**On expression in nature / by Wm. Main.**

# ON

# EXPRESSION IN NATURE

BY

WM. MAIN, M.D.

"The knowledge of the old is God's guiding star for the young, which it is alike the duty of the old to impart, and the bounden duty of the young to profit by."—*The Liverpool Daily Post.*

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Dedicated

TO

THE HONOURED MEMORY OF THE LATE

IR ANDREW CLARK, BART., M.D., P.R.C.P. LOND.,

ETC. ETC. ETC.,

IN GRATEFUL REMEMBRANCE

OF

ENCOURAGEMENT, SYMPATHY, AND MUCH KINDNESS

TO

ME AND MINE.

# PREFACE.

THAT the philosophy of the Expression of Emotion is a very difficult matter to elucidate, the very numerous works on the subject abundantly prove. The earlier authors made little attempt at explanation, but confined their attention almost entirely to establishing rules in physiognomy. Sir Charles Bell was the first in this country to treat the subject in a philosophic spirit, followed after many years by the late Mr. Charles Darwin, and more recently by Professor Mantagazza and Dr. Warner. With the exception of Sir Charles Bell, all these authors have studied expression chiefly from a physical point of view. Many years ago my attention was directed to this branch of inquiry from an artistic aspect by my having read some rules in art regarding the relation of a particular direction of lines and expression. These rules were to the effect that lines tending upwards suggested power and progress; that on the contrary, lines tending downwards indicated weakness and sadness; whilst horizontal lines were indicative of repose and peace. These rules appeared to me very remarkable, and I began forthwith to test their truth. During the investigation I found that, while the directions of lines were very important factors in expression, there appeared to be others, namely, the signs of energy, which had perhaps the greatest power in arresting our attention, and which were not necessarily included under the terms given. It is true that up lines are almost always associated with energy; yet

we have also marked energy in certain motions and sounds which, though they contribute powerfully in expression, cannot be represented by any lines.

Dr. Warner, in his able and elaborate work on "Physical Expression," writes :—"Expression in its widest signification is the outward indication of some inherent property or function. An expression is a physical sign which is accepted as a criterion of the property, because the two are found by experience to be more or less uniformly co-existing phenomena." This is, perhaps, as philosophic and clear a definition of expression as we could wish. It would imply that any contraction of the face muscles which produces expression must be preceded by an emotion affecting the nerve centres. Now these expressions are, and probably have ever been, pretty nearly the same in man ; and since they indicate more or less accurately the emotions of the mind, they necessarily must always have had, and still have, a great interest for man, and consequently we watch them with great keenness and attention. The contraction of any of the muscles of the face, even to a very small extent, is sure to be noticed and its meaning questioned. Now there is, at least, one indication which can always be drawn from all muscular contractions visible in the countenance, and that is nervous energy. Whatever else may be inferred, this energy we are sure of. But it is a curious and interesting fact that this energy is almost uniformly accompanied by uptending lines. This assertion may not at first be accepted, so far as the human face is concerned, for there the lines are so exceedingly minute and delicate. However, in the present work I hope to make it clear that energy in animal and vegetable life is almost always indicated by uptending lines as the art rules assert ; and that, even in the human face, these rules are found to hold true.

But while uptending lines are thus intimately associated with energy, it is equally true that downtending lines are as closely allied with weakness, as I shall be able to show.

So very generally are these lines found in nature a true indication of the two conditions, that artists have come to state them in the formula I have given.

It is evident that a rapid and correct appreciation of these signs of strength and weakness must have been of the very greatest consequence to man from the beginning in regard to self-preservation—to attack and defence. In very early times, doubtless, the only law observed by man was that which regulates the lower animals now, namely :—

> "The good old rule ; the simple plan,
> That they should take who have the power,
> And they should keep who can."

Though man is living under very different laws now, yet he has only arrived at these by slow degrees ; and even now these signs are of great importance to him, while they are as urgently necessary as ever they were to the lower animals. If we accept the dicta of modern philosophers that man has risen by slow stages from a low and rude condition of animalism ; and that, nevertheless, in that low condition he was possessed of all the principles of mind which distinguish him now, though in an undeveloped state ; and that, moreover, his varying and rude emotions must have been expressed in a manner similar to what they are now, and by the same organs ; we can have no difficulty in supposing that the appreciation of signs of power and of weakness would be one of the very first lessons he would learn in his intercourse with his fellows.

Though the following pages are little more than the accumulated notes taken from time to time amid the engrossing duties of a professional life, yet they will, I trust, prove beyond a doubt that the art rules referred to are true in nature generally, so true and so nearly universal that man and animals have come unconsciously to accept them

as the intuitive language of emotion, and to direct their judgment and actions in accordance with them.

I will not attempt to enter fully into the reason why a certain direction of lines should suggest certain emotions; or, perhaps, rather, why the expression of certain emotions should always be accompanied by a certain direction and combination of lines. I take a superficial glance at this point,[1] but must leave its fuller development to more profound physiologists than I am.

Mr. Darwin, writing in reference to the difficulties of understanding the cause of expression and if our explanations of them are trustworthy, remarks:—"I see only one method of testing our conclusions. This is to observe whether the same principles by which one expression can, as it appears, be explained, is applicable in other allied cases; and especially whether the same general principles can be applied with satisfactory results both to man and the lower animals. This latter method, I am inclined to think, is the most serviceable of all." The following remarks will be found to afford to the full the advantage which Mr. Darwin suggests, for I have been in the habit of applying the art rules to vegetation and the lower animals in general, as well as to man, his customs, and gestures. The reader will therefore be able to judge of their applicability to all kinds of animated objects.

To me the continuous observations have been a source of great interest and amusement, and I trust my accumulated notes may interest and amuse others. If I have managed to throw a single ray of light on any point connected with the expression of emotion, I shall feel amply rewarded; for it is a subject, like most questions in nature, so difficult that, after passing under the careful study even of the late Mr. Darwin, he still acknowledged that "very many points remain inexplicable."

[1] See page 35.

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# EXPRESSION IN NATURE.

