taken into the right room, for his daily show.

Yet the new does not always awaken this pleasurable admiration. The child's organism soon begins to adapt itself to what is customary, and sudden departures from the usual order of things come as a shock, jar the nerves, and produce the first crude form of fear. C.'s sensitiveness to the disturbing effect of new and loud sounds has been referred to in speaking of the first impression of the piano. A strong wind making uproar in the trees quite upset him when he was about

[1] See above, p. 195 and p. 308.

five months old, though he soon got over his dislike and would laugh at the wind even when it blew cold. In like manner he appeared to be much put out by the voices of strangers, especially when these were loud. A similar effect of shock showed itself when something in the familiar scene was suddenly transmuted. For example, when just twelve weeks old, he was quite upset by his mother donning a red jacket in place of the usual flower-spotted dress. He was just proceeding to take his breakfast when he noticed the change, at the discovery of which all thoughts of feasting deserted him, his lips quivered, and he only became reassured of his whereabouts after taking a good look at his mother's face.

This clinging to the familiar and alarm at a sudden intrusion of the new into his little world showed themselves in a curious way in his attitude towards strangers. When ten weeks old he would still greet new faces with a gracious smile. But this amiable disposition soon underwent a change. When he began to discriminate people one from another and to single out particular faces, those of the mother, father, sister, etc., as familiar, he took up what looked like a less hospitable attitude towards strangers. By the fifteenth week he no longer greeted their advent with his welcoming smile. A month later the diary chronicles a new development of timidity. He now turned away from a stranger with all the signs of shrinking.[1]

That this repugnance to the new depends on a kind of shock-like effect on the nervous system seems to be borne out by the fact that the same object would produce now joyous admiration, now something indistinguishable from fear, according to the boy's varying condition of health and spirits.

Changes of sentiment analogous to those which marked his behaviour towards strangers occurred in his treatment of inanimate objects. For instance, a not very alarming-looking doll belonging to his sister, after having been a pleasant object of regard, suddenly acquired for him, when he was nearly five months old, a repulsive aspect. Instead of talking to it and making a sort of amiable deity of it as heretofore, he now shrieked when it was brought near. There seems to have been

[1] Compare what was said above, p. 201.

nothing in his individual experience which could account for this sudden accession of fear.

These observations led C.'s father to some characteristic speculations as to the inheritance of certain feelings. Thus he hints that the eerie sort of interest taken by his child in the reflexions of things in the glass may be a survival of the primitive feeling of awe for the ghosts of things which certain anthropologists tell us was first developed in connexion with the phenomena of reflected images and shadows. He goes on to ask whether the fear called forth by the doll and the face of strangers at a certain stage of the child's development is not clearly due to an instinct now fixed in the race by the countless experiences of peril in its early, pre-social, and Ishmaelitic condition. But here, too, perhaps, his speculations appear, in the light of what has been said above, a little wild

Among other feelings displayed by the child was that of amusement at what is grotesque and comical. When between four and five months old he was accustomed to watch the antics of his sister, an elfish being given to flying about the room, screaming, and other disorderly proceedings, with all the signs of a sense of the comicality of the spectacle. So far as the father could judge, this sister served as a kind of jester to the baby monarch. He would take just that distant, good-natured interest in her foolings that Shakespeare's sovereigns took in the eccentric unpredictable ways of their jesters. The sense of the droll became still more distinctly marked at six months. About this date the child delighted in pulling his sister's hair, and her shrieks would send him into a fit of laughter. Among other provocatives of laughter at this time were sudden movements of one's head, a rapid succession of sharp staccato sounds from one's vocal organ (when these were not disconcerting by their violence), and of course sudden reappearances of one's head after hiding in the game of bo-peep.[1]

It is hardly necessary to follow the diary into its record

[1] Darwin tells us that his boy uttered a rude kind of laugh when only one hundred and ten days old, after a pinafore had been thrown over his head and suddenly withdrawn. C.'s sense of humour was hardly as precocious as this.

of the first stirrings of what psychologists used to call the Will (with capital *W* of course). If a baby in the first months can be said to have a will in any sense it must be that unconscious metaphysical "will to live" about which we have recently heard so much. On the other hand it is certainly true that the child manifests in the first weeks certain active impulses, the working out of which leads in about four months to the acquisition of the power of carrying out movements for a purpose. Reference has already been made to this progress in motor activity when speaking of the senses. It may suffice to add one or two further observations.

The father remarks that about the end of the ninth week there was a vigorous use of the muscles of the arms and hands in aimless movement. This superabundance of muscular activity is important, as giving children the chance of finding out the results of their movements. C. was just ten and a half weeks old when he first showed himself capable lying on his back of turning his head to the side, and even of half turning his body also, in order to have a good view of his father moving away to a distant part of the room.

About the same date, too, purposive movements began to be clearly differentiated from expressive movements; such, for example, as the quick energetic movement of the limbs when excited by pleasure. For instance, on the seventy-second day the father was surprised and delighted to see the boy add to the usual signs of joy at his approach the movement of leaning forward and holding out the arms as if to try to get near. Was this, he asks, the sudden emergence of an unlearnt instinct, or was it an imitation in baby fashion of his elders' behaviour when they took possession of him?

The gradual growth of a voluntary movement into a perfect artistic action nicely adjusted to some desired end was strikingly illustrated in the boy's mastery of the grasping movement, the movement of stretching out the hand to seize an object seen. On the seventy-sixth day, the father writes, he had carefully watched to see whether the child could voluntarily direct his hand to an object. He had tried him by holding before him attractive objects, as a bit of coloured rag

or his hand, which he would regard very attentively. For the last week or ten days he had been very observant of objects, including his own hands.

Among the objects that attracted him was his mamma's dress, which had a dark ground with a small white flower pattern. On this memorable day his hand accidentally came in contact with one of the folds of her dress lying over the breast. Immediately, it seemed to strike him for the first time that he could *reach* an object, and for a dozen times or more he repeated the movement of stretching out his hand, clutching the fold and giving it a good pull, very much to his own satisfaction.

A hasty reasoner might easily suppose that the child had now learnt to reach out to an object when only seen. But the sequel showed that this was not the case. Four weeks later the diary observes that the child as yet made no attempt to grasp an object offered to him (although there were manifest attempts to uncover the mother's breast). The clutching at the dress was thus a blind movement due to the stimulus of pleasurable elation. Yet it was doubtless a step in the process of learning to grasp.

The next advance registered occurred when the boy was a little over four months old. He would now bring his two hands together just above the level of his eyes and then gaze on them attentively, striking out one arm straight in front of him, and upwards almost vertically, as if he were trying some new gymnastic exercises, while he accompanied each movement with his eye, and showed the deepest interest in what he was doing. By such exercises, we may suppose, he was exploring space with hand and eye conjointly and noting the correspondences between looking in a given direction and bringing his hand into the line of sight.

The next noticeable advance occurred at the end of the nineteenth week. The boy's father held a biscuit (the value of which was already known) just below his face and well within his reach. There was a very earnest look and then a series of rapid jerky movements of the hands. These were uncertain at first, but on repetition of the experiment soon grew more precise. At first the biscuit was dropped (the child

had not yet learnt to handle things). But after repeated trials he managed to hold on to the treasure and bear it triumphantly to his mouth. The discovery of the new delight of thus feeding himself led to more violent efforts to seize the biscuit when presented again. Indeed, the youngster's impatience led him to reach forward with the upper part of his body so as to seize the biscuit with his mouth. It may be added here as throwing light on the carrying of the biscuit to the mouth that the child had before this acquired considerable facility in raising his hand to his mouth and to the region of his head generally. Thus he had been noticed to scratch his head with a comical look of sage reflexion when he was fifteen weeks old.

The consummation of the act of seizing an object involving a perception of distance was observed when he was just six months old. The father writes: "I held an object in front of him two or three inches beyond his reach. The astute little fellow made no movement. I then gradually brought it closer, and when it came within his reach he held out his hand and grasped it. I repeated the experiment with slight variations, and satisfied myself that he could now distinguish with some degree of precision the near and the far, the attainable and the unattainable, that his eyes could now inform him by what Bishop Berkeley called visual language of the exact limit, the 'Ultima Thule' of his tangible world." It is natural, no doubt, that the father should go off into another high flight here. But being a psychologist he might have moderated his parental elation by reflecting that his wonderful boy had after all taken six months to learn what a chick seems to know as soon as it leaves the shell. It is doubtful, indeed, whether Master C.'s hand could as yet aim with the precision of the beak of the newly hatched chick. If he had only chanced on a later decade he might have known that five months is the time given by a recent authority (Raehlmann) as the period commonly taken in learning the grasping movements, and so had his pride in his boy's achievement wholesomely tempered.[1]

[1] Preyer's boy perfected the action in the fifth month. For differences in precocity here, see F. Tracy, *The Psychology of Childhood*, pp. 12, 13.

These early movements are acquired under the stimulus of certain impulses which constitute the instinctive basis of volition. Thus it is obvious that the movement of carrying to the mouth as also that of reaching and grasping was inspired by the nutritive or feeding instinct, that deep-seated impulse which is common to man and the whole animal kingdom, and is the secret spring of so much of his proud achievement. The impulse to seize and appropriate may perhaps be regarded as an instinct which has become detached from its parental stock, the nutritive impulse. Our observer remarks, with a touch of cynicism, that the predominance of the grasping propensities of the race was illustrated by the fact that his boy only manifested the impulse to relinquish his hold on an object some time after he had displayed in its perfection the impulse to seize or grasp an object. Thus it was some months later that he was first observed deliberately to cast aside, as if tired of it, a thing with which he had been playing.

One of the deepest and most far-reaching instincts is to get rid of pain and to prolong pleasure. In C.'s case the working of the first was illustrated in a large number of movements, such as twisting the body round, scratching the head, and so forth. An illustration of the impulse to renew an agreeable effect occurred in the early part of the eighth month. The child was sitting on his mother's lap close to the table playing with a spoon. He accidentally dropped it and was impressed with the effect of sound. He immediately repeated the action, now, no doubt, with the purpose of gaining the agreeable shock for his ear. After this when the spoon was put into his hand he deliberately dropped it. Not only so, like a true artist, he went on improving on the first effect, raising the spoon higher and higher so as to get more sound, and at length using force in dashing or banging it down.

Children, as everybody knows, are wont to render their elders that highest form of flattery, imitation. Our chronicle is unfortunately rather meagre in observations on the first imitative movements. There is no evidence that the writer went to work in Preyer's careful way to test this capability. He thinks he saw distinct traces of imitation (of

the pointing movement) at the end of the fifteenth week, though he admits that a deliberate attempt to copy a movement was only placed beyond doubt some time later.

There is, I regret to say, a terrible gap in the chronicle between the ninth and the sixteenth month. This is particularly unfortunate because this is just the period when the child is making a beginning at some of the most difficult of accomplishments, *e.g.*, mastering the speech of his ancestors. To make up for this loss, the record becomes fuller and decidedly more interesting as we enter upon the second year. To this next stage of the history we may now pass.

Second Year.

The observations from the date of the resumption of the diary, at the age of sixteen months, begin to have more of human interest about them. It is not till this year has advanced that the child makes headway in handling the knotty intricacies of an elaborate language like ours, and it is through the medium of this mastered speech that he is best able to disclose himself to the observer. The observations on C.'s progress during the second year relate largely to language and intelligence as expressing itself in language. We may, accordingly, begin this section by giving a brief sketch of the child's linguistic progress.[1]

During the first six months nothing was observable in the way of vocal sounds but the ordinary baby-singing utterances of the 'la-la' category. In this tentative vocalisation vowel sounds, of course, preponderated. There was quite a gamut of quaint vowel sounds, ranging from the broad *a* to the cockney *ow*, that is, *a-oo*. These sounds were purely emotional signs. Thus a prolonged *ā* sound indicated surprise with a dash of displeasure when the child suddenly encountered an obstacle to his movements, as on catching his dress or striking his head gently. Again, a kind of *ō* or *oo* sound, formed by sucking in the breath, appeared to indicate that the small person was pleased with some new object of contemplation, as a freshly discovered picture.

[1] This should be read in connexion with Study V.

A sudden enlargement of the range of articulatory excursion was noticeable on the completion of the twenty-seventh week, when C. astonished his parents by breaking out into a series of 'da-da's' and 'ba-ba's' or 'pa-pa's'. These reduplications were quite in keeping with his earlier sounds, *e.g.*, *a-oo*, *a-oo*. He soon followed up this brilliant success by other experiments, as in the production of the sounds *ou-a* and *ditta*, also *ung* and *ang*.[1]

Coming now to the commencement of the true linguistic period, that is to say, when C. had attained the age of sixteen months, we find him by no means precocious in the matter of speech. He reproduced very few of the many names the meaning of which he perfectly understood. As to other verbal signs he seems to have acted on the principle of biological economy, saving himself the articulatory effort. Thus although he used sounds for expressing assent, *viz.*, "ey," with falling inflection, he contented himself in the case of negation with the old declining or refusing gesture, *viz.*, shaking the head. The movement of nodding seems to have been first used as an affirmative sign at the age of seventeen months when he was asked whether his food was hot.[2]

C. illustrated the common childish impulse to mimic natural sounds. Thus when sixteen months old he spontaneously imitated in a rough fashion the puffing sound produced by his father when indulging in the solace of tobacco; and he uttered a similar explosive sound when hearing the wind. Yet this

[1] This rather bald account of early vocal sounds should be contrasted with those of Preyer and others referred to in Study V.

[2] Perez speaks of both the affirmative and negative movement of the head appearing about the fifteenth month (*First Three Years of Childhood*, Engl. transl., p. 21). Darwin finds that the sign of affirmation (nodding) is less uniform among the different races of men than that of negation. According to Preyer, while the gesture of negation appears under the form of a turning away or declining movement as an instinct in the first days of life, the accepting gesture of nodding (which afterwards becomes the sign of affirmation) is acquired and appears much later (see his full account of the growth of these movements, *Die Seele des Kindes*, p. 242).

child does not seem to have been a particularly good illustration of the onomatopoetic impulse.

While the imitative impulse thus aids in the growth of an independent baby vocabulary, it contributes, as we have seen, to the adoption of the language of the community. At first, however, the little learner will not repeat a sound merely in response to another's lead. Many a mother is doubtless able to recall the chagrin which she experienced when on trying to trot out her baby's linguistic powers by giving the lead, *e.g.*, "Say ta-ta to the lady!" the little autocrat obdurately refused to comply with the parental injunction. It is only when what the child himself considers to be the appropriate circumstances recur, and, what is more, when the corresponding feeling is excited in his breast, that he utters the sound. Thus C.'s father observes that though the child will not say "ta-ta" when told to do so, he will say it readily enough when he sees him, hat in hand, moving towards the door. In like manner the father remarks: "He will say, 'Ta' ('thank you'), on receiving something, yet not do so in mere response to me when I say it". Herein, it would seem, the vocal imitation of children is less mechanical and more intelligent than that of animals, as the parrot.

It was not until he was well on in his second year that C. condescended to let his young speech-organ be played on by another's will. By this time, it may be conjectured, associations between sounds and vocal actions had become firm enough to allow of such imitation without a consciousness of exertion or strain. Having no special reason to refuse he very sensibly fell in with others' suggestions. It is not at all improbable, too, that at this stage of development the little vocalist found a pleasure in trying his instrument and producing new effects.

Of course these first tentatives in verbal imitation were far from perfect. At first there was hardly more than a reproduction of the rhythm and the rise and fall of voice, as in rendering 'All gone,' the sign of disappearance, by *a*, *a*, with rise and fall of voice. Like other little people, C. displayed a lordly disposition to save himself trouble and to expect infinite pains from others in the way of comprehension. He was in

the habit of reducing difficult words to fragments, the comprehension of which by the most loyal of attendants was a matter of considerable difficulty. In thus chopping off splinters of words he showed the greatest caprice. In many cases he selected the initial sounds, *e.g.*, "bŏ" for ball, "nō" for nose, "pē" for please. In other cases he preferred the ending, *e.g.*, "ĕk" for cake, "bĕ" for Elizabeth. It looked as if certain sounds and combinations, *e.g.*, *l*, *s*, *fl*, *sh*, etc., lay altogether beyond his gamut. And others seemed to be specially difficult, and so were avoided as much as possible.[1]

While C.'s parents could not help resenting at times an economising of speech-power which imposed so heavy a burden on themselves, they were often amused at the way in which the astute little fellow managed after softening down all the asperities of a name to retain a certain rough semblance of the original. Thus, for instance, sugar became "ooga," biscuit "bĭk," bread and butter "bup," fish "gish" (with soft *g*), and bacon-fat, that is bread dipped in the same, "ak". In some cases it might have puzzled his father to say whether the sound was a reproduction or an independent creation. This remark applies with particular force to the name he gave himself. His real name as commonly used was, I may say, Clifford. Instead of this he employed as the name for himself "Ingi" or "Ningi" (with hard *g*). He stuck to his own invention in spite of many efforts to lead him to adopt the name chosen for him by his parents. And perhaps the sovereignty of the baby was never more clearly illustrated than in the fact that in time he constrained his parents and his sister to adopt his self-chosen prænomen. Possibly his real name was to his ear a hopelessly difficult mass of sound, and "Ningi" seemed to him a fair equivalent within the limits of practicable linguistics for so uncouth a combination.[2] These changes are

[1] *Cf.* above, p. 148 ff.

[2] The supposition that 'Ningi' was easy seems reasonable. First of all it is in part a reduplication like his later name 'Kikkie'. Again, we know that children often add the final *y* or *ie* sound, as in saying 'dinnie' for dinner, 'beddie' for bread. Once more, from the early appearances of 'ng' sound in 'ang,' 'ung,' etc., we may infer it to

interesting as illustrating how the child attends to the general form of the word-sound rather than to its constituent elements.[1] The same thing is seen in the modified form of "Ningi," which he adopted at the beginning of the third year, *viz.*, "Kikkie," where, too, the special impressiveness of the initial sound is illustrated.

It is now time to pass to the most important phase of baby-speech from a scientific point of view, namely, the first use of sounds as general signs, or as registering the results of a generalising process, as when the child begins to speak of man or boy.

It must be confessed that our diary does not give us much that is startling in the way of original generalisation. So far as we can judge, C. was a steady-going baby, not given to wanton caprices. Yet though not a genius he had his moments of invention. One of the earliest illustrations of a free working of the generalising impulse was the extension of the sound "ŏt" (hot). At first he employed this sign in the conventional manner to indicate that his milk or other viand was disagreeably warm. When, however, he was seventeen and a half months old he struck out an original extension of meaning. He happened to have placed before him cold milk. On tasting this he at once exclaimed, "Ot!" It looks as though the sound now meant something unpleasant to taste, though, as we shall see presently, the boy had another sound ("kaka") for expressing this idea.[2] But "ot" was being extended in another way by a process of association. This was illustrated a month later, when the boy pointed to an engraving of Guido's *Aurora*, and exclaimed, "Ot!" His dull parents could not at first comprehend this bold metaphoric use of language, until they bethought them that the clouds on which the aeronauts are sailing are a good deal like a volume of ascending steam.

be easy. Indeed, one observer (Dr. Champneys) tells us that an infant's cry is exactly represented by the sound 'ngä' as pronounced in Germany (*Mind*, vi., p. 105).

[1] See above, p. 157 f.

[2] It has been found that the sensations of hot and cold are readily confused even by adults.

The sounds "kĕ," "kă," and "kăkă" were employed by C. from about the same age (seventeen and a half months) to express what is actually known or simply suspected to be disagreeable to taste or smell, such as a pipe held near him, a glass of beer, a vinegar bottle, and so forth. He had smelt the beer, and learnt its disagreeable odour, and in pronouncing the untried vinegar "kăkă" he was really carrying out a form of reasoning of a simple kind. This sound came to represent a much higher effort of abstraction some weeks later, when it was applied to things so unlike in themselves as milk spilt on the cloth, crumbs on the floor, soiled hands, etc. The idea here seized was plainly that of something soiled or dirty. But this half-æsthetic, half-ethical idea was reached largely by the help of others, more particularly perhaps his sister, who, as elder sisters are wont to do, supplemented the parental discipline by a vigorous inculcation of the well-recognised proprieties.

Another extension of the range of application of names used by others occurred about the same time (end of twentieth month). He employed the sound 'ga' (glass) so as to include a plated drinking cup, which of course others always called 'cup'. This was curious as showing at this stage the superior interest of use (that of drinking utensil) to that of form and colour.

The generalisations just touched on have to do with those qualities and relations of things which strongly impress the baby mind, because they bear on the satisfaction of his wants and his feelings of pleasure and pain. In order to watch the calm movements of the intellect, when no longer urged by appetite and sense, we must turn to the child's first detection of similarities in the objective attributes of things, as their shape, size, colour, and so forth. Here the first generalisations respecting the forms of bodies are a matter of peculiar interest to the scientific observer. The young thinker, with whom we are now specially concerned, achieved his first success in geometric abstraction, or the consideration of pure form, when just seventeen months old. He had learnt the name of his india-rubber ball. Having securely grasped this, he went on calling oranges "bŏ". This left the father in some doubt whether

the child was attending exclusively to form, as a geometrician should, for he was wont to make a toy of an orange, as when rolling it on the floor. This uncertainty was, however, soon removed. One day C. was sitting at table beside his sire, while the latter was pouring out a glass of beer. Instantly the ready namer of things pointed to the bubbles on the surface, and exclaimed, "Bŏ!" This was repeated on many subsequent occasions. As the child made no attempt to handle the bubbles, it was evident that he did not view them as possible playthings. As he got lost in contemplation, muttering, "Bŏ! bŏ!" his father tells us that he had the satisfaction of feeling sure that the young mind was already learning to turn away from the coarseness of matter, and fix itself on the refined attribute of form.

