

## **Hereditary traits.**

### **Contributors**

Royal College of Surgeons of England

### **Publication/Creation**

[Place of publication not identified] : [Cornhill Magazine], 1878.

### **Persistent URL**

<https://wellcomecollection.org/works/e6rdbhx2>

### **Provider**

Royal College of Surgeons

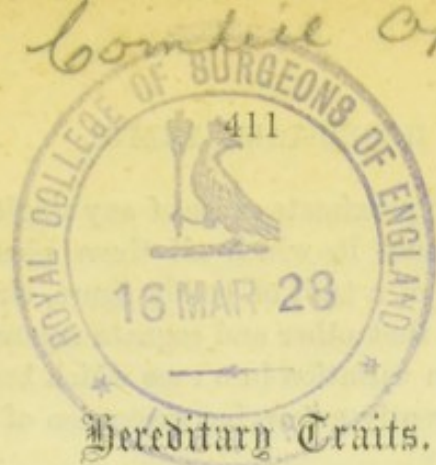
### **License and attribution**

This material has been provided by This material has been provided by The Royal College of Surgeons of England. The original may be consulted at The Royal College of Surgeons of England. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>



(2)  
11

IN Montaigne's well-known essay on the *Resemblance of Children to their Fathers*, the philosopher of Périgord remarks that "there is a certain sort of crafty humility that springs from presumption; as this, for example, that we confess our ignorance in many things, and are so courteous as to acknowledge that there are in works of nature some qualities and conditions that are imperceptible to us, and of which our understanding cannot discern the means and causes; by which honest declaration we hope to obtain that people shall also believe us of those that we say we do understand." "We need not trouble ourselves," he goes on, "to seek out miracles and strange difficulties; methinks there are such incomprehensible wonders amongst the things that we ordinarily see as surpass all difficulties of miracles." He applies these remarks to inherited peculiarities of feature, figure, character, constitution, habits, and so forth. And certainly few of the phenomena of nature are more wonderful than these, in the sense of being less obviously referable to any cause which seems competent to produce them. Many of those natural phenomena which are regarded as most striking are in this respect not to be compared with the known phenomena of heredity. The motions of the planets can all be referred to regular laws; chemical changes are systematic, and their sequence at least is understood; the phenomena of heat, light, and electricity are gradually finding interpretation. It is true that all these phenomena become in a sense as miracles when we endeavour to ascertain their real cause. In their case we can ascertain the "how," but in no sense the "why." Gravity is a mystery of mysteries to the astronomer, and has almost compelled us to believe in that "action at a distance" which Newton asserted to be unimaginable by anyone with a competent power of reasoning about things philosophical. The ultimate cause of chemical changes is as great a mystery now as it was when the four elements were believed in. And the nature of the ether itself in which the undulations of heat, light, and electricity are transmitted is utterly mysterious even to those students of science who have been most successful in determining the laws according to which those undulations proceed. But the phenomena themselves being at once referable (in our own time at least) to law, have no longer the mysterious and in a sense miraculous character recognised in them before the laws of motion, of chemical affinity, of light and heat and electricity, had been ascertained. It is quite otherwise with the phenomena of heredity. We

know nothing even of the proximate cause of any single phenomenon ; far less of that ultimate cause in which all these phenomena had their origin. The inheritance of a trait of bodily figure, character, or manner is a mystery as great as that other and cognate mystery, the appearance of some seemingly sudden variation in a race which has for many generations presented an apparently unvarying succession of attributes, bodily, physical, or mental.

It need hardly be said that this would not be the place for the discussion of the problems of heredity and variation, even if in the present position of science we could hope for any profitable result from the investigation of either subject. But some of the curious facts which have been noted by various students of heredity will, we think, be found interesting ; and though not suggesting in the remotest degree any solution of the real difficulties of the subject, they may afford some indication of the laws according to which parental traits are inherited, or seemingly sudden variations introduced.

The commonest, and therefore the least interesting, though perhaps the most instructive of the phenomena of heredity, are those affecting the features and the outward configuration of the body. These have been recognised in all ages, and among all nations. A portion of the Jewish system of legislature was based on a recognition of the law that children inherit the bodily qualities of the parents. The Greeks noted the same fact. Among the Spartans, indeed, a system of selection from among new-born children prevailed, which, though probably intended only to eliminate the weaker individuals, corresponded closely to what would be done by a nation having full belief in the efficacy of both natural and artificial selection, and not troubled with any strong scruples as to the method of applying their doctrines on such matters. Among the Romans we find certain families described by their physical characteristics, as the *Nasones* or Big-nosed, the *Labeones* or Thick-lipped, the *Capitones* or Big-headed, the *Buccones* or Swollen-cheeked. In more recent times similar traits have been recognised in various families. The Austrian lip and the Bourbon nose are well-known instances.\*

Peculiarities of structure have a double interest, as illustrating both variation and persistence. We usually find them introduced without any apparent cause into a family, and afterwards they remain as hereditary traits, first inherited regularly, then intermittently, and eventually, in most cases, dying out or becoming so exceptional that their occurrence is not regarded as an hereditary peculiarity. Montaigne mentions that in the family of Lepidus, at Rome, there were three, not successively but by intervals, that were born with the same eye covered with a cartilage. At Thebes there was a family almost every member of which had the crown of the head pointed like a lance-head, all whose

---

\* It is said by Ribot that of all the features the nose is the one which heredity preserves best.

heads were not so formed being regarded as illegitimate. A better authenticated case is that of the Lambert family. The peculiarity affecting this family appeared first in the person of Edward Lambert, whose whole body, except the face, the palms of the hands, and the soles of the feet, was covered with a sort of shell consisting of horny excrescences. He was the father of six children, all of whom, so soon as they had reached the age of six weeks, presented the same peculiarity. Only one of them lived. He married, and transmitted the peculiarity to all his sons. For five generations all the male members of the Lambert family were distinguished by the horny excrescences which had adorned the body of Edward Lambert.

A remarkable instance of the transmission of anomalous characteristics is found in the case of Andrian Jeftichjew, who, three or four years ago, was exhibited with his son Fedor Jeftichjew in Berlin and Paris. They were called in Paris *les hommes-chiens*, or dog-men, the father's face being so covered with hair as to present a striking resemblance to the face of a Skye terrier. Andrian was thus described:—"He is about fifty-five years of age, and is said to be the son of a Russian soldier. In order to escape the derision and the unkind usage of his fellow-villagers, Andrian in early life fled to the woods, where, for some time, he lived in a cave.