## INTRODUCTORY.

It is a truism that, in this busy world, all men are in the habit of forming some opinion of each other, even upon the slightest acquaintance. You cannot help doing so. If you happen to have a judicial mind, you will be cautious and not allow your first judgment to go far into details of character. Still, though you may not have exchanged a single idea with an individual, provided only you have had a good look at him, you certainly have come

to some conclusion as to his disposition, as for instance, that he is energetic or languid, cheerful or sad.

And the same is the case regarding animals, as people speak of a noble horse, a majestic lion, a terrible bull, a gentle cow, a stupid donkey, a plucky dog, a sleepy cat; not that they know anything of the qualities of the particular animal before them; but, judging merely from their general appearance, they conclude that certain animals are possessed of certain qualities. Even in reference to the vegetable kingdom, the same habit holds true in a certain degree; we speak of a particular tree as being majestic, or noble, or graceful; while of small plants and flowers we call one, perhaps, modest, another innocent, another perky, and so on.

Now, it had long been a puzzle to me to discover on what grounds we formed our temporary judgment of men, animals, and plants. It was easily proved, that a special opinion formed by one individual regarding some particular person or thing, was not peculiar to that individual, but that it was held in common by many others. What form or quality, therefore, did a certain person or thing possess by which the judgment of men, generally, was guided? In some cases the reason appeared to be obvious enough; but in by far the greater number of instances, I found it impossible to account for it. Lavater and the early authors gave me little help. They speak of certain faces as possessing certain qualities, etc, but throw no light on the question. Why do we so think of these faces? Sir Charles Bell, again, gave his attention

chiefly to the anatomy of expression, and not to the puzzling point we are considering. Somewhere about forty years ago I came across a statement, probably in the *Art Journal*, which seemed to promise some light on this difficult point. The statement implied that a particular direction of lines in an object suggested special ideas to us. The terms, so far as I remember them, were that "uptending lines indicated progress and power; that downtending lines suggested weakness and sadness; and that horizontal lines were indicative of repose and peace." I then began to apply these rules to our judgment regarding expression in the human face. Though there appeared to be some truth in the rules, yet at first I found it difficult to make much of them, as the lines there were so minute, so numerous, and so complicated. The art rules,

however, made so strong an impression on my mind that I continued to test how they applied to such of the lower animals and vegetation as had a strong expression. The more I looked into the matter the more interesting it became; and accordingly, almost day by day, for these forty years I have been in the habit of applying this curious law in art to all kinds of objects, and the more I have practised this, the more I have been astonished and pleased to find how wonderfully true it proves to be. Indeed, had it not been true to nature it would never have arisen; for artists are, necessarily, most minute observers, and this law regarding lines is doubtless the result of accumulated observations.

This law, which was so new and striking to me, I have been told, is one very well known to and generally acknowledged by

artists. Should this be the case, it is somewhat surprising that it is not generally taught by drawing masters to their pupils, since it is evidently a fact of very considerable importance in art. Yet of all the many well educated ladies whom I have questioned on this point, only one acknowledged to have heard of this law of lines, and she had received her art education in Switzerland. But however this discrepancy may be accounted for, I suspect that few—even perhaps of those who are cognisant of the law—are aware how curiously and generally applicable it is.

In the progress of investigation, I am bound to state, I soon found we must not restrict the law to the absolute terms which I have given, and which are *the only ones* I happen to remember, as defining the art dogma, but that in addition to these, we

must also include others which are *allied* to them. Thus, while uptending lines certainly indicated progress and power, they also suggested hope, joy, and similar emotions, and perhaps most certainly of all, energy. Again, in downtending lines, sadness and weakness are not the only ideas suggested, but also feebleness, hopelessness, and, by inference, dislike, or possibly, in some cases, death. Horizontal lines, again, while no doubt suggestive of repose and peace, are not less indicative of calmness, often of dignity, and sometimes of death. In the following remarks, therefore, it must be carefully kept in view that the expression ascribed to the direction of lines embraces not only the terms employed in stating the law, but also others *allied* to these; and further, in order to save the repeating of terms, let us take the energy indicated by

up lines as including all the other signs of that condition. This, of course, is all-important.

## *Uptending Lines in Vegetable Life.*

Let us now begin and test the truth of this law, and observe the connection between the expression and the direction of lines in many of the various forms of organic life around us.

In trees we easily see the direction of lines, since they are so well marked in the branches.

Young trees, generally, with few exceptions, have their main stems and branches directed upwards; and they certainly have an active, hopeful, and progressive look about them. More especially is this the case in several of the pine tribe, such as the

young spruce, larch, silver and Scotch firs, with their stiff, straight points shooting upwards and outwards with mathematical precision, which gives them an aggressive expression of energy. As they advance in age, this suggested feeling becomes much modified by their changed forms, as we shall see by and by, but in their youth it is very marked. And this is the case, to a greater or lesser extent, with almost all young trees, as they show the up lines predominating, and it will be granted that they bear a corresponding expression of energy.

Even those trees which chiefly retain up lines in their maturity, will be found also to retain the expression which has been ascribed to these lines. Take the Lombardy poplar as an example, with its well-known perpendicular habit of growth. Few will gainsay that it has a dominant, progressive

look about it, quite peculiar to itself; though on a nearer view this may be somewhat changed by the incurvation of the extremities of the branches. And the same remarks apply, though in a less degree, to the alder and the English elm, or any other trees where the main stem runs well up, and the branches are short or small. In all of these instances, and in many others, a reflecting observer will agree with me that their general and most pronounced expression is that of energy, progress and power.

Even in the case of bushes, if these have their branches directed upwards, the same rule holds true. This is very well seen when numerous young shoots arise from an old crown, say, of horse-chestnut or sycamore; in this case there is a decidedly fussy energy suggested, a feeling altogether different from the impression conveyed by

looking at a gooseberry bush, or any other with a curved habit of the branches.