Although this was the most striking instance of pure or abstract consideration of form, attention to the shape of things was proved by many of the simple ideas reached at this stage. It is obvious, indeed, that a ready recognition of any member of a species of animals, as dog, in spite of considerable variations in size and colour, implies a power of singling out for special attention what we call relations of form. And this conclusion is borne out by the fact that by the end of the eighteenth month C. was quite an adept in recognising uncoloured drawings of animal and other familiar forms.

Colour is of course in itself of much more interest to a child than form, since it gives a keen sensuous enjoyment. Our diary furnishes a curious illustration of a propensity to classify things according to their colour. In his nineteenth month C. was observed to designate by the sound "appoo" (apple) a patch of reddish colour on the mantelpiece, which bore in its form no discoverable resemblance to an apple. At the same time, the effect of growing experience and of a deeper scrutiny of things in bringing out the superior significance of form is seen in the fact that this same word "appoo" came subsequently to be habitually applied to things of unlike colours, namely, apples, oranges, lemons, etc. It may be added that the history of this word "appoo" illustrates a process analogous to what Archbishop

Trench (if I remember rightly) has called the degradation of words. When C. first used this name it designated objects simply as visible and tangible ones; he knew nothing of their taste. After he was permitted to try their flavours, the less worthy sensations now added naturally contributed a prominent ingredient to the meaning of the word. Thus, he began to use "appoo" for all edible fruits, including such shapeless masses as stewed apples.

It is not to be expected that children in their first attempts at scrutinising objects should be able to take in completely a complex form, as that of an animal, with all its parts and their relations one to another. C. gave ample proof of the fact that the first generalisations respecting form are apt to be rough and ready, grounded simply on a perception of one or two salient points. Thus, his first use of "bow-wow" showed that the name meant for him simply a four-legged creature. About the fifteenth month this word was thrown about in the most reckless way. Later on, when the canine form began to be disengaged in his mind from those of other quadrupeds, the pointed nose of the animal seems to have become a prominent feature in the meaning of the word. Thus, in his eighteenth month, C. took to applying the name 'bow-wow' to objects, such as fragments of bread or biscuit, as well as drawings, having something of a triangular form with a sharp angle at the apex. It is probable that if our little thinker had been able at this stage to define his terms, he would have said that a "bow-wow" was a four-legged thing with a pointed nose.

Here, however, it is only fair to C. to mention that his mind had at this time become prepossessed with the image of "bow-wow". Not long before the date referred to he had been frightened by a small dog, which had crept unobserved into the room behind a lady visitor, lain quiet for some time under the table, and then, forgetting good manners, suddenly darted out and barked. There were many facts which supported the belief that the child's mind was at this period haunted by images of dogs which approximated in their vividness to hallucinations; and this persistence of the canine image in

the child's brain naturally disposed him to see the "bow-bow" form in the most unpromising objects.

The use of the word "gee-gee," which towards the end of the second year competed with "bow-wow" for the first place in C.'s vocabulary, illustrates the same fact. A horse was first of all distinguished from other quadrupeds by the length of his neck. Thus, when twenty months old, C. in a slovenly way, no doubt, applied the name "gee-gee" to the drawing of an ostrich, and also to a bronze figure representing a stork-like bird. This is particularly curious, as showing how a comparatively unimportant detail of form, as length of neck, overshadowed in his mind at this time what we should consider the much more important feature, the possession of four legs. The following are selected from among many other illustrations of the imperfect observation of complex forms. When twenty-one and a half months old he took to calling all triangular objects, including drawings, "ship". The feature of the ship —as seen in real life and in his picture-books—which had fixed itself in his mind was the triangular sail.[1] A similar propensity to select one characteristic feature was illustrated in another quaint observation of the diary. When twenty-three months old C.'s mother showed him a number of drawings of patterns of dresses, some surmounted by faces, some not. He pointed to one of the latter and said: "No nose!" From this, writes the father, lapsing again into his frivolous vein, it would seem that at this early age he had acquired a dim presentiment of the supreme dignity of the nasal organ among the features of the human countenance.

Progress in the accurate use of words was curiously illustrated in C.'s way of looking at and talking about his fellow-creatures. Oddly enough he began apparently by confusing his two parents, extending the name "ma" to his father till such time as he learnt "papa". Then he proceeded after the manner of other children to embrace within the term "papa" all male adults, whether known to him or not. Thus he applied the name to photographs of

[1] I think this supposition more probable than that the child saw the whole form—hull, masts and sails—as a triangle.

distinguished savants, artists, and poets, which he found in his father's album. When just eighteen months old he was observed to introduce the word 'man'. For instance, he took to calling an etching of a recent British philosopher, and a terra-cotta cast of an ancient Roman one, "man," as well as "papa". Oddly enough, however, members of the other sex were still called exclusively by the name "mamma," though the words "woman" and "lady" were certainly used at least as frequently as "man" in his hearing. This earlier discrimination of individual men than of individual women leads the father into some jocose observations about the more strongly marked individuality of men than of women, observations which would do very well in the mouth of a misogynist of the old school, but are altogether out of date in this advanced age.

By the twentieth month the extension of the name "papa" to other men was discontinued. His father tried him at this date with a photographic album. "Man" was now instantly applied to all male adults, except old ones with a grey beard. To these he invariably applied the name of an old gentleman, a friend of his. A woman was still called "mamma," though the term "lady" ("'ady") was clearly beginning to displace it; and no distinction was drawn between women of different ages. Finally, children were distinguished as boys or girls, apparently according as they were or were not dressed in petticoats.

The reservation of the names "papa" and "mamma" for his parents naturally gave pleasure to these worthy persons. It was something, they said, to feel sure at length that they were individualised in the consciousness of their much-cared-for offspring. This restricted use of the terms may be supposed to have involved a dim apprehension of a special relation of things to the child. "Papa" now carried with it the idea of the man who stands in a particular connexion with C. or "Ningi"; or, to express it otherwise, "man" began to signify those papas who have nothing specially to do with this important personage. This antecedent conjecture is borne out by the fact that the act of distinguishing between his father and other men followed rapidly, certainly within two or three weeks, the

first use of his own name "Ningi". In other words, as soon as his attention began to direct itself to himself, as the centre of his little world-circle, he naturally went on to distinguish between those persons and things that had some special connexion with this centre and those that had not.

The consciousness of self was noticed to grow much more distinct in the second half of this year. As might be expected the first idea of 'self' was largely a mental picture of the body. Thus the father tells us that when eighteen months old the child would instantly point to himself when he heard his name. If his father touched his face asking who that was, he replied, 'Ningi'. Here the corporeal reference is manifest. When just over nineteen months, however, he showed that the idea was becoming fuller and richer with the germ of what we mean by the word personality. Thus when asked to give up something he liked, as the remnant of a biscuit, he would say emphatically, 'No, no! Ningi!' Similarly, when he saw his sister wipe her hands, he would say 'Ningi!' and proceed to imitate the action. By the end of the twenty-first month the child began to substitute 'me' for 'Ningi'.

As we saw above, the child and the poet have this in common, that they view things directly as they are, free from the superficial and arbitrary associations, the conventional trappings, by the additions of which we prosaic people are wont to separate them into compartments with absolutely impenetrable walls. Hence the freshness, the charming originality of their utterances.

For example, C., when eighteen months old, was watching his sister as she dipped her crust into her tea. He was evidently surprised by the rare sight, and after looking a moment or two, exclaimed, "Ba!" (bath), laughing with delight, and trying, as was his wont when deeply interested in a spectacle, to push his mother's face round so that she too might admire it. The boy delighted in such a figurative use of words, now employing them as genuine similes, as when he said of a dog panting after a run, "Dat bow-wow like puff-puff," and of the first real ship which he saw sailing with a rocking movement, "Dat ship go marjory-daw" (*i.e.*, like marjory-daw

in the nursery rhyme). Like many a poet he had his recurring or standing metaphors. Thus, as we have seen, "ship" was the figurative expression for all objects having a pyramidal form. A pretty example of his love of metaphor was his habit of calling the needle in a small compass of his father's "bir" (bird). It needs a baby mind to detect here the faint resemblance to the slight fragile form and the fluttering movement of a bird poised on its wings.

C. illustrates the anthropocentric impulse to look at natural objects as though they specially aimed at furthering or hindering our well-being. Thus he would show all the signs of kingly displeasure when his serenity of mind was disturbed by noises. When he was taken to the sea-side (about twenty-four months old) he greatly disappointed his parent, expectant of childish wonder in his eyes, by merely muttering, "Water make noise".[1] Again, he happened one day in the last week of this year to be in the garden with his father while it was thundering. On hearing the sound he said with an evident tone of annoyance, "Tonna mâ Ningi noi," *i.e.*, thunder makes noise for C., and he instantly added "Notty tonna!" (naughty thunder). Here, remarks the father, he was evidently falling into that habit of mind against which philosophers have often warned us, making man the measure of the universe.

The last quarter of this year was marked in C.'s case by a great enlargement of linguistic power. A marked advance was noticeable in the mastering of the mechanical difficulties of articulation. Thus he would surprise his father by suddenly bringing out new and difficult combinations of sound, as 'flower,' 'water' and 'fetch'. Up to about the twenty-first month C.'s vocabulary had consisted almost entirely of what we should call substantives, such as, 'papa,' 'man,' which were used to express the arrival on the scene and the recognition of familiar objects. A few adjectives, as "ŏt" (hot), "co" (cold), "ni-ni" (nice), and "goo" (good), were frequently used, and were apparently beginning to have a proper attributive function assigned them. But these referred rather to the effect of

[1] He had been at the sea-side a year before this, but there was no evidence of his having remembered it.

things on the child's feeling than to their inherent qualities. His father failed before this date to convey to him the meaning of "black" as applied to a dog. It is noteworthy that the child made considerable advance in the use of "me" and "my" before he was capable of qualifying objects by appending adjectives to them. The first use of an adjective for indicating some objective quality in a thing occurred at the end of the twenty-first month, when he exclaimed on seeing a rook fly over his head, "Big bir!"

At about the same date other classes of words came to be recognised and used as such, giving to the child's language something of texture. Thus relations of place began to be set forth, as in using simple words like 'up,' 'down,' 'on'. In some cases the designation of these relations was effected by original artifices which often puzzled the father. For instance the sound 'da' (or 'dow') was used from about the seventeenth month for the departure of a person, the falling of a toy on the ground, the completion of a meal. It seemed to be a general sign for 'over' or 'gone'.[1] It is doubtful whether this implied a clear consciousness of a relation of place. Sometimes the attempt to express such a relation in the absence of the needed words would lead to a picturesque kind of circumlocution. Thus when about twenty-one months old C. saw his father walking in the garden when he and his sister were seated at the luncheon table. He shouted out, 'Papa 'at off!' thus expressing the desirability of his father's entering and taking part in the family meal.

Similar make-shifts would be resorted to in designating other and more subtle relations. Sometimes, indeed, the child would expect his hearers to supply the sign of relation, as when after having smelt the pepper box he put it away with an emphatic 'Papa!' which seemed to the somewhat biassed observer an admirably concise way of expressing the judgment that the pepper might suit his father, but it certainly did not suit him. A month later (*æt.* twenty-two months) he condescended to be more explicit. Having been told by his father that the cheese

[1] Compare above, p. 162.

was bad for Ningi, he indulged a growing taste for antithesis by adding, 'Good, papa!'

His ideas of time-relations were at this date of the haziest. He seems to have got a dim inkling of the meaning of 'by-and-by'. His father had managed to stop his crying for a thing by promising it 'by-and-by'. After this when crying he would suddenly pull up, and with a heroic effort to catch his breath would exclaim, 'By-'n'-by!' "What (asks the father) was the equivalent of this new symbol in the child's consciousness? Was he already beginning to seize the big boundless future set over against the fleeting point of the present moment and holding in its ample bosom consolatory promises for myriads of these unhappy presents?" and so forth; but here he seems to grow even less severely scientific than usual. It may be added that about the same time (twenty-one months) the child began to use the word 'now'. Thus after drinking his milk he would point to a little remainder at the bottom of his cup and say, 'Milk dare now,' that is presumably 'there is still milk there'.

His ideas of number at this time were equally rudimentary. Oddly enough it was just as he was attaining to plurality of years that he began to distinguish with the old Greeks the one from the many. One was correctly called 'one'. Any number larger than one, on the other hand, was sometimes styled 'two,'[1] sometimes 'three,' and sometimes 'two, three, four'. He had been taught to say 'one, two, three, four,' by his mother, but the first lesson in counting had clearly failed to convey more than the difference between unity and multitude. The series of verbal sounds, 'two, three, four,' probably helped him to realise the idea of number, and in any case it was a forcible way of expressing it.

As suggested above, primitive substantive-forms probably do duty as verbs in the language of the child as in that of primitive man. True verbs as differentiated signs of action came into use at the date we are speaking of, and these began to give to the boy's embryonic speech something of the structure, the sentence.

As one might naturally conjecture from the disproportionate amount of attention manifestly bestowed on this child, he had

[1] I find that another little boy when two years old used 'two' in this way for more than one.

all the masterfulness of his kind, and the first form of the verb to be used was the imperative. Thus by the end of the twentieth month he had quite a little vocabulary for giving effect to his sovereign volitions, such as, 'On!' (get on), 'Ook!' (look). It was in the use of commands that he showed some of his finest inventiveness. Thus when just seventeen months old he wanted his mother to get up. He began by lifting his hands and saying, 'Ta, ta!' (sign of going out). Finding this to be ineffective, he tried, with a comical simulation of muscular strength, to pull or push her up, at the same time exclaiming, "Up!" The lifting of the hands looked like a bit of picturesque gesture-language. In his twenty-first month he acquired a new and telling word of command, *viz.*, 'Way' (*i.e.*, out of my way), as well as the invaluable sign of prohibition, 'Dō' (*i.e.*, don't), both of which, it need hardly be said, he began to bandy about pretty freely, especially in his dealings with his sister.

A landmark in C.'s intellectual development is set by the father at the age of nineteen and a half months. Before this date he had only made rather a lame attempt at sentence-building by setting his primitive names in juxtaposition, *e.g.*, 'Tit, mamma, poo,' which being interpreted means, 'Sister and mamma, have pudding'. But now he took a very decided step in advance, and by a proper use of a verb as such constructed what a logician calls a proposition with its subject and predicate. He happened to observe his sister venting some trouble in the usual girlish fashion, and exclaimed, 'Tit ki' (sister is crying), following up the assertion by going towards her and trying to stop her. Another example of a sentence rather more complex in structure which occurred a fortnight later had also to do with his sister. He saw her lying on her back on the grass, and exclaimed with all the signs of joyous wonder, 'Tit dow ga!' (*i.e.*, sister is down on the grass). Evidently the unpredictable behaviour of this member of his family deeply impressed the young observer. It is noticeable that these first exceptional efforts in assertion were prompted by feeling.[1]

[1] Compare above, p. 171 f.

These first tentatives in verbal assertion, we are told, sounded very odd owing to the slowness of the delivery and the stress impartially laid on each word. C. had as yet no inkling of the subtleties of rhetoric, and was too much taken up with the weighty business of expressing thought somehow to trouble about such niceties as relative emphasis, and variation of pitch and pace.

As a rule, remarks the father, it was surprising how suddenly, as it seemed, the boy hit on the right succession of verbal sounds. Only very rarely would he stumble, as when after having seen a fly taken out of his milk, and on being subsequently asked whether he would not be glad to see his sister on her return from a visit, he said, '(Y)es, tell Ningi 'bout fy' (Yes, Ningi will tell her about the fly).[1]

The impulse to express himself, to communicate his experiences and observations to others, seemed to be all-possessing just now, and odd enough it was to note the makeshifts to which he was now and again driven. One day, when just twenty and a half months old, he sat in a chair with a heavyish book which he found it hard to hold up. He turned to his mother and said solemnly, "Boo go dow" (the book is going down or falling). Then, as if remarking a look of unintelligence in his audience, he threw it down and exclaimed, "Dat!" by which vigorous proceeding he gave a vivid illustration of his meaning.

It was noticeable that he would at this time play at sentence-making in a varied imitation of others' assertions, thereby hitting out some quaint fancy which appeared to amuse him. Thus when told that there is a man on the horse he would say, 'Ningi on horse,' 'Tit on horse,' and so forth. Such playful practice in utterance probably furthers the growth of readiness and precision in the use of sentences.

The point in the intellectual growth of a child at which he acquires such a mastery of language as to carry on a sustained conversation is a proud and happy one for the fond parent. In the case of C. this date, twenty-three months and ten days, is, of course, marked with red letters. He made a great noise

[1] See above, p. 173.

running about and shouting in his bedroom. His mother came in and rebuked him in the usual form ('Naughty! naughty!'). He thereupon replied, "Tit mak noi" (Sister makes the noise). Mother (seriously): "Sister is at school". C., with a still bolder look: "Mamma make noi". Mother (with convulsive effort to suppress laughing, still more emphatically): "No, mamma was in the other room". C. (looking archly at his doll, known as May): "May make noi". This sally was followed by a good peal of boyish laughter.

The father evidently feels that this incident is highly suggestive of a lack of moral sense. So he thinks it well to add to the observation that the child had all the normal moral sensibility. But of this more presently.

We may now pass to the comparatively few observations (other than those already dealt with under verbal utterance) which refer to the child's feelings. As already remarked, he was, like most other children, peevish and cross in the first year, and I regret to say that the diary refers more than once to violent outbursts of infantile rage in the second year also. Here is one sample entry (*æt.* nineteen months): Feelings of greediness, covetousness and spite begin to manifest themselves with alarming distinctness. When asked to give up a bit of pudding he says, "No," in a coy, shy sort of manner, turning away. When further pressed he grows angry. On the other hand, he clamours for his sister's dolls, and bears refusal with very ill grace. When, given up as hopelessly naughty, he is handed over to the nurse, and carried out of the room by this long-suffering person, he ferociously slaps her on the face. This slap appears not to be a pure invention, his sister having been driven more than once to visit him with this chastisement. He will also go up and slap his sister when she cries. He probably puts the nurse who carries him out and the sister who cries in the same category of naughty people. Sometimes he seems quite overpowered by vexation of spirit, and will lie down on the floor on his face and have a good, long, satisfying cry.

The child's timidity has already been touched on. At the age of sixteen months, we are told, the sight of the drawing of

a lion accompanied by roaring noises imitated by the father would greatly terrify him, driving him to his mother, in whose bosom he would hide his face, drawing down his under lip in an ominous way. Two months later the diary tells us that the child has had a fright. One day a lady called with a dog, which secreted itself under the table, and later on suddenly rushed out and made for Master C. The shock was such that since that time whenever he hears a strange noise he runs to his mother, exclaiming, 'Bow-wow!' in a terrified manner.

Before the close of the year, however, he began to show a manlier temper. The sight of a dog still made him run towards his mother and cling to her, but as soon as the animal moved off he would look up into her face laughingly and repeat the consolatory saying which she herself had taught him: "Ni (nice) bow-wow! bow-wow like Ningi". In this humble fashion did he make beginning at the big task of manning himself to face the terrors of things.

As pointed out above, he extended his dislike to sudden and loud noises to inanimate objects. Thus in the last week of the year he was evidently put out, if not actually frightened, by hearing distant thunder; and about the same date, as we have seen, he showed a similar dislike to the sea when first taken near it. He would not approach it for some days, and he cried when he saw his father swimming in it.

It is sad in going through the pages of the diary to note that there is scarcely any observation during this second year on the development of kindly feelings. One would have supposed that with all the affection and care lavished on him C. might have manifested a little tenderness in response. The only incident put down under the head of social feeling in this year is the following (*æt.* twenty months): "When he eats porridge in the morning at the family breakfast he takes a look round and says: 'Mamma, Tit, papa, Ningi,' appearing to be pleased at finding himself sharing in a common enjoyment. This (continues the narrator) is a step onward from the anti-social attitude which he took up not long since when some of his mother's egg was given to his sister and he shouted prohibitively: 'No! no!'"

The worthy parent appears to be making the most of very small mercies here. Yet in justice to this child it must be said that he seems to have shown even at this tender age the rudiment of a conscience. The father is satisfied, indeed, that he displayed an instinctive respect for command or law. "Thus," he says, "when sixteen months old the child hung down his head or hid it in his mother's breast when for the first time I scolded him." He goes on to say that after having been forbidden to do a thing, as to touch the coal scuttle or to take up his food with his fingers, he will stop just as he is going to do it, and take on a curious look of timidity or shamefacedness.

He seemed, too, before the end of the second year, to be getting to understand something of the meaning of that recurrent nursery-word 'naughty,' and the less frequent 'good'. When seventeen months old his father tried him, on what looked like the approach of an outburst of temper, with a 'Cliffy, be good!' uttered in a firm peremptory manner. The child's noise was at once arrested, and on the father's asking: 'Is Cliffy good?' he answered, 'Ea,' his sign for 'yes'. A little later he showed that he strongly disliked being called naughty,—vigorously remonstrating when so described with an emphatic, 'No, no! good!' He seems to have followed the usual childish order in beginning to apply "naughty" to others, his sister more particularly, much sooner than "good". It was not till the middle of the twenty-first month that he recognised moral desert in this long-suffering sister. After a little upset of temper on her part, when the crying was over, he remarked in a quiet approving tone, 'Goo!' and on being asked by his mother who was good he answered, 'Tit'.

As our example of his dawning powers of conversation may suggest, C. early developed the childish sense of fun. Most if not all children love pretence or make-believe. Here is an example of this childish tendency. When about eighteen months old during a short visit to his father's room C. happened to be walking in the direction of the door. His father at once said, 'Ta ta,' just as if the child were really going away. C. instantly entered into the joke, repeating the

'ta ta,' moving towards the door, then returning, and so renewing the pretty little fraud.

Sometimes, as parents know, this impish love of make-believe comes very inconveniently into conflict with discipline and authority. One day, about the same date, he got hold of a photograph portrait of an uncle of his. His mother bade him give it up to her. He walked towards her looking serious enough, nearly put it into her hand, and then suddenly drew his hands back laughing.