During this period of seclusion he was much given to drunkenness. His mental condition does not seem to have suffered, however, and he is on the whole of a kindly and affectionate disposition. It may be of interest to state that he is an orthodox member of the Russo-Greek Church, and that, degraded as he is intellectually, he has very definite notions about heaven and the hereafter. He hopes to introduce his frightful countenance into the court of heaven, and he devotes all the money he makes, over and above his outlay for creature comforts, to purchasing the prayers of a devout community of monks in his native village, Kostroma, after his mortal career is ended. He is of medium stature, but very strongly built. His excessive capillary development is not true hair, but simply an abnormal growth of the *down* or fine hairs which usually cover nearly the entire surface of the human body. Strictly speaking, he has neither head-hair, beard, moustache, eyebrows, nor eyelashes, their place being taken by this singular growth of long silky down. In colour this is of a dirty yellow; it is about three inches in length all over the face, and feels like the hair of a Newfoundland dog. The very eyelids are covered with this long hair, while flowing locks come out of his nostrils and ears. On his body are isolated patches, strewed but not thickly with hairs one and a half to two inches long." Dr. Bertillon, of Paris, compared a hair from Andrian's chin with a very fine hair from a man's beard, and found that the latter was three times as thick as the former; and a hair from Andrian's head is only one-half as thick as an average human hair. Professor Virchow, of Berlin, made careful inquiry into the family history of Andrian Jeftich-

jew. So far as could be learned, Andrian was the first in whom this wonderful hirsuteness had been noticed. Neither his reputed father nor his mother presented any peculiarity of the kind, and a brother and sister of his, who are still living, are in no way remarkable for capillary development. The son Fedor, who was exhibited in company with Andrian, was illegitimate, and about three years of age. Andrian's legitimate children, a son and a daughter, both died young. Nothing is known of the former; but the daughter resembled the father. "Fedor is a sprightly child," said the account from which we have already quoted, "and appears more intelligent than the father. The growth of down on his face is not so heavy as to conceal his features, but there is no doubt that when the child comes to maturity he will be at least as hirsute as his parent. The hairs are as white and as soft as the fur of the Angora cat, and are longest at the outer angles of the eyes. There is a thick tuft between the eyes, and the nose is well covered. The moustache joins the whiskers on each side, after the English fashion, and this circumstance gives to accurate pictures of the child a ludicrous resemblance to a well-fed Englishman of about fifty. As in the father's case, the inside of Fedor's nostrils and ears has a thick crop of hair." "Both father and son are almost toothless, Andrian having only five teeth, one in the upper jaw and four in the lower, while the child has only four teeth, all in the lower jaw. In both cases the four lower teeth are all incisors. To the right of Andrian's one upper tooth there still remains the mark of another which has disappeared. That beyond these six teeth the man never had any others is evident to anyone who feels the gums with the finger."

The deficiency of teeth, accompanied as it is by what is in reality a deficiency not a redundancy of hair—for Andrian and his son have no real hair—accords well with Darwin's view, that a constant correlation exists between hair and teeth. He mentions as an illustration the deficiency of teeth in hairless dogs. The tusks of the boar, again, are greatly reduced under domestication, and the reduction is accompanied by a corresponding diminution of the bristles. He mentions also the case of Julia Pastrana, a Spanish dancer or opera singer, who had a thick masculine beard and a hairy forehead, while her teeth were so redundant that her mouth projected, and her face had a gorilla-like appearance. It should rather be said that in general those creatures which present an abnormal development in the covering of their skin, whether in the way of redundancy or deficiency, present generally, perhaps always, an abnormal dental development, as we see in sloths and armadilloes on the one hand, which have the front teeth deficient, and in some branches of the whale family on the other, in which the teeth are redundant either in number or in size. In individual members of the human family it certainly is not always the case that the development of the hair and that of the teeth are directly correlated; for some who are bald when quite young have excellent teeth, and some who have lost most of their

teeth while still on the right side of forty have excellent hair to an advanced age.\*

Another case, somewhat similar to that of Andrian and his son, is found in a Burmese family, living at Ava, and first described by Crawford in 1829. Shwe-Maong, the head of the family, was about thirty years old. His whole body was covered with silky hairs, which attained a length of nearly five inches on the shoulders and spine. He had four daughters, but only one of them resembled him. She was living at Ava in 1855, and, according to the account given by a British officer who saw her there, she had a son who was hairy like his grandfather, Shwe-Maong. The case of this family illustrates rather curiously the relation between the hair and teeth. For Shwe-Maong retained his milk-teeth till he was twenty years old (when he attained puberty), and they were replaced by nine teeth only, five in the upper and four in the lower jaw. Eight of these were incisors, the ninth (in the upper jaw) being a canine tooth.

Sex-digitism, or the possession of hands and feet with six digits each, has occurred in several families as a sudden variation from the normal formation, but after it has appeared has usually been transmitted for several generations. In the case of the Colburn family this peculiarity lasted for four generations without interruption, and still reappears occasionally. In a branch of a well-known Scotch family, sex-digitism—after continuing for three or four generations—has apparently disappeared; but it still frequently happens that the edge of the hands on the side of the little finger is partially deformed.

Hare-lip, albinism, halting, and other peculiarities, commonly reappear for four or five generations, and are seldom altogether eradicated in less than ten or twelve.

The tendency to variation shown in the introduction of these peculiarities, even though they may have been eventually eradicated, is worth noticing in its bearing on our views respecting the formation of new and persistent varieties of the human as of other races. It must be noticed that in the case of the human race the conditions not only do not favour the continuance of such varieties, but practically forbid their persistence. It is otherwise with some varieties, at least, of domestic animals, inasmuch that varieties which present any noteworthy even though accidentally observed advantage have been made practically persistent; we say practically, because there seems little reason to doubt that in every case which has hitherto been observed the normal type would eventually be

---

\* Shakspeare, who was bald young (and, so far as one can judge from his portraits, had a good set of teeth), suggests a correlation between hairiness and want of wit, which is at least likely to be regarded by those who "wear his baldness while they're young" as a sound theory. "Why," asks Antipholus of Syracuse, "is Time such a niggard of hair, being, as it is, so plentiful an excrement?" "Because," says Dromio of Syracuse, "it is a blessing that he bestows on beasts; and what he hath scantied men in hair he hath given them in wit."

reverted to if special pains were not taken to separate the normal from the abnormal form.

An excellent illustration of the difference between the human race and a race of animals under domestication, in this particular respect, is found in the case of the Kelleia family on the one hand, and that of the Ancon or Otter sheep on the other.