In the case of small flowers, the art law applies equally as to bushes and trees. If decided up lines are shown, a corresponding energy is given to the plant. On observing a cyclamen in bloom in an invalid lady's bedroom on one occasion, I asked her how she would describe the character or expression suggested by the plant. After considering for a moment she replied, "I should say it looked perky." This lady knew nothing whatever of the art law; and yet, doubtless, impressed by the sharply reflected petals of the cyclamen, she gave an opinion exactly in accordance with that law. On another occasion, when walking round my garden with a friend, and looking at some pansies, he remarked, "Do you know I always think a pansy looks an

impudent little flower?" In all probability this impression was owing to the aggressive energy of its upright corolla, and the staring effect resulting from this and its bright eye. This suggestion of energy by the pansy will be found applicable to all radiating flowers, which stand upright, such as the sunflower; but in radiating flowers which are disposed horizontally like the cineraria, the same feeling of energy is not nearly so conspicuous. Should this opinion be disputed, I feel sure that all will agree that there is a very decided energy and progress suggested by a bed of young lilies of the valley before they burst into leaf. Compare such a bed with one of violets, and no person can doubt the effect of the up lines of the former in comparison with the nearly horizontal lines of the latter. Of course these remarks apply with equal truth to all young

plants where the leaves come up in a sharp spike, as compared with those which expand immediately on coming through the earth.

## *Downtending Lines in Trees.*

That downtending lines in vegetable life are suggestive of sadness and decay, and the feelings allied, is even more evident than in the case of up lines and their particular indication. The illustrations are few, but all the more striking on that account. Every reader will at once recognise the "weeping" ash, elm, willow, and others as examples; the downward direction of whose branches has doubtless suggested the name, the term "weeping" being applied by gardeners to all plants which droop.

On reflection, most people will admit

that the drooping of the flower, in the case of the snowdrop, has more to do with the sentiment connected with it, than its pure white colour and early habit of flowering. Undoubtedly, the gentle drooping of the flower, when it first blooms, does give a pensiveness to its appearance, for this feeling is, to a great extent, lost when the corolla is fully expanded. The same pensive feeling will also be found in the case of the garrya elliptica, some of the companulas, and other "weepers," the expression probably being in proportion to the amount of the drooping, and the absence of well marked lines otherwise directed.

On looking at fields of ripe corn in autumn, a very different expression may be observed between that of a field of barley, with the drooping heads of the grain, and one of wheat or oats. Though

you would not probably describe the barley field as looking sad, yet it certainly has a finished or pensive appearance; whereas the oat field may be said to look gay or graceful; and one of wheat energetic and promising favours to come.

When a long-leafed plant is affected by frost, only to the extent of making its leaves droop, it will at once be conceded that it looks most pitiable. And such is also the case with any succulent plant, as for instance a dahlia, caught by an early autumn frost. Nothing is more disappointing and vexatious for a person who takes pride in his garden, than to see a nice bed of tender herbaceous plants stricken down in this way. Now our feeling of regret at finding handsome plants ruined is, of course, the loss of their beauty; but it will be found that the painfulness of the emotion is greatly increased by seeing

their drooping heads and leaves. When a stiff hardy plant dies but does not droop, the effect on us is not nearly so great as when we lose one which shows down lines when it withers. This may be conspicuously noted in the case of flowers which show some bold up lines when in vigour, such as the sunflower and others of that class. The sunflower, when in its full beauty, looks very energetic, with its erect yellow petals; but nothing can exceed the dejected and tawdry effect of these same petals when hanging, irregular and withered, over its beautiful central disc.

When trees are not deformed by being crowded together, almost all of them droop their branches with becoming gravity, as they advance in age. Most of the pines, the birch, horse-chestnut, lime-tree, and ash, all follow this rule in a marked

manner. It is in this way that the ogee line is formed in several of them, which, as we shall see afterwards, adds wonderfully to their elegance and grace.

When, in walking through some of the bleak valleys in the Highlands, you come upon a clump of larch firs on the hillside, how melancholy they look in comparison to a clump of Scotch firs! The former seem so sad and lonely; the latter calm and dignified. This must be because, in the larch, the branches droop greatly, while those of the Scotch fir are either horizontal or massed, and show few or no down lines.

Again, every person who has travelled in Switzerland, must have been struck by the sadness, loneliness, and stillness of the vast pine forests there. Now while the great dark mass of green, and the

absence of movement and sounds, are, no doubt, powerful factors in producing this effect, still I think that, more especially on a nearer view, a decidedly increased feeling of sadness is given to the scene by the drooping branches of the trees. If the pines in these vast forests had the complete drooping habit of the deodor, the effect would probably be altogether intolerable.

The effect of down lines may also be keenly perceived when we thoughtfully gaze on trees during a smart summer gale. How sad it looks to see the slender branches bending for ever to the blast. As persistently as they try to regain their upright position, so instantly are they stricken down again by the invisible force. The battle looks a weary and unequal one for the poor tree; and you cannot but

sympathise with it. Now this impression, in all probability, is the result of the down lines of the small branches, repeated again and again; for if we watch rhododendrons or other short and stiff branched bushes or trees in similar circumstances the expression is quite different. In these plants the branches will not yield to the force of the wind, consequently it is only the leaves that shake or tremble, and in their doing so, the impression they give us is not sad, but rather they look as if irritated and worried. It is in such instances that the artist, notwithstanding his marvellous power, is still far behind nature. No matter how subtle may be his touch, he cannot depict action, however cleverly he may be able to suggest it.

As it does not appear necessary to investigate this point further, we will now

proceed to consider the effect of the horizontal line in trees.

## *Horizontal Line in Trees.*

We have not many opportunities of observing the effect of the horizontal line in trees, but there is one instance, which, even if it stood alone, would suffice to prove the truth of the artistic expression of this line. Every person who has gazed with interest on a park where there is an aged and well-grown cedar of Lebanon, must have felt the dignified calmness and repose of its expression. It always suggests to my mind a grand old patriarch, with outstretched arms, in the solemn, but silent, act of blessing his people. Now, this must be almost entirely the result of its well-known horizontal

branches; for the only other element present to produce such an effect is its colour; and yet many other trees have the same sombre green hue, but not one of them has the expression of the cedar. You sometimes, to be sure, see an aged pine, oak, or elm showing a few bold horizontal branches; and when such is the case, its expression becomes somewhat akin to that of the cedar, though by no means so well marked; simply because no other tree in this country has the peculiar habit of throwing out its branches in perfectly horizontal layers.