In other examples of laughter given in this chapter we see something very like contempt. When two years and eight months old he was observed to laugh out loudly on surveying his small india-rubber horse, the head of which had somehow got twisted back and caught between the hind legs and the tail. He then waxed tender and said pityingly, "Poor gee-gee!" "Here," writes the father in his most ponderous manner, "we see an excellent example of the capricious and variable attitude of the childish mind towards its toys, an attitude closely paralleled by that of the savage towards his fetich."

The two or three notes on the development of the active powers have to do with the application of intelligence to manual and other performances. Here is one. At the age of seventeen months he was sitting at table with the family when he found himself in want of some bread and butter. He tried his customary petition, 'Bup,' but to no purpose. He then stretched out his hand towards the bread knife, repeating the request. A day or two after this the father put his inventive powers to a severer proof. He placed the knife out of his reach. When the desire for more recurred he grew very impatient, looking towards his father and saying 'Bup' with much vehemence of manner. At length, getting more excited, he bethought him of a new expedient and pointed authoritatively to his empty plate.

Some of these practical tentatives were rather amusing. One day, just a month after the date of the last incident, he had two keys, one in each hand. With one of these he proceeded to try the keyhole of the door, oddly enough, however, holding it by the wrong end and inserting the handle. Now

came the difficulty of turning it. Two hands at the very least were needed, but unhappily the other hand was engaged with the second key, which was not to be relinquished for an instant. So the little fellow, with the inventive resource of a monkey (the father naturally says of an 'engineer'), proceeded to use his teeth as pincers, clutching the obstinate key between these and trying to turn it with the head. At this date he had acquired considerable skill in the manipulation of door handles and keys. A certain cupboard was a peculiarly fascinating mystery, appealing at once to the desires of the flesh and to a disinterested curiosity, and he was soon master of the 'open sesame' to its spacious and obscure recesses.

By far the most respectable exhibition of will about this time was in the way of self-restraint. I have already remarked how he would try to pull himself together when prostrated by fear of the dog. A similarly quaint attempt at self-mastery would occur during his outbreaks of temper. The father says he had got into the way, when the child was inclined to be impatient and teasing, of putting up his finger, lowering his brow, and saying with emphasis: 'Cliffy, be good!' After this when inclined to be naughty he would suddenly and quite spontaneously pull himself up, hold up his finger and lower his brow as if reprimanding himself. "The observation is curious," writes the father, in his graver manner, "as suggesting that self-restraint may begin by an imitation of the action of extraneous authority."[1]

Third Year.

One cannot help regretting on entering upon the third chapter of C.'s biography that the father gives us no account of his physical development. This is a desideratum not only from a scientific but from a literary point of view. Biographers rightly describe the look of their hero, and, if possible, they aid the imagination of their reader by a portrait. The reader of this child's history has nothing, not even a bare reference to height, by which he can form an image of the concrete person-

[1] Compare the similar instances given above, p. 287.

ality whose sayings and doings are here recorded; and these sayings and doings begin now to grow really interesting.

There is very little in the notes of this year respecting the growth of observation. When the child was two years five months old the father appears to have made a rather lame attempt to determine the order in which he learnt the colours. He says that he placed the several colours before him and taught him the names, and found as a result that the order of acquisition was the following: red, blue, yellow, and green. It is added that blue was distinguished some time before green. His observations, taken along with those of Preyer and others, are interesting as seeming to suggest that the order in which the colours are learnt differs considerably in the case of individual children.[1] In the eighth month of this year we find a note to the effect that the boy discriminates and recognises colour well. This is illustrated by the fact that he at once calls grey with a slightly greenish tinge 'green'. The connexion between the possession of suitable vocables and explicit discrimination is seen in the fact that whereas he applies the name blue not only to the several varieties of that colour but also to violet, he uses "red" as the name for certain reds only, excepting pink, which is called "pink," and deep purple red, which is called "brown".

The third year is epoch-making in the history of memory. It is now that impressions begin to work themselves into the young consciousness so deeply and firmly that they become a part of the permanent stock-in-trade of the mind. The earliest recollections of most of us do not reach back beyond this date, if indeed so far. In C.'s case the father was able to observe this fixing and consolidating of impressions. For instance, when two years and two months old he had been staying for a month or so at a farmhouse in a little sea-side village, D——, where there was a sheep dog yclept Bob. Some three and a half months later he happened, during one of his walks in his London suburb, to see a sheep dog, whereupon he remarked, 'Dat old Bob, I dink'. A week or two after this, on seeing the picture of a wind-mill, he remarked, "Dat like down at

[1] See above, p. 19 f.

D——". Later on, six months after this visit, on being asked what honey was, he remarked that he had had some at D——. Nine months after this visit his father was talking to him about the game of cricket. He then said, "*Oh*, yes (his favourite expression just now when he understands), I 'member, Jingo ran after ball down at D——". As a matter of fact his father and friends used to play tennis at D——, and Jingo, the sheep dog, did pretend to 'field' the balls, often in a highly inconvenient fashion.

It is evident from these quotations that the experiences at D——, just at the beginning of the third year, had woven themselves into the tissue of his permanent memory. The father remarks in a footnote that C. retains a certain recollection of D—— at present, that is to say, in his fourteenth year.

These lively recallings show a growth of imaginative power, and this was seen in other ways too. Thus it is remarked by the father in the fourth month of the year that he was getting much comfort from anticipation. If there are apples or other things on the table which he likes but must not have, he will philosophically remark, "Ningi have apples by-and-by when he big boy". He says this with much emphasis, rising at the end to a shouting tone, and half breaking out into jubilant laughter.

The childish power of vivid imaginative realisation was abundantly illustrated in his play. Here is a sample (end of fourth month). His sister went to the end of the room and said (with a reference to their recent visit to the sea-side): 'I'm going far away on the beach'. He then began to whisper something, and went under the table and said distinctly: 'Ningi go away from Tit, far away on beach'. He repeated this with tremulous voice, and at length burst out crying. He wept also when his sister pretended to do the same, so that these little tragic representations had to be stopped as dangerously exciting.

It has often been said that 'fibbing' in young children is the outcome of a vivid imagination. C. illustrated this. As the example given under the second year shows, his daring in inventing untruth and passing it off as truth was pure play, and frankly shown to be so by the accompaniment of a hearty

laugh. This tendency to invent continued to assert itself. Thus when (in the eighth month) he is asked a question, as, "Who told you so?" and has no suitable answer ready he will say, 'Dolly,' showing his sense of the fun of the thing by a merry laugh. The father remarks that it is a little difficult to bring heavy moral artillery to bear on this playful fibbing which is evidently intended much more to astonish than to deceive.[1]

We may now see what progress C. was making in thinking power during this year. It is during the third year that children may be expected to get a much better hold on the slippery forms of language, and at the same time to show in connexion with a freer and more extensive use of language a finer and deeper insight into the manifold relations of things.

In C.'s case, to judge by the journal, the progress of speech advanced at a normal pace, neither hurrying nor yet greatly loitering. Articulation, the father remarks early in the year, has got much more precise, only a few sounds seeming to occasion difficulty, as for example the initial *s*, which he transforms into an aspirate, saying, for example, 'huga' for sugar.

A noticeable linguistic advance is registered in the fourth month of the year, *viz.*, a kind of sudden and energetic raid on the names of objects and persons. "He is always asking the names of things now (writes our chronicler). Thus, after calling a common object, as a brush, by its name he will ask me, 'What is the *name* of this?' Perhaps he thinks that everything has its own exclusive or 'proper' name as he has. He is beginning to note, too, that some things have more than one proper name, that his mother, for example, though called 'ma' by himself, is addressed by her Christian name by me, and so forth. When asked, 'What is Ningi's name?' he now answers, 'Kifford'."

What is far more significant, he now (*æt.* two years three months) began to use 'you' in addressing his father or mother, also 'me' and 'I'. But these changes are so momentous and epoch-making in the history of the young intelligence that they will have to be specially considered later on.

[1] Compare above, p. 254.

Like other children he showed a fine contempt for the grammatical distinctions of pronominal forms. Thus 'me' was used for 'mine,' 'her' for 'she,' 'she's' for 'hers,' 'him' for 'he' and for 'his,' 'us' for 'our,' and so forth.[1] It is pretty clear that none of these solecisms was due to an imitation of others' incorrect speech, and they appear to show the action of the principle of biological economy, a few word-sounds being made to do duty for a number of relations (*e.g.*, in the use of 'me' for 'my'), and familiar word-sounds being modified according to analogy of other modifications where older people use a quite new form ('she's' for 'hers'). A similar disposition to simplify and rationalise the tongue of his ancestors showed itself in the use of verbs. Thus, if his mother said, 'Cliffy, you are not good,' he would reply in a perfectly rational manner, "Yes, I are". "It was odd," writes the father, "to hear him bring out in solemn judge-like tones such terrible solecisms as 'Him haven't,' yet there was a certain logical method in his lawlessness." Another simplification on which he hit in common with other children was the use of 'did' as a sign of past tense, thus saving himself all the trouble of understanding the irregular behaviour of our verbs.[2]

One or two quaint applications of words are noted. Thus towards the end of the third month of this year he took to using 'cover' in a somewhat puzzling fashion. Thus he once pointed to the back of his hand and remarked, 'No milk on this cover'. The father suspects that the term connoted for his consciousness an outside part or the outer surface of an object.

A very noticeable improvement took place in the forming

[1] Later on towards the end of the year he oddly enough seemed disposed to reverse his early practice, using for example 'she' for 'her,' and even going to the length of correcting his sister for saying 'Somebody gave her,' by remarking with all the dogmatism of the most pedantic of grammarians, "No, E., you must say 'Gave she'".

[2] Compare above, p. 176 f. C.'s father probably makes too much of the principle of economy here. Thus, like other children, the boy was wont to use double negatives, *e.g.*, "Dare isn't no water in dat cup," where there is clearly a redundance

of sentences. All sorts of questions (writes the chronicler) are now put correctly and neatly, as, 'Where are you going to?' 'Where did that come from?' He is now striking out most ambitiously in new and difficult directions, not fighting shy even of such school-horrors as conditional clauses (as they used to be called, at least). Very funny it must have been to watch these efforts, and the ingenuities of construction to which the little learner found himself driven. For example, he happened one morning (end of fourth month) when in his father's bedroom to hear a knocking in the adjoining room. He walked about the room remarking to himself, 'I can't make out somebody,' which seemed his own original fashion of avoiding the awkwardness of our elaborate form, "I can't make out who the person is (that is knocking)". A still quainter illustration of the skill with which he found his way out of linguistic difficulties is the following. His sister once said to him (first week of fifth month), 'You had better not do that,' whereupon he replied, "I think me better will". Here is a sample of his mode of dealing with conditionals (end of sixteenth month), "If him (a tree) would be small, I would climb up".

His highly individualised language, remarks the father, was rendered more picturesque by the recurrence of certain odd expressions which he picked up and applied in his own royal fashion. One of these was, "Well, it might be different," which he often used when corrected for a fault, and on other occasions as a sort of formula of protestation against what he thought to be an exaggerated statement.

We may now notice some new manifestations of thinking power. All thought, we are told, proceeds by the finding out of similarities and dissimilarities. C. continued to note the resemblances of things. Thus one day (end of second month) he noticed the dog Jingo breathing quickly after a smart run and observed, 'Like puff-puff'. But what was much more noticeable this year was the boy's impulse to draw distinctions and contrasts. It may certainly be said in his case that likeness was distinctly apprehended before difference, that in the development of his rhetoric the antithesis followed the simile. One of the first contrasts to imprss the tender con-

sciousness of children is that of size. This comes out among other ways in their habit of setting their own puny persons in antithesis to big grown-up folk, a habit sufficiently attested by the recurring expressions, "When I am big," "When I am a man". C., like other children, took to denoting a contrast of size by a figurative extension of the relation, mamma—baby. Thus it was noted (end of seventh month) that he would call a big tree "mamma tree," and a shrub "baby tree". One day he pointed to the clock on the mantelpiece and talked of the 'big mamma clock'. He had, it seems, just before been playing with his father's watch, which he also called clock.[1]

This love of contrasting appeared in a striking manner in connexion with the use of propositions. If, for example (third month), his father says, "That's a little watch," he at once brings out the point of the statement by adding, 'That not a big watch'. The same perception of contrast would sometimes help him to take the edge off a disagreeable prohibition when unguardedly worded. Thus when told one day not to make much noise, he considered and rejoined, "Make *little* noise".

A more subtle perception of contrast betrayed itself towards the end of the ninth month. His father had been speaking to him of the little calf which made a big noise. He mentally turned over this astonishing bit of contrariness in the order of things, and then observed with a sage gravity, "Big calf not make little noise," which so far as the limited faculties of the observer could say appeared to mean that the contrast between size and sound did not hold all round, that the big sound emerging from the little thing was an exception to the order of nature.

In connexion with this habit of opposing qualities and statements reference may be made to the curious manner in which the boy expressed negation. It was evidently a difficulty for him to get hold of the negative particle, and to deny straight away, so to speak. At first (beginning of the year) he seemed to indicate negation or rejection merely by tone of

[1] Compare above, p. 163 f.

voice. Thus he would say about something which he evidently did not like, 'Ningi like that,' with a peculiar querulous tone which was apparently equivalent to the appendage 'N.B. ironical'. About a fortnight later he expressed negation by first making the correlative affirmation and adding 'No,' thus: "Ningi like go in water—no!" A week later, it is noted, 'no' was prefixed to the statement, as when he shouted, 'No, no, naughty Jingo,' in contradiction of somebody who had called the dog naughty. Towards the end of the third month 'not' came to be used as an alternative for 'no,' which little by little it displaced.

The father remarks that C.'s sister had had a similar trick of opposing statements, *e.g.*, "Dat E.'s cup, not mamma's cup". He then proceeds to observe in his somewhat heavy didactic manner that these facts are of curious psychological and logical interest, showing us that negation follows affirmation, and can at first only be carried out by a direct mental confronting of an affirmation, and so forth.[1]

As already shown by the reference to the use of 'somebody' C.'s thought was growing slightly more abstract. Yet how slow this advance was is illustrated in his way of dealing with time-relations, some of the most difficult, as it would seem, for the young mind to grapple with. At the end of the second month the ideas of time, we are told, were growing more exact, so far at least that he was able to distinguish a present time from both a past and a future. He called the present variously 'now,' 'a day' (to-day) or 'dis morning'.[2] The present seemed, so far as the father could judge, to be conceived of as a good slice of time. 'To-morrow' and 'by-and-by' now served to express the idea of futurity, the former referring to a nearer and more definitely conceived tract of time than the latter.

[1] On the use of antithesis in children's language and on the early forms of negation, see above, p. 174 f.

[2] A note in the diary says that C.'s sister had also used 'this morning' in a similar way for any present. Can this curious habit arise, he asks, from the circumstance that children hear 'this morning' more frequently than 'this afternoon' and 'this evening,' or that they are more wakeful and observant in the early part of the day?

That the child had no clear apprehension of our time-divisions is seen not only in his loose employment of 'dis morning,' but in his habitual confusion of the names of meals, as in calling dinner 'tea,' tea 'dinner' or 'breakfast,' and so forth.

Another abstruse idea for the child's mind is that of absence. It would seem as if this were thought of at first as a disappearance. As all mothers know, when a child is asked where somebody is he answers, 'All gone'. C., on his return from D—— (end of second month), when asked where the people and the highly interesting Jingo were, would say, 'All gone,' and sometimes add picturesquely, 'in the puff-puff'.[1]

The acquisition of clearer ideas about self and others has been touched on in connexion with the growth of the boy's language. The first use of 'I' and the contemporaneous first use of 'you' (end of third month) seem to point to a new awakening of the intelligence to the mystery of self, and of its unique position in relation to other things. There is to the father evidently something pathetic in the gradual abandonment of the self-chosen name, 'Ningi,' of the early days, and the adoption of the common-place 'I' of other people. But we need not attend to his sentimental musings on this point. The exchange, we are told, was effected gradually, as if to make it easier to his hearers. At first (beginning of year) we have 'me' brought on the scene, which, be it observed, did duty both for 'me' and for 'my'.[2] Later on followed 'I,' as an occasional substitute for 'me,' as if he were beginning to see a difference between the two, though unable to say wherein precisely it lay. Within less than a month, we are told, the

[1] (Note of the father.) C., on leaving D——, had travelled by the train. He may, therefore, have intended merely to say "removed from sight through the agency of the locomotive". From other examples, however, it would look as if the boy meant to explain all disappearance as a removal from his own local sphere.

[2] The chronicler observes here that C.'s sister had also used the same expression for 'I' and 'mine,' *viz.*, "my". It looks as if the me and its belongings were not at first differentiated. Even of the later and maturer ideas of self a well-known American psychologist writes: "Between what a man calls *me* and what he simply calls *mine* the line is difficult to draw". Compare above, p. 181.

child was beginning to use "Kikkie" as his name in place of "Ningi," which "Kikkie" was afterwards improved into "Kifford". "It was evident (writes the narrator) that in venturing on the slippery ground of 'I' and 'you' he experienced a sudden accession of manly spirit, as a result of which he began to despise the 'Ningi' of yore." But dear old 'Ningi' did not go out all at once, and we read so late as the end of the third month of his amusing his mother when standing on the window-sill of the nursery by remarking thoughtfully, "How am I, Ningi, come down?" Here, it would seem evident, the addition of 'Ningi' was intended to help the faculties of his mother in case this still puzzling "I" should prove too much for them. By the end of the fourth month we read that 'I' was growing less shy, not merely coming on the scene in familiar and safe verbal companionship, as in expressions like 'I can,' but boldly pushing its way alone or in new combinations.[1] By the sixth month (*æt.* two and a half) the name Ningi may be said to have disappeared from his vocabulary. His rejection of it was formally announced at the age of two years seven and a half months. On being asked at this date whether he was Ningi he answered, "No, my name Kiffie". He then added, "Ningi name of another little boy," very much as in a remarkable case of double personality described by M. Pierre Janet, the transformed personality looking back on the original observed, "That good woman is not myself". He looked roguish in saying this, as if there were something funny in the idea of altered personality. The determination to be conventional was shown at the same date in the fact that when, for example, the mother or father, following the old habit, would bid him go and ask the nurse to wash "Cliffie's hands," he would, in delivering the message, substitute "my hands". By the end of the year 'I' came to be habitually used for self, as in answering a question, *e.g.*, "Who did this or that?" Tyrannous custom had now completely prevailed over infantile preferences.

During the third year C. seemed determined to prove to

[1] The same holds true of 'me,' which was first used only in particular connexions, as 'Give me'.

his parents and sister that he had attained the age of reason. He began to ply these well-disposed persons with all manner of questionings. Sometimes, indeed, as when in the case already referred to he would ask for the names of things just after calling them by their names, the long-suffering mother was half inclined to regret the acquisition of speech, so much did it present itself at this stage in the light of an instrument of torture. But the child's questionings were rarely attributable to a spirit of persecution or to sheer "cussedness". He began in the usual manner of children to ask: 'Who made this and that?' (early in the fourth month). That there is a simple process of reasoning behind this question is seen in his sometimes suggesting an answer thus: "Who made papa poorly? Blackberries;" where there was obviously a reference to an unpleasant personal experience. His mind about this time seemed greatly exercised in the matter of sickness and health. One day (middle of sixth month) walking out with his mother he met a man, whereupon ensued this dialogue: C. 'Is that a poorly gentleman?' M. 'No.' C. 'Is that a well gentleman?' M. 'Yes.' C. 'Then who made him well?' From which (writes the father) it would look as if, just as Plato could only conceive of pleasure as a transition from pain, Master C. could only conceive of health as a process of convalescence.[1]

Another way of prying into the origin of things seems worth mentioning. Having found out that certain pretty things in the house had been "bought," he proceeded with the characteristic recklessness of the childish mind to assume that all nice things come to us this way. One day (middle of third month) he asked his father, "Who bought lady?" lady being an alabaster figure of Sappho. The father then asked him, and he answered: "Mamma". Asked further where, he replied: "In town". This looked like romancing, but it is hard to draw the line between childish romancing and serious thought. He may have really inferred that the alabaster lady had come to the house that way. A still funnier example of the appli-

[1] This reminds one of the childish use of 'broken' and 'mended,' illustrated above, p. 98.

cation of his purchasing idea occurred at the date, three months and one week. Stroking his mother's face he said: "Nice dear mother, who bought you?" What, asks the father, did he understand by "bought"? Perhaps only some mysterious way of obtaining possession of nice pretty things.

The other form of reason-hunting question, 'What for?' or 'Why?' came to be used about the same time as "Who made?" etc. In putting these questions he would sometimes suggest answers of a deliciously childish sort (as the writer has it). Thus one day (beginning of fourth month) he saw his father putting small numbered labels on a set of drawers, and after his customary "What dat for?" added half inquiringly, "To deep drawers nice and warm?" C. would pester his parents by asking not only why things were as they were, but why they were not different from what they were. Thus (end of third month) on seeing in a nursery book a picture of Reynard the fox waving his hat he asked in his slow emphatic way: 'Why not dat fox put on his hat?' In a similar way he would ask his mother why she did not go to school, and so forth.[1]

With this questioning there went a certain amount of confident assertion respecting the reasons of things. At first C. proceeded modestly, reproducing reasons given by an adequate authority. Thus when told during his stay at D—— that he would not go into the sea to-day, he would supplement the announcement by adding the reason as given before by his mother, *e.g.*, "'Cause it's too cold," or, "'Cause big waves to-day". Very soon, however, he took a step forward and discovered reasons for himself. One day (end of fifth month) his father was seating him at table, and was about to add a second cushion to the chair when he remarked in his gravest of manners, "I can't put my leg in, you know (*i.e.*, under the table), if me be higher". Here is another of these specimens of reasoning, dating two weeks later, and based like the first on direct observation. His father was walking out with him on the famous Heath of their suburb. The former, probably more than half lost in one of his trains of philosophic speculation,

[1] Compare above, p. 86 ff.

observed absent-mindedly, "Why are these babas (sheep) running away?" C. promptly took up the question and answered with vigour, "'Cause the bow-wow dare with man". As a matter of fact a man was approaching with a small dog, which the father in his reverie had failed to see.