The former case is described by Réaumur. A Maltese couple named Kelleia, whose hands and feet were of the ordinary type, had a son Gratio who had six movable fingers on each hand and six somewhat less perfect toes on each foot. Gratio Kelleia married a woman possessing only the ordinary number of fingers and toes. There were four children of this marriage—Salvator, George, André, and Marie. Salvator had six fingers and six toes like the father; George and André had each five fingers and five toes like the mother, but the hands and feet of George were slightly deformed; Marie had five fingers and five toes, but her thumbs were slightly deformed. All four children grew up, and married folk with the ordinary number of fingers and toes. The children of André alone (who were many) were without exception of the normal type, like their father. The children of Salvator, who alone was six-fingered and six-toed like Gratio the grandfather, were four in number; three of them resembled the father, while the other—the youngest—was of the normal type like his mother and grandmother. As these four children were the descendants of four grandparents of whom one only was hexadactylic, we see that the variety had been strong enough in their case to overcome the normal type in threefold greater strength. But the strangest part of the story is that relating to George and Marie. George, who was a pentadactyle, though somewhat deformed about the hands and feet, was the father of four children: first two girls, both purely hexadactylic; next a girl, hexadactylic on the right side of the body and pentadactylic on the left side; and lastly a boy, purely pentadactylic. Marie, a pentadactyle with deformed thumbs, gave birth to a boy with six toes, and three normally formed children. It will be seen, however, that the normal type showed itself in greater force than the variety in the third generation from Gratio; for while one child of Salvator's, one of George's, three of Marie's, and all of André's (some seven or eight) were of the normal type—twelve or thirteen in all—only five, viz. three of Salvator's and two of George's, presented the variety purely. Three others were more or less abnormally formed in fingers and toes; but even counting these, the influence of the variety was shown only in eight of the grandchildren of Gratio, whereas twelve or thirteen were of the normal type.

The story of the Ancon or Otter sheep, as narrated by Colonel David Humphreys in a letter to Sir Joseph Banks published in the *Philosophical Transactions* for 1813, has been thus abridged by Huxley:—"It appears that one Seth Wright, the proprietor of a farm on the banks of the Charles River, in Massachusetts, possessed a flock of fifteen ewes and a ram of the ordinary kind. In the year 1791 one of the ewes presented

her owner with a male lamb differing, for no assignable reason, from its parents by a disproportionately long body and short bandy legs; whence it was unable to emulate its relatives in those sportive leaps over the neighbours' fences in which they were in the habit of indulging, much to the good farmer's vexation. With the 'cuteness' characteristic of their nation, the neighbours of the Massachusetts farmer imagined it would be an excellent thing if all his sheep were imbued with the stay-at-home tendencies enforced by Nature upon the newly-arrived ram; and they advised Wright to kill the old patriarch of his fold and instal the new Ancon ram in his place. The result justified their sagacious anticipations. . . . The young lambs were almost always either pure Ancons or pure ordinary sheep. But when sufficient Ancon sheep were obtained to interbreed with one another, it was found that the offspring were always pure Ancon. Colonel Humphreys, in fact, states that he was acquainted with only 'one questionable case of a contrary nature.' By taking care to select Ancons of both sexes for breeding from, it thus became easy to establish an exceedingly well-marked race—so peculiar that even when herded with other sheep, it was noted that the Ancons kept together. And there is every reason to believe that the existence of this breed might have been indefinitely protracted; but the introduction of the Merino sheep—which were not only very superior to the Ancons in wool and meat, but quite as quiet and orderly—led to the complete neglect of the new breed, so that in 1813 Colonel Humphreys found it difficult to obtain the specimen whose skeleton was presented to Sir Joseph Banks. We believe that for many years no remnant of it has existed in the United States."

It is easy, as Huxley remarks, to understand why, whereas Gratio Kelleia did not become the ancestor of a race of six-fingered and six-toed men, Seth Wright's Ancon ram became a nation of long-bodied short-legged sheep. If the purely hexadactylic descendants of Gratio Kelleia, and all the purely hexadactylic members of the Colburn family, in the third and fourth generations, had migrated to some desert island, and had been careful not only to exclude all visitors having the normal number of fingers and toes, but to send away before the age of puberty all children of their own which might depart in any degree from the pure hexadactylic type, there can be no doubt that under favourable conditions the colony would have become a nation of six-fingered folk. Among such a nation the duodecimal system of notation would flourish, and some remarkable performers on the pianoforte, flute, and other instruments, might be looked for; but we do not know that they would possess any other advantage over their pentadactylic contemporaries. Seeing that the system of colonising above described is antecedently unlikely, and that no special advantage could be derived from the persistence of any hitherto known abnormal variety of the human race, it is unlikely that for many generations yet to come we shall hear of six-fingered, hairy-faced, horny-skinned, or hare-lipped nations. The only peculiarities



which have any chance of becoming permanent are such as, while not very uncommon, stand in the way of intermarriage with persons not similarly affected. A similar remark, as will presently appear, applies to mental and moral characteristics. The law according to which contrast is found attractive and similitude repugnant, though wide in its range, is not universal; and there are cases in which resemblance, if it has not the charm found (under ordinary circumstances) in contrast, is yet a necessary element in matrimonial alliances.

The inheritance of constitutional traits comes next to be considered. It is probably not less frequently observed, and is in several respects more interesting than the inheritance of peculiarities of bodily configuration.

Longevity, which may be regarded as measuring the aggregate constitutional energy, is well known to be hereditary in certain families, as is short duration of life in other families. The best proof that this is the case is found in the action of insurance companies, in ascertaining through their agents the longevity of the ancestors of persons proposing to insure their lives. Instances of longevity during several successive generations are too common to be worth citing. Cases in which, for generation after generation, a certain age, far short of the threescore years and ten, has not been passed, even when all the circumstances have favoured longevity, are more interesting. One of the most curious among these is the case of the Turgot family, in which the age of fifty-nine had not been for generations exceeded, to the time when Turgot made the name famous. At the age of fifty, when he was in excellent health, and apparently had promise of many years of life, he expressed to his friends his conviction that the end of his life was near at hand. From that time forward he held himself prepared for death, and, as we know, he died before he had completed his fifty-fourth year.