From what has been said, and without adducing further evidence, I hope the reader is tolerably well satisfied that the artistic law regarding the expression of prominent lines, so far as vegetable life is concerned, is perfectly true to nature.

## *Up Lines in Animals.*

Let us now take a cursory glance at animal life; and here also it will be found that the artistic theory of lines holds quite as true as it does in plant life. Almost all animals, when young and energetic, show chiefly up lines in their form, as may be seen in the case of the puppy, kitten, foal of the horse, and other young animals. But it is in grown-up dogs that the effect of these lines may most easily be studied. The fox-terrier, for instance, affords a very good illustration. When he contemplates an attack from another dog, he draws himself up to his full height, raises his head, pricks his ears, bristles the hairs on his back, erects his tail, and, while thus vibrating with muscular tension, looks the picture of intense energy. And it is the same with

all other dogs in similar circumstances, though in some the lines may not be so well seen.

The horse, too, shows very clearly up lines when in energy. You talk of a "gay goer" simply because he carries his head, ears, neck, and tail well, and steps smartly. Observe him also when let loose in a field, how he raises his head and neck, pricks his ears, distends his nostrils, raises his tail, and looks ready to bound in any direction with wonderful power.

Cows also occasionally show similar lines to the horse, as, for instance, when they are driven desperate by flies in hot weather; they raise their heads, distend their nostrils, erect their tails, and charge at random in a most reckless and unreasonable way, which always greatly excites the interest of spectators.

Birds, too, though they, in general, have little expression, occasionally use up lines when putting forth energy, as may be observed in pigeons making love, or challenging each other. The male bird in these circumstances first lowering his head suddenly raises it, and swelling out his crop, he erects himself to his greatest height and looks a grand fellow indeed in his own estimation. We are all so much accustomed to see our common domestic cock strutting about with his harem, that we may overlook the fact that he shows many well marked up lines. When he is about to fight though he lowers his head to the charge, yet he erects his heckles to show the enemy that he is undaunted. The turkey-cock also when angry raises his tail and back feathers as well as his head, and thereby looks very imposing. Again in the peacock we observe

the same thing. He erects his beautiful tail apparently in intense self-consciousness and pride to attract his mate's admiration and tender regard.

When a duck tilts her head to one side, in all likelihood she has no intention of increasing her appearance of energy. But to onlookers, it certainly gives her a perky, intelligent look, though probably this may only apply when we see the elevated side of her head. And the same thing may be observed in the tame jackdaw. This bird invariably attracts our attention by the peculiar movements of his head, which, as in the duck, is often tilted for a moment to one side, doubtless to enable him to see better either above or beneath him. The effect of the movement is to give him a very knowing and energetic appearance. Probably it is this peculiar expression, com-

bined with his thieving proclivities, which has given him in Scotland the reputation of being "no canny."

In the case of the robin, wren, and others, their tails are markedly, but interruptedly erected, and they thereby express a great degree of energy. I strongly suspect that Tannahill must have been as much impressed by the tail of the wren as by its restless habit of hopping about, when he called it "the merry wren." Looking at the matter in this light, the late Rev. George Gilfillan, of Dundee, was perhaps not far wrong, when in his arguments for preferring a platform to a pulpit for his church, he asserted that he wished to be well seen, since every part of his figure had its own place and power in his sermon, "ay, even the very tails of my coat."

## *Down Lines in Animals.*

That downtending lines in animals suggest to us sadness and the allied feelings is abundantly evident. What can be more touchingly sad than to look on an old sick or worn-out horse or dog? What a contrast there is here to the same animals in a state of energy! And this change is effected entirely by a few downtending lines, namely the depressed head, fallen ears, drooping eyelids, and limp, hanging tail. It is quite astonishing when we reflect what a wonderful amount of expression there is conveyed to us by the direction of these few members of the body. Words could not appeal to our emotions with anything like the same power. Some time ago, I rescued a collie which was hanging on the spike of an iron

railing he had been endeavouring to clear; he was injured, but not dangerously, and walked away. Next day I found him sitting at the door of a friend's house, and his look of sadness was something to remember, but impossible fully to describe. He sat on his haunches with his head lowered, his ears and cheeks hanging loosely, his eyelids drooping much; and never moved a muscle. As I went forward to ring the bell, he slowly turned up his eyes to look at me, but not, in the slightest degree, his head; and oh! the eloquence of that look! it told far more touchingly than any words could do, how utterly sad, friendless, and dejected he was. I took him home with me and kept him a few days till I got a butcher to take him. Sad to say, he turned out an incorrigible thief, and had to be killed.

But besides showing down lines when

sick or sad, the dog appears to have found out the effect of downtending lines on man, for we find him producing these intentionally for the very purpose of working on our feelings. If your favourite dog companion has committed a fault and you scold him, he immediately crouches with his head depressed to the ground; his eye-lids droop; his ears and cheeks hang; his tail is depressed; and thus he looks the picture of contrition, and appeals to your tender feelings. And it really requires a considerable amount of determined severity to punish an animal looking so humble and sorrowful. Presently he cautiously ventures to wag his tail in friendly peacefulness; and as he sees your features relax, so he in proportion resumes his signals of energy, till he jumps up on you and licks your hand, and then bounds off when quite forgiven. Now, though it may

be disputed whether dogs are entirely destitute of moral propensities, yet we may easily prove, that, in this case, morals have nothing to do with his assumed attitude; for, fault or no fault, he will go through the same movements whenever you seriously scold him, if he is properly under control and not a spoiled pet.

Sir Edwin Landseer, in his well-known pictures, has shown that he appreciates in a very remarkable degree the lines—even the most minute—by which the various expressions in dogs are produced; and since he had also the skill to represent these by his pencil, his pictures are found to be true to nature, and accordingly are thoroughly enjoyed by all.

Birds of all kinds, as well as quadrupeds, show down lines when weak or sick. This is constantly to be seen in our domestic

fowls and in small birds; for when these are suffering from disease, they retract their necks, lower their tails, and hang their wings, and thus look very ill and miserable.