Of course, the reasoning was not always so consonant with our standard as in these two examples. C. appears to have had his own ideas about the way in which things come about. For example, he seems to have argued, like certain scholastic logicians, that the effect must resemble the cause. At least, after finding out that his milk came from the cow, he referred the coldness of his milk one morning (towards end of fourth month) to the coldness of the cow,—which property of that serviceable quadruped was, of course, a pure invention of his own. Just three months later he came out one morning with the momentous announcement, "Milk comes from the white cow down at D——"; and on being asked by his ever-attentive father what sort of milk the brown cow gave, instantly replied, 'Brown milk'; where, again, it must be admitted, he came suspiciously near romancing.

He seems, further, to have shown slight respect for the logical maxim that the same effect may be brought about in more than one way. For C. nature was delightfully simple, and everything happened in one way, and in one way only. So that, for example, when during a walk (end of sixth month) his glove happened to slip off, he proceeded in a most hasty and unfair manner to set down the catastrophe to the malignity of the wind, exclaiming, "Naughty wind to blow off glove".

A like want of maturity of judgment in dealing with the subtle connexions of nature's processes showed itself in other ways. Thus he argued as if the same agency would always bring about like results, whatever the material dealt with. An amusing illustration of this occurred in the latter half of the tenth month. He was observed towards the end of a meal pouring water on sundry bits of bread on his plate, and on being asked why he was doing this, said: 'To melt them, of course'.

One of his thoroughly original ideas was that other things

besides living ones grow bigger with time. One day (middle of sixth month) he began to use a short stick as a walking-stick. His mother objected that it was not big enough, on which he observed: "Me use it for walking-stick when stick be bigger". In like manner just a month later he remarked, *apropos* of a watch-key which was too small for the father's watch, that it would be able to wind up the watch 'when it grow bigger'. So far as the father could observe it was only little things which he thought would increase in size. It thus looked, adds the father, like a kind of extension of the supreme law of his own small person to the whole realm of wee and despised objects.[1]

C. followed other children and the race which he so well represented in supposing that sensation is not confined to the animal world. Thus towards the end of the eleventh month when warned in the garden not to touch a bee as it might sting, he at once observed: "It might sting the flower". "It is odd," interpolates the father here, "that C.'s sister, when, towards the end of her fourth year, she was bidden not to touch a wasp on the window-pane, had gone further than C. by suggesting that it might sting the glass. Everything seems to live and to feel in the child's first fancy-created world."[2]

Towards the end of the year, it appears, C. developed considerable smartness in logical fencings with his mother and others, warding off unpleasant prohibitions by a specious display of argument. For example, when told that something he wanted would make him poorly, he rejoined: 'I *am* poorly,' evidently thinking that he had convicted his estimable parent of what logicians call irrelevant conclusion.

One cannot say that these first incursions into the domain of logic do Master C. particular credit. Perhaps we may see later on that he came to use his rational faculty with more skill and precision, and to turn it to nobler uses than the invention of subterfuges whereby he might get his wilful way.

The notes on the development of the feelings continue to be rather scanty. I will reproduce one or two of the more noteworthy.

[1] Compare above, p. 97 f. [2] Compare above, p. 96 ff.

The visit to D—— was attended with a great change in his feeling for animals. He no longer feared them. Jingo, spite of his warlike name, was an amiable creature, and seems to have reconciled him to the canine species. Cats, too, now came in for special affection. He would watch the animals in D——, horses, cows, and especially ducks, with quiet delight for many minutes, imitating their sounds. Strange to say, now that fear had gone he showed himself disposed to take liberties with animals. Thus he would slap Jingo and even his favourite cat in moments of displeasure, just as he and his sister before him used to slap their dolls.

A new emotion showed itself towards the end of the fourth month, *viz.*, shyness. If his parents unguardedly spoke about him at table he would hang down his head and put his hands over his face. So far as the father could observe this expression of shyness was unlearned. His sister, it appears, had not been remarkable for the feeling. The father observes that the fact of this new feeling synchronising with the acquisition of the use of 'I,' 'my,' etc., seems to show that it was connected with the growth of self-consciousness.

His sense of fun continued to develop, though it still had a decidedly rude and primitive character. When just four months on in the year his father amused him by battering in an old hat of his own. He broke into loud laughter at this performance. We know, writes the observer, how the sight of a hat in trouble convulses the grown mind. Can it be that C. was already forming associations of dignity with this completion and crown of human apparel?

Tender emotion, as became a boy, perhaps, was in abeyance. He rarely indulged in manifestations of love, or if he did, it must have been towards his mother secretly in a confidence that was never violated. Here is one of the few instances recorded (beginning of eighth month). He happened to see his own picture in his mother's eye and said in a highly sentimental tone: "Dear pitty little picture, I do love 'oo," and then proceeded to kiss his mother's eyelid. It was little things, as kittens, flowers, and so forth, which seemed to move him to this occasional melting mood.

The sympathetic feelings though still weak may be said to be slowly developing. Thus in the first month of the year it is remarked that he now thinks of his sister when absent, so that if he has the highly-prized enjoyment of a biscuit he will suggest that 'Tit have bisc too'.

This year witnessed the formation of more definite æsthetic likings in the matter of colours and forms. His dislike for a black cat and black things generally, may perhaps be called in a way a preference of taste. In his animal picture-books, of which he was now growing very fond, he showed a marked dislike for a monkey with an open mouth, also for the rhinoceros, and strong likings, on the other hand, for birds in general, also for horses and zebras.

He began to learn nursery rhymes, and showed a good ear for rhyme. Thus in saying:—

> Goosey goosey gander,
> Where shall I wander?

he was observed (end of tenth month) to correct the rhyme by first pronouncing the *a* in "wander" less broadly than is our wont, just as in "gander," and then substituting the conventional pronunciation.

The moral side of the child's nature appears during this year to have undergone noticeable changes. The most striking fact which comes out in the picture of the boy as painted in the present chapter is the sudden emergence of self-will. He began now to show himself a veritable rebel against parental authority. Thus we read (about the end of the sixth week) that when corrected for slapping Jingo, or other fault, he would remain silent and half laugh in a cold contemptuous way, which must have been shocking to his worthy parents. A month later we hear of an alarming increase of self-will. He would now strike each of these august persons, and follow up the sacrilege with a profane laugh. As might be expected from his general use of subterfuge about this time, he showed a lamentable want of moral sensibility in trying to shirk responsibility. Thus (middle of seventh month) he was noticed by his mother putting a spill of paper over the fire-guard into the fire so as to

light it. His mother at once said: "Ningi mustn't do that". Whereupon he impudently retorted: "Ningi not doing that, paper doing it".[1]

All this is dreadful enough, yet it is probable that many children go through a longer or shorter stage of rebellion, who afterwards turn out to be well-behaved, respectable persons. And, as his father is not slow to point out, C., even in these rebellious outbursts, showed the rudiments of moral feeling in the shape of a deep sensitiveness to injury and more definitely to unjust treatment. Thus we are told (middle of seventh month) that when his sister eats the leavings of his pudding or other dainty he shows a well-marked moral indignation. He gets very excited at such moments, his eyes dilating, his voice rising in pitch, and his arms executing a good deal of violent gesticulation. When scolded by his mother for doing a thing which he has only appeared to do, he will turn and exclaim, with all the signs of righteous wrath, "Mamma naughty say dat!" One day (end of seventh month) when, after being very naughty, his mother had to carry him upstairs, he broke out into a more than usually violent fit of crying. His mother asked him what he meant by making such a noise when being carried upstairs; whereupon he replied, "'Cause you carry me up like a pig" (as represented in one of his picture-books).

There is nothing particularly meritorious in all this, yet it is significant as showing how, in this third year, the consciousness of self was developing not only on its intellectual but on its moral side, as a sense of personal dignity and rightful claim, which, after all, is a very essential element in a normal and robust moral sentiment.

Fourth Year.

The reports of progress during the fourth year are still scantier than their predecessors: perhaps the observer was getting tired of his half-playful work. Nevertheless, there are some interesting observations in this chapter also.

C.'s observation seems to have been decidedly good, to

[1] Compare above, p. 273 f.

judge by an incident that occurred at the end of the third week of the year. He had been to the Zoological Gardens. His father asked him about the seals, and more particularly as to whether they had legs. He answered at once, "No, papa, they had foot-wings". The chronicler is evidently proud of this feat, and thinks it would have satisfied Professor Huxley himself. But allowance must here as elsewhere be made for parental pride.

The child's colour-sense, we are told about the same time, was developing quite satisfactorily. He could now (end of fifth week) discriminate and name intermediate shades of colour. Thus he called a colour between yellow and green quite correctly 'yellowish green,' and this way of naming colours was, so far as the father could ascertain, quite spontaneous. Later (three and a half months), on being questioned as to violet, which he first said was blue, he replied correcting his first answer, "and purple". Later on (beginning of last quarter), he could distinguish a 'purplish blue' from a "purplish pink".

Along with a finer observation we find a more active and inventive imagination. It was during this year that he began to create fictitious persons and animals, and to surround himself with a world, unseen by others, but terribly real to himself.

About the middle of the third month he made his first essay in story-fabrication. Considering that he had a lively and imaginative elder sister, who was constantly regaling him with fairy and other stories, this argues no particular precocity. His first style in fiction was crude enough. He would pile up epithets in a way that makes the most florid of journalistic diction seem tame by comparison. Thus he would begin the description of a dog by laying on a miscellaneous pile of colour-adjectives, blue, red, green, black, white, and so forth. With a similar disregard for verisimilitude and concentration of aim on strong effect, he would pile up the agony in a story, relating, for example, how the dog that had killed a rabbit ("bunny") had his head beaten off, was then drowned, and so on, through a whole Iliad of canine calamity. Here is another example of

his literary sensationalism (middle of ninth month). While he and his father were taking a walk in the country, where the family was staying, they found the feathers and bones of a bird in a tiny cleft in the tree. The father thereupon began to weave for him a little story about the unfortunate bird, how it had taken shelter there one cold winter's day weary and hungry, and had grown too weak to get away. This did not satisfy the strong palate of our young poet, who proceeded to improve on the tragedy. "P'haps a snake there, p'haps dicky bird flew there one cold winter day and snake ate it up, and then spit it out again," and so forth. "P'haps (he ended up) he (the bird) thought there was nothing but wind (air) there."

He had, of course, his super-sensible world, made up of mysterious beings of fairy-like nature, who, like the spirits of primitive folk-lore, were turned to account in various ways. The following incident (seven months one week) may illustrate the *modus operandi* of the child's myth-making impulse. He was eagerly looking forward to going to a circus. His father told him that if it rained he would not be able to go, for nobody could drive away the rain. Whereupon he instantly remarked: "The Rainer can". His father asked him who this wonderful person was, and he replied: "A man who lives in the forest—*my* forest—and has to drive rain away". The expression "drive away" used by the father had been enough to give this curious turn to his fancy.

His fairy-world was concocted from a medley of materials drawn from his observations of animals, his experiences at the circus, including the ladies in beautifully tinted short dresses, whom, with childish awe, he named 'fairies,' and the book-lore that his sister was imparting to him from *Stories of Uncle Remus*, and other favourites. In the ninth month he got into the way of talking of his fairy-world, of the invisible fairies, horses, rabbits, and so forth, to which he gave a local habitation in the wall of his bedroom. When in a difficulty he thinks his fairies can help him out. Nothing is too wonderful for their powers: they can even solace his pitiful heart by making a dead dog alive again. For the rest, like other imaginative children, he peoples the places he knows, especially dark and

mysterious ones, with imaginary beings. Thus one day, on walking in a wood with his mother, he was overheard by her talking to himself dreamily in this wise: "Here there used to be wolves, but long, long time ago".

It is noticeable that at this same period of his myth-making activity he began to speak of his dreams. He evidently takes these dream-pictures for sensible realities, and when relating a dream insists that he has actually seen the circus-horses and fairies which appear to him when asleep. Possibly, writes the father, this dreaming, as in the case of the primitive race, had much to do in developing his intense belief in a supernatural world. It may be added that during this same period he was in the habit of seeing the forms of his animals, as lions, "gee-gees," in such irregular and apparently unsuggestive groupings of line as those made by the cracks in the ceiling of his nursery.[1]

There is little to note in the way of verbal invention. Here is one amusing specimen (third week of third month). His father asked him whether his toy-horse was tired, whereupon he answered: 'No, I make him untired'. This leads off the writer to an abstruse logical discussion of "negative terms," and how it comes about that we do not all of us talk in C.'s fashion and say 'untired,' 'unfatigued'. Another quaint invention was the use of 'think' as a noun. It was funny, writes the father, to hear him rejecting his sister's statements by the contemptuous formula: "That's only your thinks".

His understanding was slowly ripening in spite of his free indulgence in the intoxicating pleasures of the imagination. He could understand much that was said to him by the aid of a liberal application of metaphor. Thus one day (end of the year) his father when walking with him late in the evening in a park where sheep were grazing told him that animals did not want bed-clothes, but could lie on the grass wet with dew and afterwards be dried with the sun. He said: "Yes, the sun is their towel to make them dry".

The subtleties of time were still too much for him. In the fourth month of the year when his sister was narrating an

[1] Compare above, p. 28 ff.

incident of the evening before and used the term 'yesterday,' he corrected her saying: "No, E., last night". Yet he was now beginning to penetrate into the mysteries of the subject. His father happened one day (end of seventh month) to speak of to-morrow. C. then asked: "When is to-morrow? To-morrow morning?" He then noticed that his hearers were remarking on his question, and proceeded to expound his own view of these wonderful things. "There are two kinds of to-morrow, to-morrow morning and this morning;" and then added with the sagest of looks: "To-morrow morning is to-morrow *now*".

At this the father tells us both he and the mother were sorely puzzled, and if one may be allowed to read between the lines, it is not improbable that the latter must have indulged in some such exclamation as this: "There! this comes of your stimulating the child's brains too much". However this be, it is certain that the observer's mind was greatly exercised about this dark and oracular deliverance of the child. What could he have meant? At length he bethought him that the child was unable as yet to think of pure abstract time. To-morrow had to be filled in with some concrete experience, wherefore his wishing to define it as "to-morrow *morning*" with the interesting experiences of the early hours of the day. And if "to-morrow" means for his mind to-morrow's *experience*, he is quite logical in saying that it becomes to-day's experience. Whether the father has here caught the subtle thread of childish thought may be doubted.[1] Who among the wisest of men could be sure of seizing the precise point which the child makes such praiseworthy effort to render intelligible to us?

It would appear as if C. were still rather muddled about numbers. One day (end of third month) he was looking at some big coloured beads on a necklace, and touching the biggest he said to his mother: "These are six," then some smaller ones: "these five," then some still smaller ones: "these four," and so on. He was apparently failing as yet to distinguish number from that other mode of quantity which we call magnitude.

[1] Compare what was said above, p. 119.

The use of the word "self" at this time showed that it had reference mainly to the body, and apparently to the central trunk. Thus one evening towards the end of the eleventh month, after being put to bed, he was heard by his mother crying out peevishly. Asked by her what was the matter he answered, "I can't get my hands out of the way of myself"; which, being interpreted by his mother, was his way of saying that he could not wriggle about and get into cool places (the evening was a warm one) as he would like to do.

As might be inferred from his essays in fictitious narrative, he was getting quite an expert in the matter of assertion. It was odd sometimes, observes the journal, to hear the guarded manner in which he would proffer a statement. Thus, on one occasion (beginning of twelfth month), he reported to his father, who had been from home for some days, that he had been behaving quite satisfactorily during his absence, and then added cautiously, "I did not see mamma punish me, anyhow".

During this year he followed up his questioning relentlessly, often demanding the reasons of things, as children are wont to do, in a sorely perplexing fashion. His interrogatory embraced all manner of objects, both of sense-perception and of thought. Thus he once asked his mother (seventh month) how it was that he could put his hand through water and not through the soap. A matter that came to puzzle him especially just now was growth. Thus, when told by his father (tenth month) that a little tree would grow big by-and-by, he asked, ,, How is it that everything grows—flowers, trees, horses, and people?" or, as he worded it a few days later, "How can trees and sheep grow without anybody making them?" He seems now (notes the father) to have given up his belief in the growth of lifeless things. The inequalities of size among fully grown things were also a puzzle to him. Thus, when just four years old, he was much concerned to know why ponies did not grow big like other horses.[1]

The father must doubtless at this time have had his hands full in satisfying the intellectual cravings of the child. But,

[1] Compare what was said above, pp. 88, 104.

happily, the small inquirer would sometimes come forward to help out the explanation. One day (end of the year) his father, when walking out with him, pointed to a big dray-horse and said: "That is a strong horse". On which the child observed: "Ah! that horse can gallop fast". He was then told that heavy horses did not go fast. He looked puzzled for a moment and then asked: "Do you mean can't lift themselves up?" "Had he," asks the father, "noticed that when weighted with thick clothes or other *impedimenta* he was less springy, and so found his way, as is the manner of children, from his own experience to explaining the apparent contradiction of the strong and slow horse?"

Other questionings were less amenable to purposes of instruction. He would often get particularly thoughtful immediately after going to bed, and put posers to his mother. For example, one evening (tenth month) he asked in his slow, earnest way, "Where was I a hundred years ago?" and then more precisely, "Where was I before I was 'orn?" These are, as everybody knows, stock questions of childhood, and, perhaps, are hardly worth recording. It is otherwise with a curious poser which he set his father about the middle of the last month: "When are all the days going to end, papa?" It is a pity that the diary does not record the answer given to the question. In lieu of this we have the customary pedantic style of speculation about the "concept" of infinity with references to Sir W. Hamilton and I don't know what other profound metaphysicians. The answer, if any was attempted, does not appear to have been very satisfactory to Master C., for we read further on that more than three months after this date he put the same question about all the days ending to his mother.

With this questioning about the causes of things there went much assigning of reasons. By the end of the fourth month, it is remarked, he was getting more accurate in his thinking, substituting limited generalisations such as, "Some people do this," for the first hasty and sweeping ones. He appears, further, to have grown much more ready in finding reasons, bringing out "'cause" (because) on all manner of occasions,

much to his own satisfaction and hardly less to that of his observant father. He continued, it is added, to display the greatest ingenuity in finding reasons for his own often capricious-looking behaviour, and especially in discovering excuses whereby a veil of propriety might be thrown over actions which he knew full well would, if left naked, have a naughty look.

The tendency to give life to things observable in the last year was less marked, but broke out now and again, as when sitting one day (beginning of tenth month) on his chair on a loose cushion and wriggling about as his manner was, he felt the cushion slipping from under him and exclaimed: "Hullo! I do b'lieve this cushion is alive. It moves itself." About a month after this the father set about testing the state of his mind by asking him whether trees did not feel pain when they were cut. This "leading question" was not to entrap Master C., who answered with something of contempt in his tone: "No, they only made of wood". He was not so sure about dead rabbits, however, saying first "yes" and then "no".

The intricate relations of things continued to trouble his mind. His father chanced one day (end of eleventh month) to remark at table that C. did not take his milk so nicely as he used to do. C. pondered this awhile and then said: "It's funny that little babies behave better than big boys. They don't know so much as boys." From which the father appears to have inferred that children, like certain Greek philosophers, are wont to identify virtue with cognition.

There are not many brilliant strokes of childish rationality to record during this year. It is worth noting, perhaps, that when just seven months and one week of the year had passed, he showed that he had found his own way to an axiomatic truth familiar to students of geometry. He had been to the circus the day before, where a gorgeous pantomimic spectacle had greatly delighted him He talked to his father of the beautiful things, and among others, of "the fairies going up in the air". His father asked him how they were able to fly. Whereupon with that good-natured readiness to enlighten the darkness of grown-up people which makes the child the most charming of instructors, he proceeded to explain in this wise:

"They had wings, you know. Angels have wings like birds, and fairies are like angels, and so you see fairies are like birds."

The first development of reason in the child is apt to be trying to parents and others, on account not only of the thick hail-like pelting of questions to which it gives rise, but still more, perhaps, of the circumstance that the young reasoner will so readily turn his new instrument to a confusing criticism of his elders. The daring interference of childish dialectic with moral discipline in C.'s case has already been touched on. Sometimes he would follow up a series of questions so as to put his logical antagonist into a corner, very much after the manner of the astute Socrates. Here is an example of this highly inconvenient mode of dialectical attack (middle of seventh month). He was at this time like other children, much troubled about the killing of animals for food. Again and again he would ask with something of fierce impatience in his voice: "*Why* do people kill them?" On one occasion he had plied his mother with these questionings. He then contended that people who eat meat must like animals to be killed. Finally, to clench the matter, he turned on his mother and asked: "Do *you* like them to be killed?" Here is another example of his persistent dialectical attack (end of eleventh month). A small caterpillar happening to drop on the shoulder of the father, the mother expressed the common dislike for these creatures. C. was just now championing the whole dumb creation against hard-hearted man, and he at once saw his opportunity. 'Why,' he demanded in his peremptory catechising tone, 'don't you like caterpillars?' To which the mother, amused perhaps with his grave argumentative manner, thought to escape the attack by answering playfully: "Because they make the butterflies". But there was no room for jocosity in C.'s mind when it was a matter of liking or disliking a living creature. So he followed up his questioning with the true Socratic irony, asking: "Why don't you like butterflies?" On this both the parents appear to have laughed; but he was not to be upset, and ignoring the patent subterfuge of the butterfly returned to the caterpillar. "Caterpillars," he ob-

served thoughtfully, "don't make a noise." He had doubtless generalised that the pet aversions of his parents, more especially his father, were dogs, cocks and other noise-producing animals. Whether he returned to the subject of the caterpillar is not stated. Perhaps his mother's dislike for the wee soft noiseless thing was to be added to the stock of unexplained childish mysteries.