Fecundity is associated sometimes with longevity, but in other cases as significantly associated with short duration of life. Of families in which many children are born but few survive, we naturally have less striking evidence than we have of families in which many children of strong constitutions are born for several successive generations. What may be called the fecundity of the short-lived is a quality commonly leading in no long time to the disappearance of the family in which it makes its appearance. It is the reverse, of course, with fecundity in families whose members show individually great vigour of constitution and high vital power. Ribot mentions several cases of this sort among the families of the old French *noblesse*. Thus Anne de Montmorency—who, despite his feminine name, was certainly by no means feminine in character—at the battle of St. Denis, in his sixty-sixth year, he smashed with his sword the teeth of the Scotch soldier who was giving him his death blow—was the father of twelve children. Three of his ancestors, Matthew I., Matthew II., and Matthew III., had in all eighteen children, of whom fifteen were boys. “The son and grandson of the great Condé

had nineteen between them, and their great-grandfather, who lost his life at Jarnac, had ten. The first four Guises reckoned in all forty-three children, of whom thirty were boys. Achille de Harley had nine children, his father ten, and his great-grandfather eighteen." In the family of the Herschels in Hanover and in England, a similar fecundity has been shown in two generations out of three. Sir W. Herschel was one of a family of twelve children, of whom five were sons. He himself did not marry till his fiftieth year, and had only one son. But Sir John Herschel was the father of eleven children.

Of constitutional peculiarities those affecting the nervous system are most frequently transmitted. We do not, however, consider them at this point, because they are viewed ordinarily rather as they relate to mental and moral characteristics than as affections of the body. The bodily affections most commonly transmitted are those depending on what is called diathesis—a general state or disposition of the constitution predisposing to some special disease. Such are scrofula, cancer, tubercular consumption, gout, arthritis, and some diseases specially affecting the skin. This would not be the place for a discussion of this particular part of our subject, interesting though it undoubtedly is. But it may be worth while to note that we have, in the variety of forms in which the same constitutional bad quality may present itself, evidence that what is actually transmitted is not a peculiarity affecting a particular organ, even though in several successive generations the disease may show itself in the same part of the body, but an affection of the constitution generally. We have here an answer to the question asked by Montaigne in the essay from which we have already quoted. The essay was written soon after he had, for the first time, experienced the pangs of renal calculus:—"Tis to be believed," he says, "that I derived this infirmity from my father, for he died wonderfully tormented" with it; he was "never sensible of his disease till the sixty-seventh year of his age, and before that had never felt any grudging or symptom of it" . . . "but lived till then in a happy vigorous state of health, little subject to infirmities, and continued seven years after in this disease, and dyed a very painful death. I was born about twenty-five years before his disease seized him, and in the time of his most flourishing and healthful state of body, his third child in order of birth: where could his propension to this malady lie lurking all that while? And he being so far from the infirmity, how could that small part of his substance carry away so great an impression of its share? And how so concealed that, till five-and-forty years after, I did not begin to be sensible of it? being the only one to this hour, amongst so many brothers and sisters, and all of one mother, that was ever troubled with it. He that can satisfie me in this point, I will believe him in as many other miracles as he pleases, always provided that, as their manner is, he does not give me a doctrine much more intricate and fantastic than the thing itself, for current pay." When we note, however, that in many cases the children of persons

affected like the elder Montaigne are not affected like the parents, but with other infirmities, as the tendency to gout, and *vice versa* (a circumstance of which the writer of these lines has but too good reason to be cognisant, a parent's tendency to gout having in his case been transmitted in the modified but even more troublesome form of the disease which occasioned Montaigne so much anguish), we perceive that it is not "some small part of the substance" which transmits its condition to the child, but the general state of the constitution. Moreover, it may be hoped in many cases (which would scarcely be the case if the condition or qualities of some part of the body only were transmitted) that the germs of disease, or rather the predisposition to disease, may be greatly diminished, or even entirely eradicated, by suitable precautions. Thus persons inheriting a tendency to consumption have become, in many cases, vigorous and healthy by passing as much of their time as possible in the open air, by avoiding crowded and over-heated rooms, taking moderate but regular exercise, judicious diet, and so forth. We believe that the disease which troubled the last fifteen years of the life of Montaigne might readily have been prevented, and the tendency to it eradicated, during his youth.

Let us turn, however, from these considerations to others more interesting, though less important, and on the whole better suited to these pages.

The inheritance of tricks of habit is one of the most perplexing of all the phenomena of heredity. The less striking the habit, the more remarkable, perhaps, is its persistence as an inherited trait. Giron de Buzareingues states that he knew a man who, when he lay on his back, was wont to throw his right leg across the left; one of this person's daughters had the same habit from her birth, constantly assuming that position in the cradle, notwithstanding the resistance offered by the swaddling bands.\* Darwin mentions another case in his *Variation of*

---

\* While penning the above lines the writer has been reminded of an experience of his own, which he had never before thought of, connected with the subject of heredity; yet it seems not unlikely that it may be regarded as a case in point. During the infancy of his eldest son, it so chanced that the question of rest at night, and consequently the question of finding some convenient way of keeping the child quiet, became one of considerable interest to him. Cradle-rocking was effective, but carried on in the usual way prevented his own sleep, though causing the child to sleep. He devised, however, a way of rocking the cradle with the foot, which could be carried on in his sleep, after a few nights' practice. Now it is an odd coincidence (only, perhaps) that the writer's next child, a girl, had while still an infant a trick which we have noticed in no other case. She would rock herself in the cradle by throwing the right leg over the left at regular intervals, the swing of the cradle being steadily kept up for many minutes, and being quite as wide in range as a nurse could have given. It was often continued when the child was asleep.

Since writing the above, the writer has learned from his eldest daughter, the girl who as a child had the habit described, that a recent little brother of hers, one of twins, and remarkably like her, has the same habit, rocking his own cradle so vigor-

*Animals and Plants under Domestication*:—A child had the odd habit of setting its fingers in rapid motion whenever it was particularly pleased with anything. When greatly excited, the same child would raise the hand on both sides as high as the eyes, with the fingers in rapid motion as before. Even in old age he experienced a difficulty in refraining from these gestures. He had eight children, one of whom, a little girl, when four years of age, used to set her fingers going, and to lift up her hands after the manner of her father. A still more remarkable case is described by Galton. A gentleman's wife noticed that when he lay fast asleep on his back in bed he had the curious trick of raising his right arm slowly in front of his face, up to his forehead, and then dropping it with a jerk, so that the wrist fell heavily on the bridge of his nose. The trick did not occur every night, but occasionally, and was independent of any ascertained cause. Sometimes it was repeated incessantly for an hour or more. The gentleman's nose was prominent, and its bridge often became sore from blows which it received. At one time an awkward sore was produced that was long in healing, on account of the recurrence, night after night, of the blows which first caused it. His wife had to remove the button from the wrist of his night-gown, as it made severe scratches, and some means were attempted of tying his arm. Many years after his death his son married a lady who had never heard of the family incident. She, however, observed precisely the same peculiarity in her husband; but his nose, from not being particularly prominent, has never as yet suffered from the blows. The trick does not occur when he is half asleep, as, for example, when he is dozing in his arm-chair; but the moment he is fast asleep, he is apt to begin. It is, as with his father, intermittent; sometimes ceasing for many nights, and sometimes almost incessant during a part of every night. It is performed, as it was with his father, with his right hand. One of his children, a girl, has inherited the same trick. She performs it, likewise, with the right hand, but in a slightly modified form; for after raising the arm, she does not allow the wrist to drop upon the bridge of the nose, but the palm of the half-closed hand falls over and down the nose, striking it rather rapidly—a decided improvement on the father's and grandfather's idea. The trick is intermittent in this girl's case also, sometimes not occurring for periods of some months, but sometimes almost incessantly.