The young of many birds, such as crows, sparrows and others, lower their wings when they plead with their parents to be fed, though they are perfectly well; and it is probable that they do this to work on the emotions of their kind parents. Old birds, even in robust health, if they show strongly marked down lines, are sure to suggest to our minds some serious feelings. A visit to the Zoological Garden and inspection of the ibis, heron, and other wading birds, will test the truth of this assertion. And most people who have passed through Holland must have been interested in observing the solemn appearance of the tall fishing birds as they stand by the small canals there, watching for

prey. No doubt this feeling is the result of the drooping head and long bill pointing downwards and forming a very bold down line in front; while their long, straight legs and nearly erect bodies, give a very strong up line. That it is not the erect body alone which produces this effect, may be proved by comparing the penguin with the heron. The body of the penguin is quite as erect as that of the heron, and though it looks peculiar and perhaps aggressive, yet there is nothing solemn in its appearance, as there is in that of the wading birds, with their drooping heads and long bills.

### *Horizontal Lines in Animals.*

That an animal in the horizontal or recumbent position suggests to us repose and peace, is a fact so self-evident that

any illustration to prove the point would be quite superfluous. I would only remark that the more completely the animal assumes the horizontal position, the more complete is the repose indicated. Most people must have observed this when they have seen a cow, a horse, or a sheep, lying fully stretched out in a field. In fact, in such circumstances, we often suspect the animal to be dead, and not unfrequently walk up to it to make certain of this point. To be sure, this may, to some extent, be owing to the fact that these animals comparatively seldom stretch themselves out in this way, unless in death. But whatever may be the explanation in regard to their suspected death, there can be no doubt that this position indicates more complete repose than when they have the head and neck raised, as is most commonly the case when they are lying down.

It may also be remarked, as an illustration of the effect of the horizontal line in respect to movements, that, when a dog wags his tail horizontally, he always means peace and friendship. This is invariably the case; but with regard to cats and their race, the horizontal action of the tail seems to imply the very reverse, since in them, I fear, this movement generally precedes an attack, and is therefore an exception to the general indications of the horizontal line. May it not be this peaceful movement of the tail of the cat, when about to attack, which has given rise to the idea of treachery in her character?

The application of the law to man we will proceed to discuss after we have still further considered the subject.

*Why do Plants and Animals show Power and Weakness chiefly by Up and Down-tending Lines?*

In the meantime let us consider why plants and animals, as a general rule, show energy and the allied feelings by uptending lines, and weakness and its allies by those tending downwards.

This difficulty was first suggested to me by the late Mr. Darwin. His book on "The Expression of Emotion in Man and Animals" was published at the time when my investigations had reached this point. After reading the volume with the greatest interest, admiration, and pleasure, I took the liberty of writing Mr. Darwin to the effect that many of the expressions suggested by the various attitudes and movements in man

and animals, which he described, could be accounted for by the art dogma concerning the direction of lines. Mr. Darwin courteously replied, stating that he thought I would have difficulty in accounting for the various expressions on that theory; but that even if we could do so the question would remain, Why? I had hitherto been so much interested in observing the wonderful agreement between the facts presented in nature and the indications of the art dogma, that the question of why it should be so had never occurred to me till Mr. Darwin pointed it out. In the case of plants we can readily perceive why up lines should be associated with power and progress; and down lines with weakness or death. In all vigorous, young, growing plants the cells are built up rapidly one on another, and this gives them an upright form and character,

except in the few cases where, from some cause, the cell growth is unequal, when "weeping" is the result.

In the case of tender plants being caught by frost, or injured in some other way, the cell structure is burst, and the supply of sap is arrested; and of course the plant flags and droops by its own weight, in accordance with the law of gravity, and thus shows down lines. After a tree has arrived at maturity, the branches, of course, have become greatly extended, and now they droop more or less by their own weight in proportion to their length and strength. Trees with long and slender branches, such as the birch, lime-tree, horse-chestnut, and ash, droop more than the oak and sycamore with their harder wood, and more compact habit of growth. The phenomena in plants, therefore, appear to have merely a commonsense explanation.

In animals the case is different; for though the results are somewhat the same as in plants, the cause in the former must be ascribed to the presence or absence of nerve force. When the nervous system is in a state of excitement, its presence is indicated by the contraction of certain muscles, and when nerve force is low, then the muscles are in a more or less relaxed state. Hence during any exciting mental emotion the expression in the face, particularly about the eyes, shows either uptending, or the energy of sharply defined lines from the contraction of the muscles; and the more intense the emotion the more clearly marked are these signs of energy in the face.

In all healthy and robust young animals, when awake, the nervous system is almost perpetually in tension; and there is a constant and instinctive desire for the frequent

action of all the various muscles of the body. And it is, in a great degree, the same when the animal, if healthy, has reached maturity. Hence the common phenomena of up lines or other signs of energy in the young, healthy, or robust animals.

On the other hand, in old age, in sickness, or during mental depression, man and animals experience a relaxed state of the muscles from the want of nerve force ; and now there is a consequent falling down of the lines or absence of energetic signs. These causes and effects must have been at all times almost invariable ; and therefore we can see how, by long experience, we come, unconsciously, to associate uptending lines with energy, and those tending down with the reverse. The phenomena are so general in nature that an appreciation of them has, in fact, become

inherited knowledge, or instinct, in animals as well as in man, as I have already said, for there can be no doubt that animals in general must have obeyed the same muscular and nervous laws from the beginning. We have, at least, abundant proof that many of them understand expression by lines at the present day ; and possibly on more extended observation we should find that all intelligent creatures possessed this knowledge to a considerable extent. We read of birds in numbers attacking and killing one of their own flock which has been hurt or become sick or diseased, and therefore showing down lines. I once possessed a Manx cat which showed every sign of sympathy for my house dog by licking and fondling him when he was ill, though it never did so at other times, and such illness could only be shown by down lines. Then again in horses,

they understand perfectly the meaning of another horse coming to them with his ears thrown back, and his head extended, and lowered, and at once they prepare to defend themselves. And in sheep I have observed the same thing. Then in dogs the knowledge of line expression is most conspicuous, for, when two strange dogs meet, you will often remark, that if one of them, though much the larger, lowers his tail and ears, the other, even though a much smaller dog, will at once attack him with the utmost confidence. Generally, however, it is the smaller and weaker animal which first shows down lines by his tail and ears. No doubt, in many cases, this is merely the result of fear; but I have satisfied myself by repeated observations, that this cringing attitude is not unfrequently assumed in order to indicate submission, and is thus understood

both by man and dogs. If a dog, when threatened by another, at once shows down lines, it is not often that he is severely punished. I once had a bull terrier who, when he was attacked by a much larger dog than himself, such as a St. Bernard, simply rolled himself over on his back at the first onset, and pleaded for mercy with his fore-legs raised, and his paws bent down. In such circumstances he generally got off very easily. And yet this same dog showed good fighting powers with one of his own size; and was very clever at killing cats, which indeed became a favourite amusement of his, for which I had to part with him. In a future paragraph this submissive attitude in dogs will be further considered.