Passing to manifestations of feeling, we have a curious note on a new emotional expression. It seems that when a suckling the child had got into the way of accompanying the bliss of an ambrosial meal by soft caressing movements of the fore-finger along the mother's eyebrows. When three years and ten months old he was sitting on his father's lap in one of his softer moods when he touched this parent's eyebrows in the same dainty caressing manner. The observer suspects that we have here an example of a movement becoming an emotional sign by association and analogy. At first associated with the *ne plus ultra* of infantile happiness it came to indicate the oncoming of any analogous state of feeling, and especially of the luxurious mood of tenderness.

Two or three curious examples of fear are recorded in this chapter. In the second week of the fourth month he went with his mother to the photographer's to have his likeness taken. When he reached the house he strongly objected, clung to his mother and showed all the signs of a true fear. On entering the room he told the photographer in his quiet authoritative manner that he was not going to have his likeness taken. The process, an instantaneous one, was accomplished, however, without his knowing it. Next morning when asked by his sister how he liked having his likeness taken, he answered snappishly: "Haven't had my likeness taken. Don't you see I can talk?" The father suspects that the child feared he would be transformed by the black art of the camera into a speechless photograph. It is curious that savages appear to show a similar dread of the photographic camera. Thus, in a recent number of the *Graphic* (November, 1893) there was a drawing of Europeans and natives having their likeness taken in a camp in South Africa. One native, terror-struck, is hiding behind a

tree so as not to be taken. The text explains that the drawing represents a real incident, and that the fear of the native came from his belief that there is an evil spirit in the camera, and adds that, on finding out that after all he was in the group, the poor fellow instantly disappeared from the camp. Is there not for all of us something uncanny in that black box turned towards us bent on snatching from us the film or image of our very self?

The other instances of C.'s fear point to a like superstitious frame of mind at this time. Thus in the last month he happened one day to see some white linen swaying in the breeze on a hill not far off. He took it for a light and was afraid, saying it was a wolf. This was, we are told, his first experience of ghosts. At the same date he showed fear when passing through a wood with his father about nine o'clock on a summer evening. Though his father was carrying him he said he could not help being afraid of the dark. He fancied there must be wolves in the dark. He afterwards informed his father that his sister had told him so. The wolf appears at this time (by a quaint confusion of zoology) to have been the descendant of his old *bête noire*, the "bow-wow". "Have we," writes the father, "a sort of parallel here to the superstition of the were-wolf so familiar in folk-lore?"

A new development of angry outburst is recorded. In the third month, to the horror of his parents and the disgust of his sister, he positively took to biting others, an action, it is needless to say, which he could not have picked up from his highly respectable human environment. Was this, asks the father, with praiseworthy detachment of mind, an instinct, a survival of primitive brute-like habit, and happily destined in the case of a child born into a civilised society, like other instincts, as pilfering, to be rudimentary and transient?

As implied in the account of his much questioning, the feeling which was most strongly marked and dominant during this year was wonder. His father would surprise him sometimes standing on the sofa and looking at an engraving of Guido's "Aurora" hanging on the wall above. The woman's figure in front, perfectly buoyant on the air, the horses and

chariot firmly planted on the cloud, all this fascinated his attention and filled him with delightful astonishment.

With wonder there often went in these days sore perplexity of spirit. The order of things was not only intricate and difficult to take apart, it seemed positively wrong. That animals should be beaten, slaughtered, eaten by his own kith and kin, this, as already hinted, filled him with dismay. In odd contrast to this, he would protest with equal warmth against any ordinance which affected his own comfort. Thus, having on one occasion (middle of seventh month) taken a lively interest in the manufacture of jellies, custards, and other dainties, and having learned the next day that they had been disposed of by a company of guests, he asked his mother querulously why she had "wisitors," and then added in a comical tone of self-compassion, "Didn't the 'wisitors' know you had a little boy?" "It is odd to note," writes the father, "how a humane concern for the lower creation coexisted with utter indifference to the duties of hospitality. Perhaps, however," he adds, succumbing to paternal weakness, and saying the best he can for his boy, "there was no real contradiction here. The compassionateness of childhood goes forth to weak, defenceless things, and to C.'s mind the 'wisitors' may very likely have appeared as over-fed, greedy monsters who robbed poor children of their small perquisites."

The wondering impulse of the child assumed now and again a quasi-religious form in speculations about death and heaven. Early in the year he had lost his grandpapa by sudden death, and the event set his thoughts in this direction. In the ninth month his mother read him Wordsworth's well-known story, "Lucy Gray". He was much saddened by the account of Lucy's death. On hearing the line "In heaven we all shall meet," he began questioning his mother about heaven. She gave him the popular description of heaven, but apparently in a way that left him uncertain as to whether she believed what she said. Whereupon he exclaimed: 'We *shall* meet,' and then after a moment's pause, as though not quite certain, added, 'shan't we?' Five weeks later, when driving in the country with his mother on a lovely May day, he was

in his happiest mood, looking at the flowers in the fields and hedgerows, and suddenly exclaimed: "I shall never die!" The question of immortality (observes the father) had thus early begun to wring the child's soul.

There are, I regret to say, in this chapter, hardly any remarks about the development of the child's will and moral character. The father appears to have been disproportionately interested in the boy's intellectual advancement. The reader is left to hope that Master C. was growing a more orderly and law-abiding child than the incident of the biting would suggest. The one remark which can be brought under this head refers to the growth of practical intelligence in applying rules to action. C. had been told it was well to keep nice things to the end, and he proceeded to work out the consequences of the rule in an amusing fashion. Thus we read (end of eleventh month) that he would take all the currants out of his cake and stick them round the corner of his plate so as to eat them last. A still more amusing instance of the same thing occurred about the same date. On putting him to bed one evening his mother noticed that he carefully sought out the middle of the bed, saying to himself, "I'll keep these last". Questioned by her as to what he meant by 'these,' he explained, "These nice cool places at the edge of the bed". "Children," remarks the chronicler, "do not drop their originality even when they make a show of following our lead. Obedience would be far more tedious than it is but for the occasional opportunities of a play of inventive fancy in the application of a rule to new and out-of-the-way cases."

Fifth Year.

With the fifth year we enter upon a new phase of the diary. The father appears now to have finally abandoned the transparent pretence of a methodical record of progress, and he limits himself to a fuller account of a few selected incidents. Very noticeable is the introduction of something like prolonged dialogue between the child and one of his parents.

The boy continued to take a lively interest in objects and to note them with care. Here is an illustration of his atten-

tion to natural phenomena. He was walking out (end of fifth month) with his father on their favourite Heath towards sunset, when he asked: "What are these pretty things I see after looking at the sun? When I move my eyes they begin to move about." The father said he might call them fairy suns. He then wanted to know whether they were real. He said: "When they seem to be on the path they disappear when I go up to them". Later on he began to romance about the spectral discs that he saw after looking at a red sun, calling them fire balloons and saying that there was a fairy in each one of them.[1]

A quaint example of his attention to the form of objects, as well as of his odd childish mode of thought, comes out in a talk with his mother (end of seventh month). She had been reading to him from *Alice in Wonderland*, where the caterpillar tells Alice that one side of a mushroom would make her grow taller, and one side shorter, which set Alice wondering what the side of a mushroom could be. C. could not sympathise with Alice's perplexity, and said to his mother: "Why, a mushroom is all ends and sides. Wherever you stand it's an end or a side." The father thinks he sees here a dim apprehension of the idea that a circle is formed by an infinite number of straight lines, but he is possibly reading too much into the boy's thought.

His observation of colour continued. One day (end of seventh month) he was overheard by his father saying to himself (without any suggestion from another) that a particular colour "came next" to another. His father thereupon questioned him and elicited that orange came next to red. Asked 'What else?' he answered yellow. Dark brown came next to black, a lighter brown to red, purple next to blue, pink to red, and so forth. Asked what green came next to, he answered: "I don't know"; from which it would appear that he had pretty clearly observed the affinities of colours.

He showed himself observant of people's ways too. Here is a funny example of his attention to his sister's habits of speech. One evening (end of sixth month) when his sister was out at a party he had a cracker which he wished to give her

[1] Compare above, p. 102 f.

"as a surprise". So he told his mother to put it under the table, and added: "When E. comes in, and after she says, 'Well! how've you been getting on?' then you must say: 'Look under the table'".

His memory, as the foregoing incident may show, was growing tenacious and exact. This exactitude showed itself in almost a pedantic fashion with respect to words. Here is a funny example (end of sixth month). He had a new story-book, *The Princess Nobody*, illustrated by R. Doyle. His mother had read it to him about four or five times during the three weeks he had possessed it. One Sunday evening his father read it to him as a treat. In one place the story runs: "One day when the king had been counting out his money all day," which the father carelessly read as "counting out all his money". The child at once pulled up and corrected his sire, saying, "No, papa, 'tis 'counting out all the day his money'". He had remembered the ideas and the words though not the precise order. The jealous regard of the child for the text of his sacred books in the face of would-be mutilators is one of those traits which, while perfectly childish, have a quaint old-fashioned look.

The dreamy worship of fairies passed into a new and even more blissful phase this year. Before the close of the third month C. was actually brought into contact with one of these dainty white-clad beings. The memorable occasion was a girl's costume ball, to which he was taken as a spectator. Among the younger girls present was one dressed as a fairy, in short white gauze, golden crown, and the rest. C. was at first dazed by the magnificence of the assembly and shrank back shyly to his mother's side; but after this white sylph had been pointed out to him as a fairy, and when she came up to him and spoke to him, he was transported with delight. Hitherto the fairy had never been nearer to him than on a circus stage: now he had one close to him and actually talked with her! He firmly believed in the supernatural character of this small person, and on his return home proceeded to tell cook with radiant face how he had seen a live fairy and spoken to her. He added that his sister had never spoken to one.

This last might easily look like a touch of malicious 'crowing': yet the father appears to think that the boy meant only to deepen the mystery of the revelation by pointing out that it was without precedent.

The weaving of fairy legend now went on vigorously. Sometimes when out on a walk and observing a scene he would suddenly drop into his dream-mood and spin a pretty romance. This happened one Sunday in winter (beginning of seventh month), as he stood and watched the skaters on a pond. He said his fairies could skate, and he talked more particularly of his favourite Pinkbill, whom, he said, he now saw skating, though nobody else was privileged to see her, and who loved to skate at night on tiny pools which were quite big for her. "Delightful days (writes the father, who is rather apt to gush in these later chapters), when one holds a wondrous world of beauty in one's own breast, safe from all prying eyes, to be whispered of perhaps to one's dearest, but never to be shown."

The full enjoyment of this supernal world was during sleep. C. often spoke of his lovely dreams. One morning (middle of fourth month) when still in bed, he engaged his mother in the following talk: C. "Do you have beautiful dreams, mamma?" Mother. "No, dear, I don't dream much." C. "Oh, if you want to dream you must hide your head in the pillow and shut your eyes tight." Mother. "Is dreaming as good as hearing stories?" C. "Oh, yes, I should think so. One gets to know about all sorts of things one didn't know anything about before." Dreams (writes the father) came to him like his fire-balloons by shutting his eyes tight, and perhaps his story-books were the real suns of which his dreams were the 'after-images'.

As the use of the grown-up and high-bred vocable "one" —the first instance observed, by-the-bye,—suggests, C. was making rapid strides in the use of language. By the middle of the year, we are told, he could articulate all sounds including the initial *y* and *th* when he tried to do so. He gave to the *a* sound an unusual degree of broadness, a fact which lent to his speech a comical air of learned superiority. This was of course

especially the case when, as still happened, he would slip into such solecisms as 'I were' and 'Weren't I?' He would still use some quaint original expressions. It may interest the philologist to know that he quite spontaneously got into the way of using 'spend' for 'cost,' as in asking one day (beginning of third month), on seeing a frill in a shop window: 'How much does this frill spend?' and also of making 'learn' do duty for 'teach,' as when (end of tenth month) he asked his mother, pointing to a globe: "When are you going to learn me that ball?"

He continued quite seriously and with no thought of producing an effect to frame new words more or less after the analogy of those in use. Thus one day (middle of third month) he surprised his parents by bringing out the verb 'fireworking' in reference to the coming festivities of the fifth of November. Sometimes, too, he would amuse them by trotting out some 'grown-up' phrase which he generally used with clear insight, though now and again he would miss the precise shade of meaning. Thus it happened (about middle of fifth month) that he had been taking tea at the house of some girl friends, and on his return his mother questioned him about his doings, and in particular what his host had said to him. C. pondered for a moment and then said: "Oh! nothing surprising.".

This progress in the use of language indicated a higher power of mental abstraction. This was seen among other ways in the attainment of much clearer ideas about number. In the second month of the year he was able, we are told, to define the relations of the simpler numbers, saying that four was one less than five, and so on. That he had his own way of counting is evident from the following story, which dates from the middle of the same month. When walking with his mother on the Heath he found four crab apples. He observed to her: "How nice it would be, mamma, if I could find two more!" His mother replied: "Yes. How many would you have then, C.?" To this C. responded in his grave business-like tone: "Wait a minute," then got down on his knees, put the four apples in a row, and then proceeded to the mysterious ceremony of counting. He began by saying 'one, two' to

himself, then on reaching the "three" he pointed to the first of the row, using the apples to help him in adding the four last digits. He appears, says the father, to have imagined or 'visualised' the first two units, and then used the visible objects for the rest of the operation—not a bad way, one would say, of turning the apples to this simple arithmetical use.

That he visualised distinctly when counting is illustrated by another incident dating three weeks later. His mother, as was her wont, was seeing him into bed. Before climbing on to the bed he put on the coverlid a number of small toy treasures. When tucked up he opened up the following dialogue. C. "Put my toys in the drawer, mamma." M. "I have done it, dear." C. "How many were there?" M. 'Three.' C. "Oh no, there were four." M. "Are you sure, dear? What were they?" C., after sitting up and pointing successively to imaginary objects on the coverlid: "One, two, three, four,—two dollies, a tin soldier, and a shell".

His interest in physical phenomena continued to manifest itself in questionings. He would spring his problems in physics on his patient parents at the most unexpected moments. For instance, when sitting at table one day (end of first month) he observed quite suddenly, and in no discoverable connexion with what had been happening before: "There's one thing I *can't* imagine. How *is* it, papa, that when we put our hand into the water we don't make a hole in it?" It would be curious to know how the father dealt with this hydrostatic problem.

The other inquiries recorded about this time have, oddly enough, to do with water. It looks as if water were dividing with number just now the activity of his brain. Thus he asked one day when staying at the sea-side (middle of second month): "How does all the water come into the world?" His mind was also greatly exercised about the hydrostatic puzzle of things sinking and swimming (floating).

There are hardly any examples of a reasoning process this year. One of these, however, is perhaps characteristic enough to deserve reproduction. One day (middle of fourth month) when

his mind was running on the great problems of counting, his sister happened to speak about a large number of chestnuts (over 200). This excited C.'s imagination, and he exclaimed: "Why, even Goliath couldn't count them". The idea that mere bulk should measure intellectual capacity was delicious, and C.'s remark was no doubt received with a peal of laughter to which the bewildered little inquirer into the mysteries of things must by this time have been getting hardened. And yet, writes the apologetic father, C.'s reasoning was not so utterly silly as it looks, for in his daily measurement of his own faculties with those of others what had impressed him most deeply was that knowledge is the prerogative of big folk.

With respect to C.'s emotional development during this year, I am pleased to be able to record a diminution in the outbursts of angry passion. There seems to have been no more biting, and altogether he was growing less homicidal and more human. It is only to be expected that the father should set down these paroxysms of rage to temporary physical conditions.

Among feelings which were still strong and frequently manifested was fear. He had no fear of the dark, and did not in the least mind being left alone when put to bed. But he was weakly timid in relation to other things, *e.g.*, the tepid morning bath, from which he shrank as from a horror. His bravery was as yet an infinitesimal quantity, as we may see from the following anecdote. His mother was one day (end of fourth month) talking to him about the self-denying bravery of captains of ships when shipwrecked. She asked him whether he would not like to be brave too, adding for his encouragement that many timid little boys like him had grown up to be brave men. Upon this I regret to say that C. asked sceptically, "Do they?" and then added, with a little impatient wriggle of his body, "I am going to be a painter, and painters don't need to be brave". The mother pursued the subject saying: "But if when you are big we all go to sea and get shipwrecked, wouldn't you wish mamma and E. to get into the boat before you?" C. managed to parry even this home-drive, answering: "Oh, yes, but I should get in the very minute after you".

A noticeable change occurred during this period in what the Germans call "self-feeling". A consciousness of growing power gave a certain feeling of dignity and even of superiority which often betrayed itself in his words and actions. Although, so far as I can gather, a pretty boy, and a good deal admired for his golden hair, he does not seem to have set much store by his good looks. One day (towards end of sixth month) a grown-up cousin remarked at table that he had had his hair cut: whereupon ensued this talk. Mother (to cousin). "It looks better now that it is cut." C. "Oh, no, it was prettier before." Cousin. "Oh, you think you've got pretty hair." C. (unhesitatingly). "Oh, yes." Cousin. "Who told you your hair was pretty?" C. "Mamma." "All this," writes the father, "was said very quietly, and without the least appearance of vanity. He might have been talking about the hair of another person, or of a head in one of his pictures. His interest here seemed to be much more in correcting his mother and bringing her into consistency with former statements than in laying claim to prettiness."

On the other hand, the child does certainly appear to have plumed himself a good deal on his intellectual possessions. It is to be noted that about this time he grew unpleasantly assertive and controversial. He would even sometimes stick to his own view of things when contradicted by his parents. He prided himself more particularly on being "sensible," as he called it. His eagerness to be thought so may be illustrated by the following incident. He and his mother had been reading a story in which a little girl speaks of her mother as the best mother in the world. Whereupon in a weak moment his mother asked him, "Do you think your mother the best in the world, dear?" To this C. replied, "Well, I think you are good, but not *the best in the world*. That would not be sensible, would it, mamma?" We are not told how this Cordelia-like moderation was received.

To many people, mothers especially, there might well seem to be a touch of the prig in this exact weighing of words when it was a question only of the exaggeration of love. I regret to say that about this same time a tendency to priggishness

did certainly show itself in a critical air of superiority towards girls of his own age. When about four years eight months he was sent to stay for a few days at the house of a lady friend where there was a girl about his own age, who seems to have been a lively mischievous young person, delighting in 'drawing' her grave boy comrade. On his return home he entertained his mother by expressing his feeling respecting his new companion. He said: "I don't like E.'s looks. She looks naughty. Her cheeks look naughty" (and he puffed out his own cheeks by way of illustration). He added: "She looks naughty about here," pointing to his forehead just above the eyes. He then proceeded to describe the measures he had taken for correcting her naughtiness.

"One day," he said, "when she was naughty, I told her about dynamite men, and she was naughty after that. And then I told her about the dynamite men being put in prison, and she was naughty even then." On this his mother interposed: "Why ever did you talk about dynamite men, dear?" C. "Because I thought it would make her better. Perhaps if I could have told her what sort of a place a prison was that would have made her better. But I didn't know." Then after a pause: "What do they put people in prison for, mamma?"

M. "For stealing, hurting other people, and telling stories."

C. (abruptly). "Oh, E. tells a lot of stories."

M. "Oh no, E. doesn't tell stories."

C. "Yes, she does. When I say yes she says no, and I know that I am right."

He talked of this same experience of feminine frailty to others, remarking to one of his lady friends that E. had not said a sensible thing all the week he was staying with her. He also attacked his father on the subject, and after illustrating her odd way of contradicting others, he observed: "She's are never as sensible as he's, I suppose, are they, papa? especially if a boy is older".

The father asked him if he had shown his displeasure to his girl playmate, to which he replied: "I didn't show my angriness;" and after a pause: "I'd better not show how

angry I can be, I'm too strong and too big, ain't I?" As a matter of fact he had once, at least, been so ungallant as to strike his companion on her nose with one of his toys, selecting this objective for his attack apparently for no other reason than that it was already disfigured by a scratch. He wound up this disquisition on E.'s shortcomings by an attempt at a magnanimous allowance for her weakness: "I b'lieve she tries not to say these things because she knows they will tease me, but I think she can't help it;" and he repeated this as if to emphasise the point.

Even our much-biassed chronicler is obliged to own that all this is a lamentable exhibition of boyish swagger, and particularly out of place in one born in these enlightened days, when, as we all know, 'she's' are as good as 'he's,' if not a great deal better. The only palliation of the unpleasant picture of coxcombry which he offers is the information that a year or too later C.'s views about girls were profoundly modified when he found himself in a school where a girl of his own age could beat him at certain things of the mind.

The growing vigour of his self-consciousness was shown in other ways too. He was much hurt by anything which seemed to him an invasion of his liberty. About the end of the sixth month, we read, he had got into 'finicking' ways of taking his food. Thus he conceived a strong dislike for the 'cream' on his boiled milk. If anybody attempted to cross him in these faddish ways he would be greatly offended. It looks as if he were at this time getting a keen sense of private rights, any interference with which he regarded as an offence.

The story about what he would do if his family were shipwrecked suggests that self-sacrifice was as yet not a strong element in the boy's moral constitution. Egoism, it might well seem, was still the foundation of his character. This egoism would peep out now and again in his talk. One day (middle of eighth month) when the family was lodging in a cottage his mother had reason to scold him for walking on the flower-beds in the cottage garden. Whereupon he answered: "It isn't your garden, it's Mr. G.'s". To this the mother

observed: "I know, dear, but I have to be all the more particular because it is not mine"; which observation drew forth the following: "I should think Mr. G. would be all the more particular because it is his". It was evident, writes the father, from this somewhat cynical observation that caring for things and resenting any injury to them seemed to C. to devolve on the owner and on nobody else.