Strength in particular limbs or muscles is often transmitted hereditarily. So also is skill in special exercises. Thus in the north country there are families of famous wrestlers. Among professional oarsmen, again, we may note such cases as the Clasper family in the north, the Mackinneys in the south; while among amateur oarsmen we have the

---

ously as to disturb her sleeping in the next room with the noise. These two only of twelve children have had this curious habit; but as he is thirteen years younger than she is, the force of the coincidence in point of time is to some degree impaired.

case of the Playford family, to which the present amateur champion sculler belongs. In cricket, the Walker family and the Grace family may be cited among amateurs, the Humphreys among professional players. Grace in dancing was transmitted for three generations in the Vestris family. It must, however, be noted that in some of these cases we may fairly consider that example and teaching have had much to do with the result. Take rowing for instance. A good oarsman will impart his style to a whole crew if he rows stroke for them; and even if he only trains them (as Morrison, for instance, trained the Cambridge crew a few years ago), he will make good oarsmen of men suitably framed and possessing ordinary aptitude for rowing. We remember well how a famous stroke-oar at Cambridge imparted to one at least of the University crew (a fellow-collegian of his, and therefore rowing with him constantly also in his College boat) so exact an imitation of his style that one rather dusky evening, when the latter was "stroking" a scratch four past a throng of University men, a dispute arose as to which of the two was really stroke of the four. Anyone who knows how characteristic commonly is the rowing of any first-class stroke, and still more anyone who chances to know how peculiar was the style of the University "stroke-oar" referred to, will understand how closely his style must have been adopted, when experienced oarsmen, not many yards from the passing four, were unable to decide at once which of the two men were rowing,—even though the evening was dusky enough to prevent the features of the stroke (whose face was not fully in view at the moment) from being discerned. Seeing that a first-rate oarsman can thus communicate his style so perfectly to another, it cannot be regarded as demonstrably a case of hereditary transmission if the Claspers rowed in the same style as their father, or if the present champion sculler (making allowances for the change introduced by the sliding seat) rows very much like his father and his uncle.

Some peculiarities, such as stammering, lispings, babbling, and the like, are not easily referable to any special class of hereditary traits, because it is not clear how far they are to be regarded as depending on bodily or how far on mental peculiarities. It might seem obvious that stammering was in most cases uncontrollable by the will, and babbling might seem as certainly controllable. Yet there are cases which throw doubt on either conclusion. Thus, Dr. Lucas tells us of a servant-maid whose loquacity was apparently quite uncontrollable. She would talk to people till they were ready to faint; and if there were no human being to listen to her, she would talk to animals and inanimate objects, or would talk aloud to herself. She had to be discharged. "But," she said to her master, "I am not to blame; it all comes from my father. He had the same fault, and it drove my mother to distraction; and his father was just the same." Stammering has been transmitted through as many as five generations. The same has been noticed of peculiarities of vision. The Montmorency look, a sort of half squint, affected nearly

all the members of the Montmorency family. The peculiarity called Daltonism, an inability to distinguish between certain colours of the spectrum, was not so named, as is often asserted, merely because the distinguished chemist Dalton was affected by it, but because three members of the same family were similarly affected. Deafness and blindness are not commonly hereditary where the parents have lost sight or hearing either by accident or through illness, even though the illness or accident occur during infancy; but persons born either blind or deaf frequently if not commonly transmit the defect to some at least among their offspring. Similar remarks apply to deaf-muteness.

The senses of taste and smell must also be included in the list of those which are affected by transmitted peculiarities. If we include the craving for liquor among such peculiarities, we might at once cite a long list of cases; but this craving must be regarded as nervo-psychical, the sense of taste having in reality very little to do with it. It is doubtful how the following hideous instance should be classed. It is related by Dr. Lucas. "A man in Scotland had an irresistible desire to eat human flesh. He had a daughter. Although removed from her father and mother, who were both sent to the stake before she was a year old, and although brought up among respectable people, this girl, like her father, yielded to the horrible craving for human flesh." He must be an ardent student of physiological science who regrets that at this stage circumstances intervened which prevented the world from ascertaining whether the peculiarity would have descended to the third and fourth generations.

Amongst the strangest cases of hereditary transmission are those relating to handwriting. Darwin cites several curious instances in his *Variation of Plants and Animals under Domestication*. "On what a curious combination of corporeal structure, mental character, and training," he remarks, "must handwriting depend. Yet everyone must have noted the occasional close similarity of the handwriting in father and son, even although the father had not taught the son. A great collector of franks assured me that in his collection there were several franks of father and son hardly distinguishable except by their dates." Hofacker, in Germany, remarks on the inheritance of handwriting; and it has been even asserted that English boys, when taught to write in France, naturally cling to their English manner of writing. Dr. Carpenter mentions the following instance as having occurred in his own family, as showing that the character of the handwriting is independent of the special teaching which the right hand receives in this art:—"A gentleman who emigrated to the United States, and settled in the backwoods, before the end of last century, was accustomed from time to time to write long letters to his sister in England, giving an account of his family affairs. Having lost his right arm by an accident, the correspondence was temporarily kept up by one or other of his children; but in the course of a few months he learned to write with his left hand, and,

before long, the handwriting of the letters thus written came to be indistinguishable from that of his former letters."