On one occasion I had the satisfaction of observing that even a rat perfectly understood the probable action of a cat, by the

energy shown by her ears. The rat was next a wall and behind a small bush, so that it could see nothing of the cat except her head. The cat sat very patiently with her ears at rest, as cats always do when waiting for a victim. But whenever the rat attempted to run away, I remarked that the cat instantly directed her ears forwards with energy, and waved her tail. The rat, apparently observing this movement of the cat's ears, quickly faced its enemy, and gave a sharp, shrill cry of pain; whereupon, the cat resumed her former peaceful look. These movements, on the part of both animals, were repeated again and again. At length on my moving forwards, the cat unfortunately gave her attention to me, and the rat managed to slip away unobserved. I had often remarked, with astonishment, that, notwithstanding the number of rats

which this cat killed, she herself never appeared to have been bitten in any way. After observing the movements just related, I presume that the cat always seized her victims at the back of the head or neck as they were running off, and thus escaped their teeth.

In the case of man, there can be no doubt that the cringing attitude—the result of down lines—is mere animal instinct. We constantly see it in whining beggars; and I have often remarked it in some of the lowest types of boys in a reformatory. One instance was very conspicuous. The boy's mental development was so low that he never could be taught even the alphabet thoroughly. Whenever this poor boy came to me in the hospital with some trifling complaint, his muscular relaxation and cringing attitude were most curious. His head

and body were bent forwards; his arms hung loosely by his sides; every line in his face tended downwards, except his eyes, which were always raised to look at me and watch the effect he was producing. As a rule, the lower the moral and intellectual development, the more the natural propensities come out. So it was with this poor boy. But his intelligence not being high, he sadly overacted his part, as many more clever actors do, both in life, and "on the boards."

### *Signs of Energy quickly perceived and regarded.*

Now, though energy is very often indicated by up lines, and weakness and sadness by the reverse, yet we must not suppose that this is always the case; nor does the

art law involve such an idea. I have already remarked that certain motions and sounds are highly expressive of energy, and yet these forces cannot be represented by lines. Again our experience and knowledge of the capacity for energy must often have an influence on our judgment. A bull or an elephant at once excites our attention, for though there may be no marked lines to indicate expression in them, yet we know from their size that their capacity for energy is enormous. Our appreciation of the signs of energy in any shape or form appears to me to be very keen indeed, and one of the most instinctive faculties we possess. No matter under what circumstances they are found, or what may be the direction of lines in the object, we feel bound to consider and respect them; and are uneasy until we understand their meaning,

and how the energy is being directed. In illustration of this I may relate the following incident :—A boy about seven years of age arrived in England with his father from Buenos Ayres, where there were then no railways. They landed in the evening, and went to the railway station. When the boy saw an engine with its glaring lamps come snorting along, he exclaimed, "Oh! papa, let us fly; there's a mad thing." In fact, he appreciated the energy of the engine, but did not understand it, and therefore thought it "mad."

Even experienced men are apt to come to the same conclusion as this little boy, when they observe energy which they do not understand. For example, should a man be seen walking along the road with a walking-stick in his hand which he twirls rapidly for a few steps, then uses in the

ordinary way for a yard or two, then twirls again, while at the same time you see him gazing the one moment up at the sky and the next down at the ground, turning his head to the one side, then quickly to the other, and back again, the cane meanwhile stamping and twirling alternately, while he progresses with elastic, determined steps — all these movements, being performed suddenly and unexpectedly, show much energy of action, which we know involves a corresponding excitement of the brain. We cannot see a person going on in this way, even to a less extent than I have described, without suspecting that the unfortunate fellow is mad. Unquestionably we will look with considerable interest at the expression in such a person's face, when we approach him, to try if we can there observe any further evidence as to

the state of his mind. Now the sole ground for our suspicion is simply that we see much energy which we do not understand, like the boy from Buenos Ayres. The unfortunate fellow, who thus excites our mistrust, instead of being mad, may only be labouring under some strong and disturbing mental emotion.

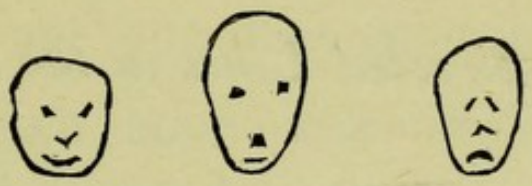
Then again, with regard to sadness and down lines, we must remember that death itself often shows only the lines of repose, and that there may be many a sad sight with no down lines, but even the reverse. A lunatic may be singing cheerfully in his gay trappings ; or an infant may be dancing with delight at the sight of his own mother's funeral. Both are sad enough sights to an onlooker, yet neither of them expresses sadness by down lines.

## *Objections to the Art Law.*

In applying to practice the art law which we have been considering, one of the first objections which may be urged is in the case of some simple line without any proper base, or what may be considered such, where in truth it is impossible to say whether it is an up or a down line. In such cases there is evidently no particular expression; and we must remember that the art law only asserts that it is when lines *tend* up or down that they convey to our minds certain ideas, and *tending* implies starting from a base or point.

In the case of the human face, it would appear to be intuitive for us to take the centre of the face as the base of lines of expression, and M. Chas. Blanc apparently

holds the same opinion, for in his "*Grammaire des arts du dessein*" he gives an illustration of expansive and convergent lines thus—



Now these are exactly equivalent to the lines we have been discussing, and every person will accept them in this light, that is to say, take the centre of the face as a base.