He himself certainly did repel any encroachment on his rights. Here is an amusing illustration. One day (the end of seventh month) he was playing on the Heath under the eye of his mother. He had put on one of the seats a lot of grass and sand as fodder for his wooden horse. While he went away for a minute a strange nurse and children arrived, making a perfectly legitimate use of the bench by seating themselves on it, and in order to get room brushing away the precious result of his foraging expedition. On coming back and seeing what had happened he turned to his mother and swelling with indignation exclaimed loudly: "What do you mean by it, letting these children move away my things?" Of course this was intended to intimidate the real culprits, the children. Finding that they were not abashed at this, but on the contrary were looking at one another with a look of high-bred astonishment, he turned to them and shouted: "What do you mean by it?" This outburst, observes the father, showed a preternatural heat of indignation, for in general he was very distant and reserved towards strange children.

Yet C. was very far from being wholly absorbed in himself and his own interests. It cannot be said indeed that self monopolised the intensest of his feelings, for he felt just as strongly for others too. There was, we are told, a marked development of sympathy during this year. His sister was now away from home at school, and the absence seems to have drawn out kindly feeling. So that when, on one occasion (middle of seventh month), his father and aunt were going to visit her, and to take her to the Crystal Palace, though he wanted dreadfully to go himself, he made a great effort, and in answer to his father's question, what message he had for his sister, answered a little tremulously, "Give her my love," and

then, waxing more valiant, added, "I hope she will enjoy herself at Crystal Palace".

Some months later (end of ninth month), he proved himself considerate for his father, whose repugnance to noises has already been alluded to. A man had come to repair a window and his father had been forced to stop his work and to go out. On his return C. met him in the garden and asked him loudly, evidently so that the man might hear, "Does that man disturb you, papa?" He had previously talked to his mother in an indignant way about the noises which disturbed his father. About a fortnight after this, on hearing some children make an uproar in the passage, he asked indignantly, "What are those children about, making papa not do his work?" "He was at this time," writes the father, "transferring some of that chivalrous protection which he first bestowed on animals to his own kith and kin. He became to me just at this time something of a guardian angel."

His compassion for the lower creation had meanwhile by no means lessened. Here is a story which shows how the killing of animals by human hands still tortured his young heart. One day (towards end of fourth month) he was looking at his beloved picture-book of animals. *Apropos* of a picture of some seals he began a talk with his mother in the usual way by asking her a question.

C. "What are seals killed for, mamma?"

M. "For the sake of their skins and oil."

C. (turning to a picture of a stag). "Why do they kill the stags? They don't want *their* skins, do they?"

M. "No, they kill them because they like to chase them."

C. "Why don't policemen stop them?"

M. "They can't do that, because people are allowed to kill them."

C. (loudly and passionately). "Allowed, allowed? People are not allowed to take other people and kill them."

M. "People think there is a difference between killing men and killing animals."

C. was not to be pacified this way. He looked woe-begone and said to his mother piteously, "You don't understand me".

He added that he would tell his friend the Heath-keeper about these things.

The father observes on this: "There was something almost heart-breaking in that cry 'You don't understand me'. How can we, with minds blinded by our conventional habits and prejudices, hope to catch the subtle and divine light which is reflected from the untarnished mirror of a child's mind?" Somehow, the father's sentimental comments seem less out of place here. But already the boy's wrestlings of spirit with the dreadful 'must,' which turns men into killers, were proving too much for his young strength. He was learning, sullenly enough, to adjust his eye to the inevitable realities. This accommodation of thought to stern necessity was illustrated by an incident which occurred at the end of the fourth month. He had had some leaden soldiers given him at Christmas. Some time after this he had been observed to break off their guns. His mother now asked him why he had broken them off. He replied: "Oh! that was when I didn't know what soldiers were for, when I thought they were just naughty men who liked to kill people". On his mother then asking him what he now thought soldiers were for, he explained: "Oh! when some people want to do harm to some *other* people, then those other people must send their soldiers to fight them, to stop them from doing harm".

One moral quality had, it seems, always been distinctly marked in C., *viz.*, a scrupulous regard for truth. His father believes the child had never knowingly made a false statement, save playfully, when throwing for a moment the reins on the neck of fancy and allowing it to come dangerously near the confines of truth. This scrupulosity the father connects, reasonably enough, with certain intellectual qualities, as close observation and accurate description of what was observed. Sometimes this scrupulous veracity would display itself in a quaint form. One morning (end of tenth month) C. was obstinate and would not say his lesson to his mother, so that she had to threaten him with forfeiture of his toys till the lesson was got through. On this C. said rebelliously: "Very well, I won't say them". His mother then talked to him

about his naughtiness. He grew very unhappy, and said sobbing and looking the very picture of misery: "It's a good deal worse to break my promise than not to say my lesson".

Another incident of about the same date throws a curious light on the quality of his moral feeling at this period. He had been out one afternoon in the garden with a girl companion of about his own age, and the two little imps between them had managed to strip that unpretending garden of its spring glory, to wit, about twenty buds of peonies. The sacrilege betrayed itself in C.'s red-dyed fingers. A condign chastisement was administered by the mother, and the culprit was sent to bed immediately after tea in the hope that solitude might bring reflexion and remorse. In order to ensure so desirable a result the mother before leaving him in bed enlarged on the heinousness of the offence. At last he began to get downright miserable, and the mother, expectant of a confession of guilt, overheard him say to himself: "I'm *so* sorry I picked the flowers. I didn't have half enough tea." The next day, referring to his mischievous act, his mother happened to say: "You were not sorry for it at the time". Whereupon he burst out in a contemptuous tone: "Eh! you didn't suppose I was sorry at the time? I liked doing it." "Shocking enough, no doubt," writes the father on this in his characteristic manner, "yet may we not see in this defiant avowal of enjoyment in wrong-doing the germ of a true remorse, which in its essence is the resolute confronting of the lower by the higher self?"

His mind was still occupied about the mysteries of God, death, and heaven. Following the example of his sister he would occasionally on going to bed quite spontaneously say his prayers. One evening at the end of the eleventh month, having knelt down and muttered over some words, he asked his mother whether she had heard him. She said no, and he remarked that he had not wished her to hear. On her asking why not, he rejoined: "If anybody hears what I say perhaps God won't listen to me," which seems to suggest that talking to God was to him something particularly confidential, what he himself once described as telling another a "private secret".[1]

[1] Compare above p. 283 f.

When his mother asked him what he had been praying for he said it was for a fine day on his birthday. He thought much of God as the maker of things, and wondered. One day (middle of tenth month) he asked how God made us and "put flesh on us," and made "what is inside us". He then proceeded to invent a little theory of creation. "I s'pose he made stone men and iron men first, and then made real men." "This myth," writes the father, "might readily suggest that the child had been hearing about the stone and the iron age, and about sculptors first modelling their statues in another material. It seems probable, however, that it was invented by a purely childish thought as a way of clearing up the mystery of the living thinking man." There is subsequent evidence that his theory did not fully satisfy him. In the eleventh month he continued to ask how God made things, and wanted to know whether 'preachers' could resolve his difficulty. (His sister appears about this time to have had the common childish awe for the clergy.) On learning from his mother that even these well-informed persons might not be able to satisfy all his questions, he observed: "Well, anyhow, if we go to heaven when we die we shall know," and added after a pause, "and if we don't it doesn't much matter". "From this," writes the father, "it seems fully clear that the child was beginning to adjust his mind to the fact of mystery, to the existence of an impenetrable region of the unknown."

C.'s deepest interest just now in religious matters grew out of the feelings awakened by the thought of death. In the early part of the year he plied his mother with questions about death and burial. He was manifestly troubled about the prospect of being put under ground. One night (end of third month) when his mother was seeing him to bed, he said: "Don't put earth on my face when I am buried". The touch of the bed-clothes on his face had no doubt suggested the stifling effect of the earth. About the same date he remarked in his characteristic abrupt manner, after musing for some time: "Mamma, perhaps the weather will be *very, very* fine, much finer than we have ever seen, when we are not there". The mother was not unnaturally puzzled by this dark utterance and asked him what

he meant. He replied: "I mean when we are buried, and then we shall be very sorry". "Who can tell," writes the father, "what this fancy of lying under the ground, yet catching the whispering of the most delicious of summer breezes, and the far-off touch of the gladdest of sunbeams, and the faint scent of the sweetest of flowers, may have meant for the wee dreamy sensitive creature?"

The following dialogue between C. and his mother at the beginning of the fourth month may further illustrate his feeling about this subject.

C. "Why must people die, mamma?"

M. "They get worn out, and so can't live always, just as the flowers and leaves fade and die."

C. "Well, but why can't they come to life again just like the flowers?"

M. "The same flowers don't come to life again, dear."

C. "Well, the little seed out of the flower drops into the earth and springs up again into a flower. Why can't people do like that?"

M. "Most people get very tired and want to sleep for ever."

C. "Oh! *I* shan't want to sleep for ever, and when I am buried I shall try to wake up again; and there won't be any earth on my eyes, will there, mamma?"

The difficulty of coupling the fact of burial with after-existence in heaven then began to trouble him. One day (middle of eighth month) he and his mother were passing a churchyard. He looked intently at the gravestones and asked: "Mamma, it's only the naughty people who are buried, isn't it?" Being asked why he thought so he continued: "Because auntie said all the good people went to heaven". On his mother telling him that all people are buried he said: "Oh, then heaven must be under the ground, or they couldn't get there". Another way by which he tried to surmount the difficulty was by supposing that God would have to come up through the ground to take us to heaven. He clung tenaciously to the idea of heaven as an escape from the horror of death. That the hope of heaven was the core of his religious belief is seen

in the following little talk between him and his mother and sister one evening at the end of the first month.

C. "Does God ever die?"

E. (the sister). "No, dear, and when we die God will take us to live with him in heaven."

C. (to mother). "Will he, mamma?"

M. "I hope so, dear."

C. "Well, what is God good for if he won't take us to heaven when we die?"[1]

Sixth Year.

The sixth year, the last with which the diary attempts to deal, is very meagrely represented. The observation was plainly becoming intermittent and lax. I have, however, thought it worth while to complete this sketch of a child's mental development by a reference to this fragmentary chapter.

The child continued to be observant of the forms of things. He began to attend the Kindergarten at the beginning of this year, and this probably served to develop his visual observation. We have, however, no very striking illustrations of his perceptual powers. It might interest the naturalist to know that he compared the head of Mr. Darwin, which he saw in a photograph, to that of an elephant, and being asked why he thought them like one another, answered: "Because it is so far from the top of the head to the ear". Perhaps admirers of our great naturalist may be ready to pardon the likening of their hero's head to that of one of the most intelligent of the large animal family which he showed to be our kinsfolk.

Another remark of his at about the same date seems to show that he still entertained a particularly gross form of the animistic conception that things are double, and that there is a second filmy body within the solid tangible one. He was looking at the pictures in Darwin's *Descent of Man*, and came on some drawings of the human embryo. His mother asked him what they looked like, and he replied: "Why, like the

[1] On children's attempts to understand about being buried and going to heaven, see above, p. 120 ff.

inside of persons of course". Asked to explain this he pointed to the head, the eye, the stomach, and so forth.

He spontaneously began to talk (middle of eighth month) about opposition of colours. He was looking at his coloured soldiers and talking to himself in this wise: "Which colour is most opposite colour to blue?" He said that red was its opposite, not yellow as suggested by his father, in which opinion he probably has a good many older people on his side. He also observed to his father at the same date: "I tell you, papa, what two colours are very like one another, blue and green". The father remarks, however, that he was now mixing pigments and using them, and that the knowledge so gained probably made him bring blue and green nearer to one another than he used to do.

An opportunity of testing his memory occurred at the beginning of the sixth month. He met a gentleman who had been kind to him during that memorable visit to the sea-side village D—— just three and a half years before, and whom he had not seen since. His father asked the child whether he knew Mr. S. He looked at him steadily, and answered yes. Asked where he had seen him, he answered: "Down at ——". He had forgotten the name of the place. On his father further asking him what he remembered about him he said: "He made me boats and sailed them in a pool". This was quite correct. So far as the father can say the fact had not been spoken of to him since the time. If this is so, it seems worth recording that a child of five and a half should recall such distinct impressions of what had occurred when he was only just two.

Fancy, the old frisky, wonder-working fancy, was now getting less active. At least, we meet this year with none of the pretty fairy-myths of earlier years. So far as the journal tells us, it was only in sleep that C. entered the delightful region of wonderland. Here is a quaint dream of his (end of fifth month). It was Christmas time, and he had been seeing a huge prize-ox, a shaggy Highland fellow with big head and curled horns. He had taken a violent fancy to it and wanted his father to draw it for him. A morning or two afterwards he

told his father that he had had a funny dream. Both his father and his mother were turned into oxen, and it was a "very nice dream".

For the rest, the brain of our little Kindergärtner was being engrossed with the business of getting knowledge, and, as a result of this fancy, was being taken in hand by sober understanding and drilled to the useful and necessary task of discovering truth.

We get one or two pretty glimpses of the boy trundling his hoop beside his father in a late evening walk and now and again stopping to ask questions. Here is one (end of third month): They were walking home together across the sands at Hunstanton at the rosy sun-set hour. C. was much impressed and began asking his father how far off the sun was. On finding out that the clouds were not a hard substance but could be passed through, he wanted to know what was on the other side. "Is it another world, papa, like this?"

Shortly after this date he was talking about the size of the sun, when he remarked: "I s'pose the sun's big enough to put on the world and make see-saw". He seemed to think of the sun as a disc, and imagined that it might be balanced on the earth-globe.

What with home instruction and the 'lessons' at the Kindergarten his little brain was being confronted with quite a multitude of new problems. It was interesting, remarks the father, to note how he would try to piece together the various scraps of knowledge he thus gathered. For instance, we find him in the ninth month trying hard to make something out of the motley presentations of the 'world' which he had got from classical myths as known through the *Tanglewood Tales* and from his elementary geography lessons. He asked whether Atlas could stand in the middle of the sea and not be drowned. On his father's trying to evade this awkward question, the boy inquired whether the sea came half way up the world. Asked to explain what he meant, he continued: "You know the shore gets lower and lower or else the sea would not go out; and out in the middle it goes down very deep. Now, where the sea comes in, is that half way up the world?" One would like to know how the father met this dark inquiry.

He would sometimes apply his newly-gained knowledge in an odd fashion. One day (middle of ninth month), he observed that his porridge was hottest in the middle, and remarked: "That's just like the earth. It's hottest in the middle. There's real fire there." This smacks just a little perhaps of pedantry, and the child, on entering the new world of school-lore, is, we know, apt to display the pride of learning. Yet we must beware, writes the ever-apologetic father, of judging the child's ways too rigorously by our grown-up standards.

The progress in the more abstract kind of thinking and in the correlative use of abstract language was very noticeable at this stage. An odd example of an original way of expressing a newly attained relation of thought occurred towards the end of the third month. C. was at this time much occupied with the subject of the bearing-rein, the cruelty of which he had learnt from a favourite story, the autobiography of a horse, called *Black Beauty*. One day when walking out, and, as was his wont, vigilantly observant of all passing horses, he said: "That horse has bearing-rein at all," by which he seems to have meant that the horse had it somewhere or wore it sometimes. The use of expressions like these, which at once made his statements more cautious and showed a better grasp of the full sweep of a proposition, was very characteristic at this period.

Even now, however, he found himself sometimes compelled to eke out his slender vocabulary by concrete and pictorial descriptions of the abstract. Thus one day (end of eighth month) he happened to overhear his father say that he should oppose a proposal of a member of the Library Committee to which he belonged. C., boy-like, interested in the prospect of a tussle, asked: "Who is the greatest man, you or Mr. —— ?" Asked by his father, who imagined that the child was thinking of a physical contest with the honourable gentleman, "Do you mean taller?" he answered: "No. Who is most like a king?" In this wise, observes the chronicler, did he try to express his new idea of authority or influence over others.

While he thus pushed his way into the tangle of abstract ideas, he found himself now and again pulled up by a thorny

obstacle. Some of us can remember how when young we had much trouble in learning to recognise the difference between the right and the left hand. C. experienced the same difficulty. One evening (towards the end of the eleventh month) after being put to bed he complained of a sore spot on his foot. Being asked on which foot, the right or the left, he said: "I can t tell when in bed. I can't say when my clothes are off. I know my right side by my pockets." It would seem as if the differences in the muscular and other sensations by help of which we come to distinguish the one side of the body from the other are too slight to be readily recognised, and that a clear intuition of this simple and fundamental relation of position is the work of a prolonged experience.[1]

By the end of the fourth month—a month after joining the Kindergarten—he was able to count up to a century. His interest in counting, which was particularly lively just now, is illustrated in the fact that in the fifth month, after showing himself very curious about the word 'fortnight,' saying again and again that it was a funny word, and asking what it meant, he put the question: "Does it mean fourteen nights?"

About the same date he proffered a definition of one of the most difficult of subjects. His mother had been trying to explain the difference between poetry and prose by saying that the former describes beautiful things, when he suddenly interrupted her, exclaiming: "Oh yes, I know, it's language with ornaments". But here the diary has, it must be confessed, the look of wishing to display the boy's accomplishments, a fault from which, on the whole, it is creditably free.

As might be expected, the boy's reasoning was now much sounder, that is to say, more like our own. Yet now and again

[1] According to Professor Baldwin's observations the infant shows a decided right-handedness, that is, a disposition to reach out with the right hand rather than with the left, by the seventh or eighth month (quoted by Tracy, *The Psychology of Childhood*, p. 55). But of course this is a long way from a definite intuition and idea of the right and the left hand. Mr. E. Kratz finds that more than one-fourth of children of five coming to a primary school cannot distinguish the right hand from the left.

the old easy fashion of induction would crop up. Thus one day (towards end of ninth month) he was puzzled by the fact that boys of the same age might be of unequal size. This brought him to the old subject of growth, and he suggested quite seriously that the taller boys had had more sun. On his father saying: 'The sun makes *plants* grow,' he added: "And people too".

His questionings took about this time the direction of origins or beginnings. As with other children, God did not appear to be the starting-point in the evolution of things, and he once asked quite seriously (end of sixth month): "What was God like in his younger days?" With a like impulse to go back to absolute beginnings he inquired about the same date, after learning that chicken-pox was only caught from other animals: "What was the person or thing that first had chicken-pox?" A little later (beginning of ninth month) he and a boy companion of nearly the same age were talking about the beginnings of human life. C. said "I can't make out how the first man in the world was able to speak. A word, you know, has a sound, and how did he find out what sound to make?" His friend then said that his puzzle was how the first babies were nursed. This child seems to have set out with the supposition that the history of our race began with the arrival of babies.

Very little is told us in this unfinished chapter of the child's emotional and moral development. As might be expected from the increase of intellectual activity the movements expressive of the feelings of strain and perplexity which accompany thought grew more distinct. In particular it was noticeable at this time that during the fits of thought the child's face would take on a quaint old-fashioned look, the eye-brows being puckered up and the eye-lids twitching.

He continued very sensitive about the cruelties of the world, more especially towards animals. One day (at the end of the fifth month) his mother had been reading to him his favourite, *Black Beauty*, in which a war-horse describes to the equine author the horrors of war. C. was deeply affected by the picture, and at length exclaimed with much emphasis, "Oh,

ma! why do they do such things? It's a *beastly, beastly* world," at the same time bursting into tears and hiding his face in his mother's lap. "So hard," writes the father, "did the boy still find it, notwithstanding his increased knowledge, to accept this human world as a right and just one."

The religious thought and sentiment remained thoroughly childish. He was still puzzled about the relations of heaven and the grave. One day (end of sixth month) his father observed, looking at the Christmas pudding on the table wreathed with violet flame: "Oh, how I should like to be burned after death instead of being buried". On this C. looking alarmed said: "*I* won't be burned. I shouldn't go to heaven then." On his father remarking: "'Tisn't your body that goes to heaven," he continued: "But my *head* does". Here, writes the father, we seem to perceive a transition from the old gross materialism of last year to a more refined form. C. was now, it may be presumed, localising the soul in the head, and clinging to the idea that at least that limited portion of our frame might manage to get away from the dark grave to the bright celestial regions. It may be too, he adds, that this fancy was aided by seeing pictures of detached cherub heads.[1]

A month or two later (beginning of ninth month) he began to attack the difficult problem of Divine fore-knowledge and free-will. His mother had been remonstrating with him about his naughty ways. He grew very miserable and said: "I can't make out how it is God doesn't make us good. I pray to him to make me good." To this his mother replied that he must help himself to be good. This only drew from C. the following protest: "Then what's the use of having God if we have to help ourselves". "Even now," writes the father, "it looks as if God and heaven were for him institutions, the *raison d'être* of which was their serviceableness to man."

He brought to the consideration of prayer a childish sense of propriety which sometimes wore a quaint aspect. One day (end of third month) on his return from the Kindergarten he asked his mother: "Does God teach us?" and when bidden explain his question continued: "Because they said that at school"

[1] Compare above, p. 123.

("Teach us to be good"). He then added: "But anyhow that isn't a proper way to speak to God". His notion of what was the proper way was illustrated in his own practice. One evening (end of sixth month) after his bath he was kneeling with his head on his mother's lap so that she might dry his hair. He began to pray half audibly in this wise: "Please, God, let me find out before my birthday, but at least on my birthday. . . . So now good-bye!" This ending, obviously borrowed from his sister's letters, was varied on another occasion in this way: "With my love, good-bye".[1]

It seems strange that the diary should break off at a time when there was so much of the quaint and pretty child-traits left to be observed. No explanation of the abrupt termination is offered, and I am only able to conjecture that the father was at this time pressed with other work, and that when he again found the needed leisure he discovered to his chagrin that time, aided by the school-drill, was already doing its work. We know that it is about this time that the artist, Nature, is wont to rub out the characteristic infantile lines in her first crude sketch of a human mind, and to elaborate a fuller and maturer picture. And while the onlooking parent may rejoice in the unfolding of the higher human lineaments, he cannot altogether suppress a pang at the disappearance of what was so delightfully fresh and lovely.