We had occasion, two or three years ago, to consider in these pages, in an article on "Strange Mental Feats," the question of inherited mental qualities and artistic habits, and would refer the reader for some remarkable instances of transmitted powers to that article.\* Galton, in his work on *Hereditary Genius*, and Ribot, in his treatise on *Heredity*, have collected many facts bearing on this interesting question. Both writers show a decided bias in favour of a view which would give to heredity a rather too important position among the factors of genius. Cases are cited which seem very little to the purpose, and multitudes of instances are omitted which oppose themselves, at a first view at any rate, to the belief that heredity plays the first part in the genesis of great minds. Nearly all the greatest names in philosophy, literature, and science, and a great number of the greatest names in art, stand absolutely alone. We know nothing achieved by Shakspeare's father or grandfather, or by Goethe's, or Schiller's. None of Newton's family were in any way distinguished in mathematical or scientific work; nor do we know of a distinguished Laplace, or Lagrange, or Lavoisier, or Harvey, or Dalton, or Volta, or Faraday, besides those who made these names illustrious. As to general literature, page after page might be filled with the mere names of those whose ancestry has been quite undistinguished. To say that among the ancestors of Goethe, Schiller, Byron, and so forth, certain qualities—virtues or vices, passions or insensibilities to passion—may be recognised, "among the ancestors of men of science certain aptitudes for special subjects or methods of research," among the ancestors of philosophers and literary men certain qualities or capabilities, and that such ancestral peculiarities determined the poetic, scientific, or literary genius of the descendant, is in reality to little purpose, for there is probably not a single family possessing claims to culture in any civilised country, among the members of which individuals might not be found with qualities thus emphasised, so to speak. Such *à posteriori* reasoning is valueless. If instances could be so classified that after carefully studying them we could make even the roughest approach to a guess respecting the cases in which a family might be expected to produce men of any particular qualities, there would be some use in these attempts at generalisation. At present all that can be said is that some mental qualities and some artistic aptitudes have unquestionably in certain instances been transmitted, and that on the whole men of great distinction in philosophy, literature, science, and art, are rather more likely than others to have among their relations (more or less remote) persons somewhat above the average in mental or artistic qualities. But it is not altogether certain that this superiority is even quite so great as it might be expected to be if hereditary transmission played no part at all in the

---

\* See CORNHILL MAGAZINE for August, 1875.

matter. For it cannot be denied that a great mathematician's son has rather a better chance than others of being a mathematician, a great author's son of being a writer, a great artist's son of being skilful in art, a great philosopher's son of taking philosophic views of things. Nearly every son looks forward while still young to the time when he shall be doing his father's work; nearly every father hopes while his children are yet young that some at least among them will take up his work. The fact that so few sons of great men do follow in their fathers' footsteps shows that, despite the strong ambition of the son, the anxious hope of the father, the son in the majority of instances has not had ability even to take a fairly good position in the work wherein the father has been perhaps pre-eminently distinguished.

We have said that certain mental qualities have certainly been transmitted in some cases. Galton mentions one noteworthy instance relating to memory. In the family of Porson good memory was so notable a faculty as to give rise to the byword, "the Porson memory." Lady Hester Stanhope, says the late F. Papillon, "she whose life was so full of adventure, gives, as one among many points of resemblance between herself and her grandfather, her retentive memory. 'I have my grandfather's grey eyes,' said she, 'and his memory of places. If he saw a stone on the road, he remembered it; it is the same with myself. His eye, which was ordinarily dull and lustreless, was lighted up, like my own, with a dull gleam whenever he was seized with passion.'"

In endeavouring to form an opinion on the law of heredity in its relation to genius, we must remember that a remark somewhat similar to one made by Huxley respecting the origin of new species applies to the origin of a man of genius. Before he became celebrated no one cared particularly to inquire about his ancestry or relations; when his fame was established, the time for making the inquiry had passed away. It is quite possible that, if we had exact and full information, in a great number of cases, we might find the position taken up by Mr. Galton and M. Ribot greatly strengthened; it is, however, also possible that we might find it much weakened, not only by the recognition of a multitude of cases in which the approach of a great man was in no sort indicated by scintillations of brightness along the genealogical track, but by a yet greater number of cases in which families containing numbers of clever, witty, and learned folks have produced none who attained real distinction.

There is an excellent remark in a thoughtful but anonymous paper on Heredity in the *Quarterly Journal of Science*, two years or so ago, which suggests some considerations well worth noting. "If we look," says the writer, "on the intellect as not a single force but a complex of faculties, we shall find little to perplex us in the phenomenon of spontaneity"—that is (in this case), in the appearance of a man of genius in a family not before remarkable in any way. "Suppose a family who have possessed some of the attributes of greatness, but who, in virtue of a prin-



ciple equally true in psychology and in mechanics, that 'nothing is stronger than its weakest part,' has remained in obscurity. Let a man of this family marry a woman whose faculties are the complement of his own. It is possible that a child of such a couple may combine the defects or weaknesses of both parents, and we have then the case of spontaneous imbecility or criminality. But it is also possible that he may combine the excellences of both, and burst upon the world as a spontaneous genius. . . . Again, we must remember that, even if we consider the intellect as 'one and indivisible,' it is far from being the only faculty needful for the attainment of excellence, even in the fields of pure science. Combined with it there must be the moral faculties of patience, perseverance, and concentration. The will must be strong enough to overcome all distracting temptations, whether in themselves good or evil. Lastly, there must be constitutional energy and endurance. Failing these, the man will merely leave among his friends the conviction that he might have achieved greatness, if—— We once knew a physician, resident in a small country town, who from time to time startled his associates by some profound and suggestive idea, some brilliant *aperçu*. But a constitutional languor prevented him from ever completing an investigation, or from leaving the world one written line."

The effect of circumstances also must not be overlooked. It is certain that some of those who stand highest in the world's repute would have done nothing to make their names remembered but for circumstances which either aided their efforts or compelled them to exertion; and it cannot be doubted, therefore, that many who have been by no means celebrated have required but favouring opportunities or the spur of adverse circumstances to have achieved distinction. We note the cases in which men who have been intended by their parents for the desk or routine work have fortunately been freed for nobler work, to which their powers have specially fitted them. But we are apt to forget that for each such case there must be many instances in which no fortunate chance has intervened. The theory that genius *will* make its way, despite all obstacles, is much like such popular notions as that "murder will out," and the like. We note when events happen which favour such notions, but we not only do not note—in the very nature of things it is impossible that we should have the chance of noting—cases unfavourable to a notion which, after all, is but a part of the general and altogether erroneous idea that what we think ought to be, will be. That among millions of men in a civilised community, trained under multitudinous conditions, for divers professions, trades, and so forth, exposed to many vicissitudes of fortune, good and bad, there should be men from time to time

Who break their birth's invidious bar,  
And grasp the skirts of happy chance,  
And breast the blows of circumstance,  
And grapple with their evil star

is no truer proof of the general theory that genius will make its mark, despite circumstance, than is the occasional occurrence of strange instances in which murder has been detected, despite seemingly perfect precaution.