In the case of trees again, we naturally take the earth as a base for the stem, and the centre of the tree as a base for the line of the branches. I know not why this should be so; but apparently it is instinctive, as it is so general.

In most instances, the observer will have no difficulty in discovering a base for any

expressive line in nature, so that the objection will be found to hold only in theory and not in practice.

*Differently directed Lines in the same Object.*

Another and a much more serious difficulty in the application of the art law is this: How are we to interpret differently directed lines in the same object? As there are very few plants or animals which show only one set of lines, while most show all three sets in abundance, how are we to decide on the expression?

Now, it will be found that, in observing man, we are first of all impressed by the general character of the form, and afterwards, on more minute attention, by the lines in the face indicating the condition of the mind or will of the being. No doubt

it is rather a difficult matter to recognise the individual lines in the countenance, and to assign to those of each direction their proper influence in producing the expression, since they are so very minute. Still, as far as I have been able to analyse the expressions in different faces and the lines which occasion them, I think that the art dogma holds true here as in other circumstances, namely, those notable lines running in each direction retain their own signification and mutually influence each other in our estimate. Thus we shall see that a sad expression is produced by certain down lines, but if to these we add some less conspicuous up lines such as the vertical lines between the eyes, then the sad expression will be intensified. This may also be seen in the lines expressive of devotion, as will be pointed out afterwards. Or take the

expression of astonishment, where we see the eyelids and eyebrows are raised—this is at once converted into the expression of fear, if we cause the lower jaw to fall so as to open the mouth; or into terror, if, in addition, we lower and contract the eyebrows severely. Or again, if a bright, cheerful emotion is expressed by the face, then this emotion will be increased by certain up lines, such as raised eyebrows; or it may be softened and modified by certain down lines, such as those about the eyes or mouth. We often see such combinations of the emotions in a person at the same moment, and everyone fully appreciates them.

We combine words often contradictory to express our ideas—

"His honour rooted in dishonour stood,
And faith, unfaithful, kept him falsely true."

*Tennyson's* "Elaine."

—and so, for a similar purpose, we combine our gestures and our lines of the countenance to express our emotions. The first process is necessary to communicate our thoughts to others; the second is necessary to express and communicate our emotions. Lip language, however, is acquired by degrees from those with whom we associate, whereas the language of emotion would appear, from the extensive investigations of the late Mr. Darwin and Professor Mantegazza, to be common to man, and to have much the same meaning everywhere.

Now in regard to reading the emotions in the human face, and balancing the indications of the lines there, all will admit that it is certainly a natural instinct in man to examine inquiringly a strange face, if he has the opportunity, without being considered rude. In children the laws of social

courtesy are not so strictly observed, and less in that way is expected of them, and in them we almost always find that they stare long and intently at strangers. They are thus studying the language of lines, or in other words, the emotions; and though I do not for a moment conceive that they are observing the direction of the lines in the face, yet they are doubtless making, unconsciously, as correct and wise an estimate of the emotions as their knowledge and experience can command. Their intuitive education has in fact begun. Some persons appear to think that children have not much to learn in this way, for that they are already good judges of character. Such, however, is not the case, for at first it will be found that children judge of their seniors by such strong points as a beard, or moustache,

or spectacles, and that they like or dislike them on that account. They soon find their mistake, and no doubt go on to observe more and more minutely as they grow older; and so, without a conscious effort, they will continue practising and learning as long as they live. So that in thinking of the difficulty of making intuitive calculations of lines, we must remember that we all begin in childhood and continue to practise it all our lives with more or less industry and success.

Let us take a few examples of mixed lines in animals, and consider them from the art dogma point of view. The cat, when threatened by a dog, shows very conspicuously both up and down lines, along with much energy. She draws herself up to her greatest height, arches her back highly, and erects all the hair there and

on the tail, and retracts her cheeks; while at the same time the ears are drawn back and down, and the tail directed downwards. Mr. Darwin, in describing this attitude in the cat, speaks of it as "ridiculous," but I think there is far too much energy shown, and in a rather formidable animal too, to describe it by that term. On the contrary, she appears to me to be the picture of energetic hate, and an examination of her chief lines will be found to correspond to this expression in accordance with the art law. We have the retracted cheeks, the fierce glaring eyes, the ears sharply drawn *down* as well as back, as of purpose, and not hanging loosely; the back arched, with the hair erect, and the tail first raised and then depressed, also with its hair erect, and forming a most odious line,

We thus see that many important lines tend upwards, showing great energy; while there are others strongly marked tending downwards—namely, the ears and tail. On balancing these, I think most people will consider the down lines as analogous to those in the fierce, scowling brow of an angry man, and indicating energetic hate. When a cat caresses you, she often leans against your leg with her head bent down, and rubs her neck in a fondling way on your dress, but invariably she has her tail erect at the same time. Were it not for the erect tail, her energy of affection would not appear to be nearly so great.

In dogs also we see a double set of lines occasionally which are very expressive, and those of each direction evidently retain their own signification. For instance, when a

dog is running off in fear, he draws his tail quite down, yet keeps his ears somewhat raised and also his head, which he turns from side to side, doubtless for the purpose of hearing and seeing whether the object which frightens him is following or not. When dogs are making love to each other also, it is most interesting to watch the expressive influence of lines as shown by their ears and tails, and which are quite as intelligible to us as if they used words to express their feelings.

A dog of the peculiar breed called "pug," now so fashionable, offers a very good object for the study of lines. A "pug" always excites in us a spirit of inquiry when we first see one, because his lines are so striking and unusual that we cannot well read his character. His large, prominent, open eyes at once attract our attention and suggest

simplicity and innocence; but then we also see his protruding lower jaw, his upturned nose, the strongly marked vertical lines on his forehead, and the rigidly curled-up tail. Observing all these, we are at a loss whether to trust his innocent eyes, or to become anxious as to the outcome of so many up lines. On growing more familiar with the creature, we come to think him the very personification of absurd impudence.