I will close these extracts, following the father's own fashion, with a word of apology. C.'s doings and sayings have seemed to me worth recording, not because their author was in any sense a remarkable child, but solely because he was a true child. In spite of his habitual association with grown-up people he retained with childish independence his own ways of looking at things. No doubt something of the intellectual fop, of the assertive prig, peeps out now and again. Yet if we consider how much attention was given to his utterances, this is not surprising. For the greater part the sayings appear to me the direct naïve utterance of genuine childish conviction. And it is possible that the inevitable impulse of the parent to show off his child has done C. injustice by

[1] Compare above, p. 283.

making too much, especially in the last chapter of the diary, of what looks smart. Heaven grant that our observations of the little ones may never destroy the delightful simplicity and unconsciousness of their ways, and turn them into disagreeable little performers, all conscious of their *rôle*, and greedy of admiration.

XII.

GEORGE SAND'S CHILDHOOD.

The First Years.

MUCH has been written about George Sand, but singularly little about her childhood. Yet she herself, when she set to work, between forty and fifty, to write the *Histoire de ma Vie*, thought it worth while to fill the best part of two volumes of that work with early reminiscences; and herein surely she judged wisely. Good descriptions of childish experience are rare enough. George Sand gives us a singularly full story of childhood; and, allowing for the fact of its author being a novelist, one may say that this story reads on the whole like a record of memory. That a narrative at once so charming and so pathetic should have been neglected, by English writers at least, can only be set down to the circumstance that it is not clearly marked off from the tediously full account of ancestors which precedes it.[1]

The early reminiscences of a great man or woman have a special interest. Schopenhauer has ingeniously traced out the essential similarity of the man of genius and the child. Whatever the value of this analogy, it is certain that the gifted child seems not less but more of a child because of his gifts. This is emphatically true of the little lady with whom we are now concerned, and of whom, since we are interested in her on her own account and not merely as the precursor of the great novelist, we shall speak by her rightful name, Aurore Dupin.

[1] A selection of scenes from the story, with notes, has been prepared for young English students by M. Eugène Joël, under the title, *L'Enfance de George Sand* (Rivingtons).

The reader need not be told that the child who was to become the representative among modern women of the daring irregularities of genius was an uncommon child. She would certainly have been set down as strange and as deficient in childish traits by a commonplace observer. Yet close inspection shows that the untamed and untamable 'oddities' were, after all, only certain common childish impulses and tendencies exalted, or, if the reader prefers, exaggerated. Herein lies the chief value of the story. To this it may be added that this exaggeration of childish sensibility was set in a *milieu* admirably fitted to stir and strain it to the utmost. It was a motley turbulent world into which little Aurore was unceremoniously pitched, and makes the chronicle of her experience a thrilling romance. And all this experience, it may be said finally, is set down with the untroubled regard and the patient hand of one of the old chroniclers. The forty years had left the memory tenacious and clear to a remarkable degree—in this respect the story will bear comparison with the childish recallings of Goethe and the other famous self-historians; at the same time these years had brought the woman's power of quiet retrospect and the artist's habit of calm complacent envisagement. Herein lies a further element of value. The writer feels her identity with the subject of her memoir: she lives over again the passion-storms and ennuis, the reveries and hoydenish freaks of little Aurore; yet she can detach herself from her heroine too, and discuss her and her surroundings with perfect artistic aloofness.

Aurore—or, to give her her full appellation, Amandine Lucile Aurore Dupin—was born in 1804. Her father, a distinguished officer of the Empire, was grandson of Maurice de Saxe, natural son of Augustus II., King of Poland. Her mother was a daughter of a Parisian bird-seller, and a true child of the people. The student of heredity may, perhaps, find in this commingling of noble and humble blood a key to much of the wild and bizarre in the child as well as in the later woman. However this may be, it is certain that the disparate alliance gave the sombre and almost tragic hue to the child's destiny. Through the precious years that should

be given over to happy play and dreams, she was to hear the harsh and dismal contention of classes, and hear it, too, in the shape of a bawling strife for the possession of herself.

The first home was a humble lodging in Paris. The father was away. The mother, disdained by the father's family, had to be hard at work, and the baby had its irregular career foreshadowed by being often handed over to a male nurse, one Pierret, an ugly and quarrelsome though really good-natured creature, whom an accident suddenly made a devoted friend of the small family, faithfully dividing his time between the *estaminet* and the Dupin *ménage*.

Beyond a recollection of an accident, a fall against the corner of the chimney-piece, which shock, she tells us, 'opened my mind to the sense of life,' the first three years yield no reminiscences. From that date onwards, however, her memory moves without a hitch, and gives us a series of delightful vignette-like pictures of child-life.

Her mother had a fresh, sweet voice, and the first song she sang to Aurore was the nursery rhyme:—

Allons dans la grange
Voir la poule blanche
Qui pond un bel œut d'argent
Pour ce cher petit enfant.

I was vividly impressed [she writes] with that white hen and that silver egg which was promised me every evening, and for which I never thought of asking the next morning. The promise returned always, and the naïve hope returned with it.

The legend of little Father Christmas, a good old man with a white beard, who came down the chimney exactly at midnight and placed a simple present, a red apple or an orange, in her little shoe, excited the infantile imagination to unusual activity.

Midnight, that fantastic hour which children know not, and which we point out to them as the unattainable limit of their wakefulness! What incredible efforts I made not to fall asleep before the appearance of the little old man. I had at once a great desire and a great fear to see him; but I could never keep awake.

The love of sound, so strong in children, found an outlet in

playing with some brass wirework on the doors of an alcove near her bed.

> My special amusement before going to sleep was to run my fingers over the brass network. The little sounds that I drew thence seemed to me a heavenly music, and I used to hear my mother say, "There's Aurore playing the wirework"

Her vivid recollection enables her to describe with a sure touch the oddly mixed and capriciously changeful feeling of children towards their dolls and other simulacra of living creatures. She somehow had presented to her a superb Punch, brilliant with gold and scarlet, of whom she was greatly afraid at first, on account of her doll. Before going to bed she securely shut up this last in a cupboard, and laid the brilliant monster on his back on the stove; but her anxieties were not yet over.

> I fell asleep very much preoccupied with the manner of existence of this wicked being who was always laughing, and could pursue me with his eyes into all the corners of the room. In the night I had a frightful dream: Punch had got up, his hump had caught on fire on the stove, and he ran about in all directions, chasing now me, now my doll, which fled distractedly. Just as he was overtaking us with long jets of flame, I awoke my mother with my cries.

Her childish way of looking at dolls is thus described in another place:—

> I do not remember to have ever believed that my doll was an animated being; nevertheless, I have felt for some of my dolls a real maternal affection. . . . Children are between the real and the impossible. They need to care for, to scold, to caress, and to break this fetish of a child or animal that is given them for a plaything, and with which they are wrongly accused of growing disgusted too quickly. It is quite natural, on the contrary, that they should grow disgusted with them. In breaking them they protest against the lie.

She only broke those, she adds, that could not stand the test of being undressed, or that proclaimed their unfleshly substance by falling and breaking their noses. The fluctuations of childish feeling in this matter, and the triumph of faith over doubt in the case of a real favourite, are prettily illustrated in a later story of how she parted from her doll when she was going from home on a long journey.

At the moment of setting out I ran to give it a last look, and when Pierret promised to come and make it take soup every morning, I began to fall into a state of doubt, which children are wont to feel respecting the reality of these creatures, a state truly singular, in which nascent reason on one side and the need of illusion on the other combat in their heart greedy of maternal love. I took the two hands of my doll and joined them over its breast. Pierret remarked that this was the attitude of a dead person. Thereupon I raised the hands, still joined, above the head, in the attitude of despair or of invocation. With this I associated a superstitious idea, thinking that it was an appeal to the good fairy, and that the doll would be protected, remaining in this position all the time of my absence.[1]

The gift of vivid imagination is probably quite as much a torment as a joy to a child, as the story of Punch suggests. Aurore's finely strung nervous organisation exposed her to a preternatural intensity of fear, and made any clumsy attempt to 'frighten' by suggestion of 'black hole,' or other childish horror, more than ordinarily cruel. One day she had been with her mother and Pierret on a visit to her aunt. On returning towards the evening she was lazy and wanted the amiable Pierret to carry her. So to spur her on her mother threatened in fun to leave her alone if she did not come on. The child knew it was not meant, and daringly stopped while the others made a feint of moving on. It happened that a little old woman was just then lighting a lamp hard by, and, having overheard the talk, turned to the child and said in a broken voice, 'Beware of me; it is I who take up the wicked little girls, and I shut them in my lamp all the night'.

It seemed as if the devil had whispered to this good woman the idea that would most terrify me. I do not remember ever experiencing such a terror as she caused me. The lamp, with its glittering reflector, instantly took on fantastic proportions, and I saw myself already shut in this crystal prison consumed by the flame which the

[1] What George Sand here writes about the intrusion of doubt and disgust into the child's feeling for the doll does not, I think, contradict what was said above in chapter ii. on the intensity and persistence of his faith. In truth these are illustrated in the very resistance to the occasional attack of the child's nascent reason, just as they are illustrated in the resistance to others' sceptical assaults.

Punch in petticoats made to burst forth at her pleasure. I ran towards my mother uttering piercing cries. I heard the old woman laugh, and the grating sound of the lamp as she remounted gave me a nervous shiver.

At bottom Aurore's nature was a happy one, and if it encountered in the real world the terrors of childhood, it found in the ideal world of fiction its supreme delights. Before she learned to read (about four) she had managed to stock her small brain with an odd jumble of supernatural imagery, the outcome of fairy stories recited to her, and of picture-books setting forth incidents from classical mythology and the lives of the saints; and she soon began to make artistic use of this motley material. Her mother, she tells us, used to shut her within four straw chairs in order to keep her from playing with the fire. She would then amuse herself by pulling out the straws with her hands (she always felt the need of occupying her hands) and composing in a loud voice interminable stories. They were of course modelled on the familiar fairy-tale pattern. The principal characters were a good fairy, a good prince, and a beautiful princess. There were but few wicked beings, and never great misfortunes. 'All arranged itself under the influence of a thought, smiling and optimistic as childhood.' These stories, carried on day after day, were the subject of amusing comment. 'Well, Aurore,' the aunt used to ask, 'hasn't your prince got out of the forest yet?'

To Aurore's ardent imagination, play, as the story of the doll suggests, was more than the half-hearted make-believe it often is with duller children. She was able to immerse her whole consciousness in the scene, the occupation imagined, so as to lose all account of her actual surroundings. One evening, at dusk, she and her cousin were playing at chasing one another from tree to tree, for which the bed-curtains did duty. The room had disappeared for these little day-dreamers; they were really in a gloomy country at the oncoming of night and when they were called to dinner they heard nothing. Aurore's mother had finally to carry her to the table, and she could ever after recall the astonishment she felt on seeing the light, the table, and other real objects about her.

Even at this tender age the child came into contact with the large mysterious outer world. At her aunt's home at Chaillot there was a garden, the one garden she knew, a small square plot, seeming a vast region to Aurore, shut in by walls. At the bottom of this garden, on a green terrace, she and her cousin used to play at fighting battles.

> One day we were interrupted in our games by a great commotion outside. There were cries of 'Vive l'Empereur!' marchings with quick step, and then retirings, the cries continuing all the while. The emperor was, in fact, passing at some distance, and we heard the tread of the horses and the emotion of the crowd. We could not look over the walls, but the whole thing seemed very beautiful to my fancy, and we cried with all our strength, 'Vive l'Empereur!' transported by a sympathetic enthusiasm.

She first saw the Emperor in 1807, from the good Pierret's shoulders, where, being a conspicuous object, she attracted Napoleon's quick eye. 'I was, as it were, magnetised for a moment by that clear look, so hard for an instant, and suddenly so benevolent and so sweet.'

The political storm that was then raging on the sea of Europe made itself felt even in the far-off and seemingly sheltered creek of Aurore's small life. Her father was aide-de-camp to Murat at Madrid, and in 1808 the mother resolved to betake herself to him with her child. It was a singular experience for a girl just completing her fourth year, and the narrative of it is romantic enough. Her imagination was strangely affected by the sight of the great mountains, which seemed to shut them in and to forbid their moving forwards or backwards. Yet she felt no fear at the postillion's malicious fictions about brigands which quite horrified her mother. In Madrid they found themselves quartered in a large and magnificent palace. The unaccustomed space and splendour at first troubled the child. She was tormented by the huge pictures from which big heads seemed to come out and follow her, and she was further alarmed by a low mirror which gave her the first sight of her whole figure and made her feel how big she was.

Murat was not over well pleased at the arrival of his aide-de-camp's wife and child, so an attempt was made to propiti-

ate him by decking the little maid in a gay and coquettish uniform. The child, who was no coquette, seems to have cared but little for this performance, though she soon began to find amusement in her new sumptuous dwelling.

As soon as I found myself alone in this large room I placed myself before the low glass, and I tried some theatrical poses. Then I took my white rabbit, and tried to force it to do likewise; or rather I pretended to offer it as a sacrifice to the gods, using a footstool as altar. . . . I had not the least feeling of coquetry; my pleasure came from the make-believe that I was playing in a quartette scene in which were two little girls and two rabbits. The rabbit and I addressed, in pantomime, salutations, threats, and prayers to the personages of the mirror, and we danced the bolero with them.

It was at Madrid that she first made acquaintance with one of Nature's most fascinating mysteries, the echo.

I studied this phenomenon with an extreme pleasure. What struck me as most strange was to hear my own name repeated by my own voice. Then there occurred to me an odd explanation. I thought that I was double, and that there was round about me another "I" whom I could not see, but who always saw me, since he always answered me.

She then combined with this strange phenomenon another, *viz.*, the red and blue balls (ocular spectra) that she got into her eyes after looking at the golden globe of a church glittering against the sky, and so found her way to a theory that everything had its double—a theory which, Mr. Tylor and others tell us, was excogitated in very much the same way by uncivilised man. She spent days in trying to get sight of her double. Her mother, who one day surprised her in this search, told her it was echo, 'the voice in the air!'

This voice in the air no longer astonished me, but it still charmed me. I was satisfied at being able to name it, and to call to it, 'Echo, are you there? Don't you hear me? Good-day, Echo!'[1]

The next event of deep import for Aurore was the sudden death of her father by a fall from his horse, which occurred in the autumn of the same year. The first visit of the King of Terrors to a home has been a black landmark in many a

[1] Compare above, p. 113.

child's life. Aurore was at first 'annihilated' by excess of grief and fear, for, as she says, 'childhood has not the strength to suffer'. The days that immediately followed the bringing in of the lifeless body were passed in a sort of stupor. Clear recollection dates only from the moment when she was to be clad in the conventional black.

> The black made a strong impression on me. I cried in submitting to it; for though I had worn the black dress and veil of the Spaniards, I had certainly never put on black stockings, and the stockings frightened me terribly. I would have it that they were putting on me the legs of death, and my mother had to show me that she wore them also.[1]

The father's death brought a profound change into the child's life. The despised mother had already been recognised by the paternal grandmother, and a certain advance made towards a show of amity. Visits were paid to the grandmother's château at Nohant, and it was, in fact, when they were staying there that the fatal accident occurred.

The common loss drew the two women together for a time, but the contrasts of temperament and of education were too powerful, and the jealousy which had first directed itself to the father now found a new object in his talented child. She has given us more than one excellent description of mother and grandmother. The latter, a blonde with white and red complexion, imposing air, always dressed in a brown silk robe and a white wig frizzled in front, was grave and quiet, 'a veritable Saxon,' a friend of the *ancien régime*, a disciple of Voltaire and Rousseau, albeit a stickler for the conventionalities of high life. The mother was a brunette, of an ardent temperament, endowed with considerable talent, yet timid and awkward before grand folk, a Spanish nature, jealous and passionate, a true democrat withal, and a worshipper of the Emperor. The problem of dividing poor little Aurore between two such women, habiting two distinct worlds, would have baffled Solomon himself. The grandmother insisted on the advantages of bringing up the child as a lady, and the mother, after a hard

[1] Compare this with other accounts of the first impression of death given above, p. 237 f.

struggle, relinquished her claims, the girl being handed over to the grandmother and transported into the new world of Nohant.

The story of this struggle, which tore the heart of Aurore as much as that of her mother, is a tragedy of child-life. Aurore's instincts bound her to her mother. She implored her not to give her up for money—she understood she was to be the richer for the change. She was beside herself with joy when her grandmother allowed her to visit the maternal home, and she has given us a charming account of these visits. The rooms were poor and ugly enough by the side of her grandmother's salons; yet—

> How good my mother seemed, how amiable my sister, how droll and agreeable my friend Pierret! I could not stop repeating, 'I am here at home: down there I am at the house of my grandmother'. 'Zounds!' said Pierret; 'don't let her go and say *chez nous* before Madame Dupin. She would reproach us with teaching her to talk as they do *aux-z-halles!*' And then Pierret would burst out into a fit of laughter, for he was ready to laugh at anything, and my mother made fun of him, and I cried out, 'How we are enjoying ourselves at home!'

When she found that she was to live at Nohant she was beside herself with grief, and implored her mother to take her away, and to let her join her in some business enterprise. The mother seemed at first to yield to these entreaties; but the barriers of rank proved to be inexorable, and would not let the little orphan pass. The narrative of the final departure of the mother from Nohant is deeply pathetic. It was the eve of the parting: and the child resolved to write a letter to her mother in which for the last time she poured out her passionate love and her implorings to be taken with her. But the house was sentinelled with hostile maids, and how to get the letter to its destination? At last, lover-like, she bethought her of putting it behind a portrait of her grandfather in her mother's room. To make sure of her finding it, she hung her nightcap on the picture, writing on it in pencil 'Shake the portrait!' The mother came, but a provoking maid stayed a long half-hour with her. Aurore dared not move. Then, having waited another half-hour for the maid to fall asleep, she crept to her

mother, whom she found reading the letter and weeping. She pressed her child to her heart, but would listen to no more proposals of flight from Nohant.

I cried no more—I had no more tears; and I began to suffer from a trouble more profound and lacerating than absence. I said to myself, 'My mother does not love me as much as I love her'.

In the distraction of her grief she resolved that if it was unbearable she would walk to Paris and rejoin her mother; and, with characteristic inventiveness, thought out, by help of her fairy stories, how she would avoid the anguish of begging by disposing of some precious trinkets.

But the grief, like many another that looks crushing at first, proved not unbearable. In time the child learnt to take kindly to her new home, and even to love the stately and severe-looking grandmamma.

The Grandmother's Regime.

It was verily a new home, this country house at Nohant. Besides the grave grandmamma bent on drilling Aurore into the proprieties, there was another solemn figure in Deschartres, her friend and counsellor, who combined the functions of steward of the estate and tutor of the young people. His pupils were Aurore herself, a half-brother Hippolyte, whose birth added one more irregularity to the family history, and of whom the *Histoire* has much to say. Hippolyte was a wild-tempered youth, more given to mischievous adventure and practical joking than to serious study, and proved a considerable set-off to the formal gravity of the elders of the household. A second youthful companion was supplied in Clotilde, a girl of humble parentage, who was probably introduced by the authorities as a concession to Rousseau's teaching, and supplied a link between the young lady and the peasant world she was to love and to portray. Beyond the house was the unpretending country of Le Bas Berry, with its 'landes' or wastes, the 'Valée Noire' of Aurore's early descriptions, which more than one of our writers have found half English in character, and which was to become to Aurore what the Midlands were to George Eliot.

The first effect of this forced separation from the mother seems to have been to throw Aurore in upon herself, and to confirm her natural tendency to reverie. She says much at this stage of her day-dreaming, which overtook her both when alone and when joining her companions in play. It visited her regularly as she sat at her mother's feet in the evening listening to her reading, with an old screen covered with green taffeta between her and the fire.

I saw a little of the fire through this worn taffeta, and it formed on it little stars, whose radiation I increased by blinking my eyes. Then little by little I lost the meaning of the phrases which my mother read. Her voice threw me into a kind of moral stupor, in which it was impossible for me to follow an idea. Images began to shape themselves before me, and came and settled on the green screen. They were woods, meadows, rivers, towns of a grotesque and gigantic architecture, as I have often seen them in dreams; enchanted palaces with gardens like nothing that exists, with thousands of birds of azure, gold, and purple, which sprang on the flowers and let themselves be caught. . . . There were roses—green, black, violet, and especially blue.[1] . . . I closed my eyes and still saw them, but when I reopened them I could only find them again upon the screen.

As at Madrid, so at Nohant: the splendour of her new home caused her alarm at first. On the wall-paper of her bedroom above each door was a large medallion with a figure: the one a joyous dancing Flora; the other a grave, severe Bacchante, standing with arm stretched out leaning on her thyrsus. The first was beloved, the second dreaded. The child's bed was so placed that she had to turn her back on her favourite. She hid her head under the bed-clothes and tried not to see that terribly stern Bacchante, but in vain.

In the middle of the night I saw it leave its medallion, glide along the door, grow as big as a real person (as children say), and, walking to the opposite door, try to snatch the pretty nymph from her niche. She uttered piercing cries, but the Bacchante paid no heed to them. She pulled and tore the paper till the nymph detached herself and fled into the middle of the chamber. The other pursued her thither, and as the poor fugitive threw herself on my bed in order to hide her-

[1] A blue rose was for a long time the favourite dream of Balzac.

self under my curtain, the furious Bacchante came towards me and pierced us both with her thyrsus, which had become a steeled lance, whose every stroke was to me a wound of which I felt the pain.

In her play with Ursule and Hippolyte she continued to indulge in her passion for vivid imaginative realisation. When playing at crossing the windings of a river, rudely marked with chalk on the floor, five minutes would suffice to generate this kind of hallucination.

I lost all notion of reality, and believed I could see the trees, the water, the rocks—a vast country—and the sky, now bright, now laden with clouds which were about to burst and increase the danger of crossing the river. In what a vast space children think they are acting when they thus walk from table to bed, from the fireplace to the door!