It must, however, be in a general sense admitted that mental powers, like bodily powers, are inherited. If the ancestry of men of genius could be traced, we should in each case probably find enough, in the history of some line at least along which descent could be traced, to account for the possession of special powers, and enough in the history of that and other lines of descent to account for the other qualities or characteristics which, combined with those special powers, gave to the man's whole nature the capacity by which he was enabled to stand above the average level of his fellow-men. We might, with knowledge at once wider and deeper than we actually possess of the various families of each nation, and their relationships, predict in many cases, not that any given child would prove a genius, but that some one or other of a family would probably rise to distinction. To predict the advent of a man of great genius as we predict the approach of an eclipse or a transit, will doubtless never be in men's power; but it is conceivable that at some perhaps not very remote epoch, anticipations may be formed somewhat like those which astronomers are able to make respecting the recurrence of meteoric showers at particular times and seasons, and visible in particular regions. Already we know so much as this, that in certain races of men only can special forms of mental energy, like special bodily characteristics, be expected to appear. It may well be that hereafter such anticipations may be limited to special groups of families.

When we pass from mental to moral qualities, we find ourselves in the presence of problems which could not be thoroughly dealt with in these pages. The general question, how far the moral characteristics of each person born into the world depends on those of the parents, or more generally of the ancestry, is one involving many considerations which, perhaps unfortunately, have been associated with religious questions. And apart from this, the answers to this question have been found to have a very wide range—from the opinion of those who (like Miss Martineau) consider that our characters, even where they seem to undergo changes resulting from the exercise of will are entirely due to inheritance, to the view of those who consider, like Heinroth, that no moral characteristic can possibly be regarded as inherited in such sort as to modify either responsibility for evil-doing or credit for well-doing. Probably most will be content to accept a view between these extremes, without too nicely considering how far moral responsibility is affected by the influence of inherited tendencies.

There are, however, some illustrations relating to exceptional habits, which may be mentioned here, without bringing in the general question.

We have not referred to insanity in speaking of inherited mental qualities, because insanity must be regarded as a disease of the moral

rather than of the mental nature. Its origin may be in the mind, as the origin of mental diseases is in the brain, that is, in the body; but the principal manifestations of insanity, those which must guide us in determining its true position, are unquestionably those relating to moral habitudes. Insanity is not always, or at least not always demonstrably, hereditary. Esquirol found among 1,375 lunatics 337 unquestionable cases of hereditary transmission. Guislain and others regard hereditary lunacy as including, roughly, one-fourth of the cases of insanity. Moreau and others hold that the proportion is greater. It appears, however, that mental alienation is not the only form in which the insanity of an ancestor may manifest itself. Dr. Morel gives the following instructive illustration of the "varied and odd complications occurring in the hereditary transmission of nervous disease." He attended four brothers belonging to one family. The grandfather of these children had died insane; their father had never been able to continue long at anything; their uncle, a man of great intellect and a distinguished physician, was noted for his eccentricities. Now these four children, sprung from one stock, presented very different forms of physical disorder. One of them was a maniac, whose wild paroxysms occurred periodically. The disorder of the second was melancholy madness; he was reduced by his stupor to a merely automatic condition. The third was characterised by an extreme irascibility and suicidal disposition. The fourth manifested a strong liking for art; but he was of a timorous and suspicious nature. This story seems in some degree to give support to the theory that genius and mental aberration are not altogether alien; that, in fact,

Great wit to madness nearly is allied,  
And thin partitions do their bounds divide.

Of the hereditary transmission of idiocy we naturally have not the same kind of evidence. The madness often, if not generally, comes on or shows itself late in life, whereas idiocy is not often developed in the adult. Insanity is the diseased or weakened condition of a mind possessing all the ordinary thinking faculties; idiocy implies that some of these faculties are altogether wanting. It has been asserted, by the way, that idiocy is a product of civilisation. The civilised "present, as peoples," says Dr. Duncan, "indications of defective vital force, which are not witnessed among those human beings that live in a state of nature. There must be something rotten in some parts of our boasted civilisation; and not only a something which has to do with our psychology, but a great deal more with our power of physical persistence. It is a fact that the type of the perfect minded, just above the highest idiots, or the simpletons, is more distinguishable amongst the most civilised of the civilised than among those who are the so-called children of nature. Dolts, boobies, stupids, *et hoc genus omne*, abound in young Saxondom; but their representatives are rare amongst the tribes that are slowly disappearing before the white man." But it seems barely possible that the difference may be

due to the care with which civilised communities interfere to prevent the elimination of idiot infants by the summary process of destroying them. The writer from whom I have just quoted refers to the fact that, even under the Roman Empire, as during the Republic, idiots were looked upon as "useless entities by the practical Roman." They had no sanctity in his eyes, and hence their probable rarity; doubtless the unfortunate children were neglected, and there is much reason for believing that they were "exposed." "A congenital idiot soon begins to give trouble," proceeds Dr. Duncan, "and to excite unusual attention; and, moreover, unless extra care is given to it, death is sure to ensue in early childhood." May not idiot children in savage communities have an even worse chance of survival than under the Roman Empire? and may not dolts, boobies, and stupids, *et hoc genus omne*, among savages, have such inferior chances in the infantine and later in the adult struggle for existence, that we may explain thus the comparative rarity of these varieties in savage communities? It certainly does not seem to have been proved as yet that civilisation *per se* is favourable to the development of insanity.

The liking for strong drink, as is too well known, is often transmitted. It is remarked by Dr. Howe that "the children of drunkards are deficient in bodily and vital energy, and are predisposed by their very organisation to have cravings for alcoholic stimulants. If they pursue the course of their fathers, which they have more temptation to follow and less power to avoid than the children of the temperate, they add to their hereditary weakness, and increase the tendency to idiocy or insanity in their constitution; and this they leave to their children after them." Whatever opinion we may form on the general question of responsibility for offences of commission or of omission, on this special point all who are acquainted with the facts must agree, admitting that in some cases of inherited craving for alcoholic stimulants the responsibility of those who have failed and fallen in the struggle has been but small. "The fathers have eaten sour grapes, and the children's teeth are set on edge." Robert Collyer, of Chicago, in his noble sermon "The Thorn in the Flesh," has well said, "In the far-reaching influences that go to every life, and away backward as certainly as forward, children are sometimes born with appetites fatally strong in their nature. As they grow up, the appetite grows with them, and speedily becomes a master—the master a tyrant; and by the time he arrives at manhood, the man is a slave. I heard a man say that for eight-and-twenty years the soul within him had had to stand, like an unsleeping sentinel, guarding his appetite for strong drink. To be a man at last, under such a disadvantage—not to mention a saint—is as fine a piece of grace as can well be seen. There is no doctrine that demands a larger vision than this of the depravity of human nature. Old Dr. Mason used to say, that 'as much grace as would make John a saint, would hardly keep Peter from knocking a man down.'"