On one of these occasions, Hippolyte, with the boy's bent to realism, took the water jug, and pouring its contents on the floor, produced a closer semblance of the river. The natural consequence followed: the children, wholly absorbed in their little drama, were caught by Aurore's mother in the very act of paddling with naked feet and legs in a dirty puddle formed by the water and the staining of the floor, and were visited with summary chastisement.

More daring pranks would sometimes be ventured on with Hippolyte. One day, as Deschartres was away shooting, the boy got one of his works on Incantation, and tried, much in the fashion of Tom Sawyer and Huckleberry Finn, to get a peep at the supernatural. Mysterious lines, digits, etc., were duly traced on the floor with chalk, and other preparations carried out. Then they awaited with deepening agitation the first indication of success, the darting out of a blue flame on certain digits or figures. Long minutes passed, yet no blue flame, no devil's horns, appeared to thrill the eager watchers. At length Hippolyte, in order to keep up the girl's excitement, put his ear to the floor and declared that he could hear the crackling sound of a flame. But it was all in vain. After all it was but a game, 'though a game that made our hearts beat'.

Hippolyte was given to dangerous experiments, which he

dignified by high-sounding names. Thus he one day put gunpowder into a big log and threw this into the fire, with the view of blowing the saucepan into the kitchen, an occupation which he cheerfully described as studying the theory of volcanoes. He succeeded in leading on Aurore into pranks of a decidedly hoydenish character, such as must have sadly grieved the decorous grandmamma had she known of them. They one day went so far as to dig a trough across the garden-path, fill this with light wet earth, duly cover it with sticks and leaves, and then watch Deschartres, who was particularly vain of his white stockings, as with the stiff, pompous gait of the pedagogue he marched straight into the trap.

Such a child as Aurore, with her fits of reverie alternating with somewhat rude outbursts of animal spirits, was not easily drilled into those proprieties on which Madame Dupin set so high a value. This good lady took great pains to make Aurore walk properly, wear her gloves, give up the familiar 'thou,' and adopt the stilted mode of address of the fashionable world. But she did not appreciate these educational experiments. 'It seemed to me that she shut me in with herself in a big box when she said to me, "Amusez-vous tranquillement".' While, for the sake of pleasing her guardian, she outwardly conformed to the rules of society, in her heart she remained a rebel, and was dreadfully bored, when she ceased to be amused, by her grandmother's 'old Countesses'. One exception to her general dislike of the grand personages she had now to meet was made in the case of her great-uncle, the Abbé of Beaumont. He seems to have been a man of ability and culture, as well as of amiable heart, and he proved a good friend of the family after the death of Colonel Dupin by improvising the distraction of a comedy at Nohant, in which Deschartres' flute did duty as orchestra, and the little Aurore was called on to dance a ballet all by herself. The Abbé's house, which was decorated throughout in the style of Louis XIV., filled her with admiration, and she loved to wander, candle in hand, alone through its vast salons while the older people were absorbed in their cards. This grand-uncle, by-the-bye, served in part as the prototype of the Canon in *Consuelo*.

The formal teaching was mostly handed over to Deschartres, though the grandmother gave instruction in music. Aurore can hardly be said to have been a backward child. She read well at four. Towards five she learnt to write, but not having patience to copy out the alphabet, struck out an original orthography of her own, and indited letters in this to Ursule and Hippolyte. It was, she tells us, very simple and full of hieroglyphics. She devoured a certain class of books, and found delight for five or six months in the stories of Madame d'Aulnoy and of Perrault, which she came across at Nohant. She adds that though she has never re-read them since, she could repeat them all from beginning to end. She tried, out of regard for her grandmamma, to take kindly to arithmetic, Latin, and French versification, which Deschartres taught her, but she could not master her dislike. After a little scene, in which the passionate Deschartres threw a big dictionary at the girl's head, the Latin had to be given up altogether. The study she liked best was history, since it gave her the chance of indulging in the pleasures of imagination. She had to prepare extracts from a book for her grandmother, and as she soon found that these were not compared with the original, she began to introduce additions of her own. Without altering essential facts, she tells us, she would place the historical personage in new imaginary situations, so as to develop the character more completely. In truth, she seems to have used history very much after the fashion which Aristotle, and after him Lessing, recommend to the poets, varying the situation, but leaving the character intact.

In addition to these more solid studies, the young lady had special lessons in dancing and in calligraphy. Both the dancing-master and the writing-master came in for her ridicule. The latter, she tells us, was

> a professor of large pretensions, capable of spoiling the best hand with his systems. . . . He had invented various instruments by which he compelled his pupils to hold up the head, to keep the elbow free, three fingers extended on the pen, and the little finger stretched on the paper in such a way as to support the weight of the hand.

It must have been a joyous moment for Aurore when she was set free from the restraints and impositions of the château for a couple of hours' visit to some adjoining farm, where she could shout, laugh, and romp with the peasant girls. Here she would climb the trees, rush wildly down from the top to the bottom of a mountain of sheaves in the barn, and do other outrageous things; or when the dream-mood was on her she would quietly contemplate her rustic friends as they tended the lambs, hunted for eggs, or gathered fruit from the orchard, weaving their figures into one of her interminable romances.

Among the charming rural pictures that her pen has drawn for us in these recollections there is one of a swineherd, called Plaisir, for whom she conceived a strange friendship. She loved to watch his odd figure, always clothed in a blouse and hemp trousers, 'which with his hands and naked feet had taken the colour and the hardness of the earth,' armed with a triangular iron instrument, 'the sceptre of swineherds,' and looking like 'a gnome of the glebe, a kind of devil between man and werwolf'. As the swine turned up the soil with their snouts, the birds would come to forage.

> Sometimes these birds perched on the hog merely to get warm, or in order the better to observe the labour from which they were to profit. I have often seen an old ashy rook balancing himself there on one leg with a pensive and melancholy air, while the hog bored deeply in the soil, and by these labours caused it oscillations which disturbed it, rendered it impatient, and finally drove it to correct this clumsiness by strokes of its beak.

Nor was it merely as playmates that the young lady from the château deigned to associate with the peasantry. She threw herself with ardent sympathy into the hard toilsome life of the people. One day, as she chanced to see an old woman stooping, as well as her stiff limbs allowed her, to gather sticks in her grandmother's garden, she set vigorously to work with bill-hook cutting dry wood, working late into the evening, and forgetting all about her meal, for she was 'strong as a peasant girl'. She then set out with blood-stained face and hands, and with a weight greater than that of her own

body, for the poor woman's hut, where she enjoyed a well-earned slice from her black loaf.

This contact with the rustic mind, so oddly introduced into the fashionable scheme of education, exerted a profound effect on the child's imagination. She listened eagerly to the superstitious stories which the hemp-dressers related when they came to crush the hemp, sitting in the moonlight within view of the crosses of a cemetery. Among these were a sacristan's gruesome stories of interments and of the rats that lived in the belfry. The doings of those rats, she tells us, would of themselves fill a volume. He knew them all, and had given them the names of the more important among the deceased villagers. They were very clever, and could, among other exploits, arrange grains or beans given them in the form of a circle enclosing a cross. It is hardly surprising to learn that these stories robbed Aurore of her sleep.

The rustic legend of the *grande bête* much exercised the girl's brain. She tried to reconcile the superstition with what she had learnt about the animal kingdom. And in this way she concluded that the creature must be a member of a species almost entirely extinct. She imagined that it was leading a solitary existence, being able to survive the rest of its species by hiding during the day and wandering at night. This weird conception soon began to expand into a zoological romance.

If the girl's imaginative impulse had been excited by her historical studies, it could not but be roused to preternatural activity by the stirring political events of the time. In 1812, when she was just eight years old, occurred Napoleon's disastrous invasion of Russia. The absence of all news of the army for fifteen days gave a new direction to her reverie.

> I imagined that I possessed wings, that I darted through space, and that peering into the abysses of the horizon I discovered the vast snows and the endless steppes of White Russia. I hovered, took my bearings in the air, and at last spied the wandering columns of our unhappy legions. I guided them towards France—for that which tormented me the most was that they did not know where they were, and that they were moving towards Asia, plunging more and more into deserts as they turned their backs on the West.

A quaint illustration of the conflict the child's mind was passing through under the contradictory impressions of Napoleon's character received from her mother and from her new instructors at Nohant, is given us in the following:—

> Once I dreamt I carried him (the Emperor) through space and set him on the cupola of the Tuileries. There I had a long talk with him, put him a thousand questions, and said to him, 'If thou prove thyself by thy answers, as people say, a monster, an ambitious man, a drinker of blood, I will cast thee down and dash thee to pieces on the threshold of thy palace; but if thou justify thyself, if thou be what I have believed, the good, the great, the just Emperor, the father of the French, I will replace thee on thy throne, and with my sword of fire defend thee from thy enemies'. He thereupon opened his heart and confessed that he had committed many faults from too great a love of glory, but he swore that he loved France, and that henceforth he would only think of the happiness of the people. On this I touched him with my sword of fire, which rendered him invulnerable.

A Self-evolved Religion.

Perhaps there is no domain of children's thought and feeling that is more remote from our older experience, and consequently less easily understood by us, than that of religion. Their first ideas about the supernatural are indeed, as we have seen above, though supplied by us, not controlled by us.

To most children, presumably, religious instruction comes —at first at least—with a commanding, authoritative force. The story of the supernatural, of the Divine Father, of Heaven, and the rest, cannot be scrutinised by the child—save, indeed, in respect of its inner consistency—for it tells of things unobservable by sense, and so having no direct contact with childish experience. Their natural tendency is to believe, in a submissive, childish way, not troubling about the proof of the mystery.

But even in this submissive acceptance there lies the germ of a subsequent transformation. If the child is to believe, he must believe in his own fashion; he must give body and reality to the ideas of Divine majesty and goodness, and of spiritual approach and worship. Hence the way in which children are

apt to startle the reverent and amuse the profane by divulging their crude material fancies about things spiritual.

Such materialisation of spiritual conceptions is apt to bring trouble to the young mind. It is all so confusing—this exalted Personage, who nevertheless is quite unlike earthly dignitaries, this all-encompassing and never-failing Presence, which all the time refuses to reveal itself to eye or ear. How much real suffering this may entail in the case of children at once serious and imaginative we shall never know. The description of the boy Waldo, in that strangely fascinating book, *The Story of an African Farm*, kneeling bare-headed in the blazing sun and offering his dinner on an altar to God, may look exaggerated to some; but it is essentially true to some of the deepest instincts of childhood. The child that believes at all, believes intensely, and his belief grows all-commanding and prolific of action.

While, however, it is the common tendency of children passively to adopt their elders' religious beliefs, merely inventing their own modes of giving effect to them, there is a certain amount of originality exercised in the formation of the beliefs themselves. Stories of independent creations of a religious cult by children are no doubt rare; and this for the very good reason that it needs the greatest force of self-assertion to resist the pressure of the traditional faith on the childish mind. The early recollections of George Sand furnish what is probably the most remarkable instance of childish daring in fashioning a new religion, with its creed and ritual all complete.

Poor little Aurore's religious difficulties and experiments at solution can only be understood in the light of her confusing surroundings. From her mother—ardent, imaginative, and of a 'simple and confiding faith'—she had caught some of the glow of a fervent piety. Then she suddenly passed into the chilling air of Nohant, where the grandmother equalled her master Voltaire in cynical contempt of the revered mysteries. The effect of this sudden change of temperature on the warm young heart was, as might have been anticipated, extremely painful. Madame Dupin at once recognised the girl's temperament, and saw with dismay the leaning to 'super-

stition,' a trait which she disliked none the less for recognising in it a bequest from the despised *grisette* mother. So she applied herself with all the energy of her strong character to counteract the child's religious tendencies. Now this might have proved neither a difficult nor lengthy process if she had consistently set her face against all religious observances. But though a disciple of Voltaire, she was also a lady with a conspicuous social position, and had to make her account with the polite world and the '*bienséances*'. So Aurore was not only allowed but encouraged to attend Mass and to prepare for the 'First Communion' like other young ladies of her station. Madame Dupin well knew the risk she was running with so inflammable a material, but she counted on her own sufficiency as a prompt extinguisher of any inconveniently attaching spark of devotion. In this way the young girl underwent the uncommon if not unique experience of a regular religious instruction, and, concurrently with this and from the very hand that had imposed it, a severe training in rational scepticism and contempt for the faith of the vulgar.

Even if Aurore had not been in her inmost heart something of a *dévote*, this parallel discipline in outward conformity and inward ridicule would have been hurtful enough. As it was, it brought into her young life all the pain of contradiction, all the bitterness of enforced rebellion.

The attendance on Mass could hardly have seemed dangerous to Madame Dupin. The old *curé* of Nohant was not troubled with an excess of reverence. When ordering a procession, in deference to the mandate of his archbishop, he would seize the occasion for expressing his contempt for such mummeries. In his congregation there was a queer old lady, who used to utter her disapproval of the ceremony with a frankness that would have seemed brutal even in a theatre, by exclaiming, 'Quelle diable de Messe!' And the object of this criticism, on turning to the congregation to wind up with the familiar *Dominus vobiscum*, would reply in an under-tone, yet loudly enough for Aurore's ear, 'Allez au diable!' That the child attached little solemnity to the ritual is evident from her account to the grandmother of her first visit to the Mass: 'I saw the *curé*

who took his breakfast standing up before a big table, and turned round on us now and then to call us names'.

The preparation for the 'First Communion' was a more serious matter. The girl had now to study the life of Christ, and her heart was touched by the story. 'The Gospel (she writes) and the divine drama of the life and death of Jesus drew from me in secret torrents of tears.' Her grandmother, by making now and again 'a short, dry appeal to her reason,' succeeded in getting her to reject the notion of miracles and of the divinity of Jesus. But though she was thus unable to reach 'full faith,' she resolved *en revanche* to deny nothing internally. Accordingly she learnt her catechism 'like a parrot, without seeking to understand it, and without thinking of making fun of its mysteries'. For the rest, she felt a special repugnance towards the confessional. She was able to recall a few small childish faults, such as telling a lie to her mother in order to screen the maid Rose, but feared the list would not satisfy the confessor. Happily, however, he proved to be more lenient than she had anticipated, and dismissed his young penitent with a nominal penance.

The day that makes an epoch in the Catholic girl's life at length arrived, and Aurore was decked out like the rest of the candidates. The grandmother, having given a finishing touch to her instructions by bidding Aurore, while going through the act of decorum with the utmost decency, 'not to outrage Divine wisdom and human reason to such an extent as to believe that she was going to eat her Creator,' accompanied her to the church. It was a hard ordeal. The incongruous appearance of the deistic grandmamma in the place sufficed in itself to throw the girl's thoughts into disorder. She felt the hollowness of the whole thing, and asked herself whether she and her grandmother were not committing an act of hypocrisy. More than once her repugnance reached such a pitch that she thought of getting up and saying to her grandmother, 'Enough of this: let us go away'. But relief came in another shape. Going over the scene of the 'Last Supper' in her thoughts, she all at once recognised that the words of Jesus, 'This is my body and my blood,' were nothing but a metaphor. He

was too holy and too great to have wished to deceive his disciples. This discovery of the symbolism of the rite calmed her by removing all feeling of its grotesqueness. She left the Communion table quite at peace. Her contentment gave a new expression to her face, which did not escape the anxious eyes of Madame Dupin: 'Softened and terrified, divided between the fear of having made me devout and that of having caused me to lie to myself, she pressed me gently to her heart and dropped some tears on my veil'.

It was out of this conflicting and agitating experience, the full sense of the beauty of the Christian faith and the equally full comprehension of the sceptic's destructive logic, that there was born in Aurore's imagination the idea of a new private religion with which nobody else should meddle. She gives us the origin of this strange conception clearly enough:—

> Since all religion is a fiction (I thought), let us make a story which may be a religion, or a religion which may be a story. I don't believe in my stories, but they give me just as much happiness as though I did.[1] Besides, should I chance to believe in them from time to time, nobody will know it, nobody will dispel my illusion by proving to me that I am dreaming.

The form and the name of her new divinity came to her in a dream. He was to be called 'Corambé'. His attributes must be given in her own words:—

> He was pure and charitable as Jesus, radiant and beautiful as Gabriel; but it was needful to add a little of the grace of the nymphs and of the poetry of Orpheus. Accordingly he had a less austere form than the God of the Christian, and a more spiritual feeling than those of Homer. And then I was obliged to complete him by investing him on occasion with the guise of a woman, for that which I had up to this time loved the best, and understood the best, was a woman—my mother. And so it was often under the semblance of a woman that he appeared to me. In short, he had no sex, and assumed all sorts of aspects. . . . Corambé should have all the attributes of physical and moral beauty, the gift of eloquence, the omnipotent charm of the arts—above all, the magic of musical

[1] She here refers to the stories she had long been accustomed to compose for her own private delectation.

improvisation. I wished to love him as a friend, as a sister, while revering him as a God. I would not be afraid of him, and to this end I desired that he should have some of our errors and weaknesses. I sought that one which could be reconciled with his perfection, and I found it in an excess of indulgence and kindness.

The religious idea took an historical form, and Aurore proceeded to develop the several phases of Corambé's mundane existence in a series of sacred books or songs. She supposed that she must have composed not less than a thousand of such songs without ever being tempted to write down a line of them. In each of these the deity Corambé, who had become human on touching the earth, was brought into a fresh group of persons. These were all good people; for although there existed wicked ones, one did not see them, but only knew of them by the effects of their malice and madness. Corambé always appears, like Jesus—and one may add, like Buddha—as the beneficent one, spending himself, and suffering persecutions and martyrdom, in the cause of humanity.

This occupation of the imagination developed 'a kind of gentle hallucination'. Aurore soon learned to betake herself to her hero-divinity for comfort and delight. Even when her peasant companions chattered around her she was able to lose herself in her world of religious romance.

The idea of sacred books was followed by that of a temple and a ritual. For this purpose she chose a little wood in her grandmother's garden, a perfect thicket of young trees and undergrowth, into which nobody ever penetrated, and which, during the season of leaves, was proof against any spying eye. Here, in a tiny, natural chamber of green, carpeted with a magnificent moss, she proceeded to erect an altar against a tree stem, decking it with shells and other ornaments and crowning it with a wreath of flowers suspended from a branch above. The little priestess, having made her temple, sat down on the moss to consider the question of sacrifices.

To kill animals, or even insects, in order to please him, appeared to me barbarous and unworthy of his ideal kindliness. I persuaded myself to do just the opposite—that is, to restore life and liberty on his altar to all the creatures that I could procure.

Her offering included butterflies, lizards, little green frogs, and birds. These she would put into a box, lay it on the altar, and then open it, 'after having invoked the good genius of liberty and protection'.

In these mimic rites, hardly removed from genuine childish play, the doubt-agitated girl found repose: 'I had then delicious reveries, and while seeking the marvellous, which had for me so great an attraction, I began to find the vague idea and the pure feeling of a religion according to my heart'.

But the sweet sanctuary did not long remain inviolate. One day her boy playmate came to look for her, and tracked her to her secret grove. He was awe-struck at the sight, and exclaimed: 'Ah, miss, the pretty little altar of the *Fête-Dieu!*' He was for embellishing it still further, but she felt the charm was destroyed.

> From the instant that other feet than mine had trodden his sanctuary, Corambé ceased to dwell in it. The dryads and the cherubim deserted it, and it seemed to me as if my ceremonies and my sacrifices were from this time only childishness, that I had not in truth been in earnest. I destroyed the temple with as much care as I had built it; I dug a hole at the foot of the tree, where I buried the garlands, the shells, and all the rustic ornaments, under the ruins of the altar.

This story of Aurore's religious experiment cannot fail to remind the reader of biography of the child Goethe's well-known essays in the same direction. The boy's mind, it will be remembered, had been greatly exercised with the religious problem, first of all under the impression of horror caused by the earthquake at Lisbon, and later from having to listen to accounts of the new sects—Separatists, Moravians, and the rest—who sought a closer communion with the deity than was possible through the somewhat cold ritual of the established religion. Stirred by their example, he tried also to realise a closer approach to the Divine Being. He conceived him, he tells us, as standing in immediate connexion with Nature. So he invented a form of worship in which natural products were to represent the world, and a flame burning over these to symbolise the aspirations of man's heart. A handsome

pyramid-shaped music-stand was chosen for altar, and on the shelves of this the successive stages in the evolution of Nature were to be indicated. The rite was to be carried out at sunrise, the altar-flame to be secured by means of fumigating pastils and a burning-glass. The first performance was a success, but in trying to repeat it the boy-priest omitted to put the pastils into a cup, so the lacquered stand, with its beautiful gold flowers, was disastrously burnt—a *contretemps* which took away all spirit for new offerings.

In comparing these two instances of childish worship, one is struck perhaps more by their contrast than by their similarity. Each of the two incidents illustrates, no doubt, a true childish aspiration towards the great Unseen, and also an impulse to invent a form of worship which should harmonise with and express the little worshipper's individual thoughts. But here the resemblance ceases. The boy-priest felt, apparently, nothing of the human side of religion: he was the true precursor of Goethe, the large-eyed man of science and the poet of pantheism, and found his delight in symbolising the orderliness of Nature's work as a whole, and its Divine purpose and control. Aurore Dupin, on the other hand, approached religion on the human and emotional side, the side which seems more appropriate to her sex. She thought of her deity as intently occupied with humanity and its humble kinsfolk in the sentient world; and she endowed him above all other qualities with generosity and pitifulness, even to excess. Goethe seems to represent the speculative, Aurore the humanitarian, element in the religious impulse of the child.

To follow Aurore into her later religious experiences in the 'Couvent des Anglaises' would be clearly to go beyond the limits of these studies of childhood. I hope I may have quoted enough from the first chapters of the autobiography to illustrate not only their deep human and literary interest, but their special value to the psychological student.

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