There are some curious stories of special vices transmitted from parent

to child, which, if true, are exceedingly significant, to say the least.\* Gama Machado relates that a lady with whom he was acquainted, who possessed a large fortune, had a passion for gambling, and passed whole nights at play. "She died young," he proceeds, "of a pulmonary complaint. Her eldest son, who was in appearance the image of his mother, had the same passion for play. He died of consumption, like his mother, and at the same age. His daughter, who resembled him, inherited the same tastes, and died young." Hereditary predisposition to theft, murder, and suicide, has been demonstrated in several cases. But the world at large is naturally indisposed to recognise congenital tendency to crime as largely diminishing responsibility for offences or attempted offences of this kind. So far as the general interests of the community are concerned, the demonstrated fact that a thief or murderer has inherited his unpleasant tendency should be a *raison de plus* for preventing the tendency from being transmitted any farther. In stamping out the hereditary ruffian or rascal by life imprisonment, we not only get rid of the "grown serpent," but of the worm which

Hath nature that in time would venom breed.

An illustration of the policy at least (we do not say the justice) of preventive measures in such cases, is shown in the case of a woman in America, of whom the world may fairly say what Father Paul remarked to gentle Alice Brown: it "never knew so criminal a family as her's." A young woman of remarkably depraved character infested, some seventy years since, the district of the Upper Hudson. At one stage of her youth she narrowly, and somewhat unfortunately, escaped death. Surviving, however, she bore many children, who in turn had large families, inasmuch that there are now some eighty direct descendants, of whom one-fourth are convicted criminals, whilst the rest are drunkards, lunatics, paupers, and otherwise undesirable members of the community.

With facts such as these before us, we cannot doubt that in whatever degree variability may eliminate after awhile peculiar mental or moral tendencies, these are often transmitted for many generations before they die out. If it be unsafe to argue that the responsibility of those inherit-

---

\* The following statement from the researches of Brown-Sequard seems well worth noting in this connection:—"In the course of his masterly experimental investigations into the functions of the nervous system, he discovered that, after a particular lesion of the spinal cord of guinea-pigs, a slight pinching of the skin of the face would throw the animal into a kind of epileptic convulsion. That this artificial epilepsy should be constantly producible in guinea-pigs, and not in any other animals experimented on, was in itself sufficiently singular; and it was not less surprising that the tendency to it persisted after the lesion of the spinal cord seemed to have been entirely recovered from. But it was far more wonderful that the offspring of these epileptic guinea-pigs showed the same predisposition, without having been themselves subjected to any lesion whatever; whilst no such tendency showed itself in any of the large number of young bred by the same accurate observer from parents that had not thus been operated on."

ing special characteristics is diminished, the duties of others towards them may justly be considered to be modified. Other duties than the mere personal control of tendencies which men may recognise in themselves are also introduced. If a man finds within himself an inherent tendency towards some sin, which yet he utterly detests, insomuch that while the spirit is willing the flesh is weak, or perchance utterly powerless, he must recognise in his own life a struggle too painful and too hopeless to be handed down to others. As regards our relations to families in which criminal tendencies have been developed, either through the negligence of those around (as in certain dens in London where for centuries crime has swarmed and multiplied), or by unfortunate alliances, we may "perceive here a divided duty." It has been remarked that "we do not set ourselves to train tigers and wolves into peaceful domestic animals; we seek to extirpate them;" and the question has been asked, "Why should we act otherwise with beings who, if human in form, are worse than wild beasts?" "To educate the son of a garotter or a 'corner-man' into an average Englishman," may be "about as promising a task as to train one of the latter into a Newton or a Milton." But we must not too quickly despair of a task which may be regarded as a duty inherited from those who in past generations neglected it. There is no hope of the reversion of tiger or wolf to less savage types, for, far back as we can trace their ancestry, we find them savage of nature. With our criminal families the case is not so utterly hopeless. Extirpation being impossible (though easily talked of) without injustice which would be the parent of far greater troubles even than our criminal classes bring upon us, we should consider the elements of hope which the problem unquestionably affords. By making it the manifest interest of our criminal population to scatter, or, failing that, by leaving them no choice in the matter, the poison in their blood may before many generations be eradicated, not by wide-spreading merely, but because of the circumstance that the better sort among them would have (when scattered) the better chance of rearing families as well as of escaping imprisonment.

---

---

## Æs Triplex.

---

THE changes wrought by death are in themselves so sharp and final, and so terrible and melancholy in their consequences, that the thing stands alone in man's experience, and has no parallel upon earth. It outdoes all other accidents because it is the last of them. Sometimes it leaps suddenly upon its victims, like a Thug; sometimes it lays a regular siege and creeps upon their citadel during a score of years. And when the business is done, there is sore havoc made in other people's lives, and a pin knocked out by which many subsidiary friendships hung together. There are empty chairs, solitary walks and single beds at night. Again, in taking away our friends, death does not take them away utterly, but leaves behind a mocking, tragical, and soon intolerable residue, which must be hurriedly concealed. Hence a whole chapter of sights and customs striking to the mind, from the pyramids of Egypt to the gibbets and dule-trees of mediæval Europe. The poorest persons have a bit of pageant going towards the tomb; memorial stones are set up over the least memorable; and, in order to preserve some show of respect for what remains of our old loves and friendships, we must accompany it with much grimly ludicrous ceremonial, and the hired undertaker parades before the door. All this, and much more of the same sort, accompanied by the eloquence of poets, has gone a great way to put humanity in error; nay, in many philosophies the error has been embodied and laid down with every circumstance of logic; although in real life the bustle and swiftness, in leaving people little time to think, have not left them time enough to go dangerously wrong in practice.

As a matter of fact, although few things are spoken of with more fearful whisperings than this prospect of death, few have less influence on conduct under healthy circumstances. We have all heard of cities in South America built upon the side of fiery mountains, and how, even in this tremendous neighbourhood, the inhabitants are not a jot more impressed by the solemnity of mortal conditions than if they were delving gardens in the greenest corner of England. There are serenades and suppers and much gallantry among the myrtles overhead; and meanwhile the foundation shudders underfoot, the bowels of the mountain growl, and at any moment living ruin may leap skyhigh into the moonlight, and tumble man and his merry-making in the dust. In the eyes of very young people, and very dull old ones, there is something indescribably reckless and desperate in such a picture. It seems not credible that respectable married people, with umbrellas, should find appetite for a bit of supper within quite a long distance of a fiery moun-