The angry turkey-cock also offers a good example of differently directed lines in the same object. When in a rage, he droops his pendulous comb, retracts his neck, raises his back feathers and his tail, depresses his wings, which he rubs with energy on the ground, thereby producing a dull, hollow, rumbling sound, while at short intervals he jerks up his head, at the same time emitting that peculiar "gobble obble," which frightens

children so much, while grown people laugh at him, knowing his weakness in attack. I have said grown people laugh at him, but this is not always the case, as in Dean Ramsay's story, where a village imbecile called "Jock," being truly frightened by a certain turkey-cock, complained that, though he was very comfortable in his circumstances at home, he was "sair haddin doon by the bubley jock!" From the effect of an angry turkey-cock or "bubley" on weaklings like "Jock" and children generally, I think we may conclude that in this case also the prominent lines, both up and down, retain each their own proper signification.

The same principles apply and hold true in regard to man. As I have already said, we instinctively appreciate and balance the characteristic lines in the face and attitude, and judge accordingly. This part of the

subject, however, we will further consider afterwards, when we have come to analyse the expression in some of the common passions.

### *The Ogee Line.*

We have just been considering the question of differently directed lines in the same animals, but there is one important line, formed of a combination of the horizontal, down, and up lines following each other in succession, and forming the well-known ogee line, which we must notice. It is like the letter S, drawn out thus ∫. This remarkably characteristic and beautiful line is often found in nature, as, for instance, in the branches of trees—as we shall see presently—in the outlines of hills, and, most conspicuously of all, in the waves of the sea. It appears to be nature's line of rest; for if an abrupt

cone or a sharp-angled bank of earth be exposed to the influence of the weather, a nice ogee outline is always sooner or later formed. Now this ogee line must evidently be composed of the three sets of lines—horizontal, down, and up—joined together. But does not this same line combine, in its own particular expression, all the qualities which artists affirm to be indicated in the art law of lines? In my humble opinion it certainly does so. Let us consider a mature and well grown lime tree, in the branches of which we see very clearly the well-known sweep of the ogee line. A perfect lime is the most graceful tree we have, and a great favourite both in private and public parks. Now this tree shows a double set of ogee lines, first in the chief boughs, and then again in the secondary branches or sprays which spring from these. Most people will agree

with me in admiration of the lime tree, and if the branches are carefully examined, I think it will be admitted that it is the graceful flow of the ogee lines to which we are chiefly indebted for its beauty. We must all acknowledge that in this tree we see a certain amount of repose, of pensiveness, and of energy indicated, which we sum up by saying it is very graceful, a term which appears to embrace all these qualities. The same feeling is suggested in some degree by the horse-chestnut in winter, which also shows the ogee line in its branches at that season. In summer these are hid by the foliage, and then it looks a mere gigantic cabbage. Now this feeling of grace is not experienced by looking at the oak, elm, or sycamore; for, though these have a marked beauty of their own, they do not give rise to the same feeling of beauty as the others

mentioned, or as the aged ash also frequently does from the same cause, namely, the drooping of the branches to form the ogee line.

The ogee appears to be much appreciated by ladies if we may judge by their contour. In the last fifty years, the perpendicular style of skirt at the back has never remained long in fashion, but different appliances have again and again come into use, in order to protrude the skirt behind. Now the constant recurrence of this fashion is a proof of the universal admiration for the ogee line, for it is in order to produce this beautiful outline that the various forms of "dress improvers" have been worn. I cannot help thinking that, if ladies would recognise this fact and study this admirable line, it would save some of them from indulging in the absurd exaggerations we

have sometimes seen, and which entirely destroy all grace.

## *Irregular Lines.*

As to irregular lines in general, I think it will be found that they are wanting in any particular expression, unless it be that of suggesting a troubled and unhappy, as well as an awkward and ungraceful, feeling to the mind. This may be proved in an interesting way by examining an oak tree in winter, in some exposed situation and on very poor soil. The main branches of an oak in such circumstances are crooked and angular, and by no means beautiful. Any admiration we attach to the tree itself is probably owing to the brave way it has overcome its hardships, and developed its character. And, perhaps, hence it is often

called the "sturdy" oak. But examine the same tree in summer, when its crooked lines are hidden by the foliage, and now it has probably only a calm dignity given to it, by the apparently horizontal lines of the branches.

## *Application of the Art Law to Man's Attitudes, Gestures, and Habits.*

Let us now proceed to inquire how far the artistic law we have been considering applies to the attitudes, gestures, and habits of man.

It will be admitted on all hands that a tall man or woman has an advantage in appearance over those who are diminutive in stature. When such tall, if well built, persons enter a room full of people, and if their facial expression at all corresponds

in dignity with the suggested energy of their persons, we describe them as having a *presence*. That is to say, the appearance of such a person gives us the impression of importance, and those who don't know them will most probably ask, "Who is that?" while any such remark is seldom made regarding a person of ordinary stature and appearance.

Take also the case of any intelligent, strong, and active man. Here, so far as his general bearing is concerned, we find almost every line tending upwards, and consequently indicating energy. He walks with his head erect, his chest prominent, his step elastic and firm, and this attitude is instinctively exaggerated if his wish is to express defiance.

Now, as a contrast, consider the down lines in the aged and infirm ; the depressed

head, the fallen cheeks, lips, and chin, the rounded shoulders, and the stooping gait; these, taken along with his tottering step, suggest that he is weary, worn, and waiting for his long rest.

Even in the case of a robust, able man, if he has been guilty of some act which produces the emotion of shame, immediately his lines harmonise and he instinctively droops his head, half closes his eyes, slightly bends his body and rounds his shoulders.

In ladies also, you observe the erect carriage of the strong, able, self-reliant, and experienced woman, in contrast to the shrinking appearance and undecided step of the timid or dependent. And, as a further proof of the expression in lines, it may be remarked, that it is only the former class of ladies who can appropriately wear a head-dress in which there are marked up lines.

This is, no doubt, because it is only in such cases that the energy of the ornament harmonises with the energy of the face and of the general bearing. As evidence that this is probably the correct explanation, consider for a moment the effect of a "Gainsborough Hat" on a gentle, young, timid girl, whose upper eyelids slightly droop, and whose mouth is somewhat open. A hat of that kind would be pronounced ridiculous in such circumstances; and yet how becoming it is in Gainsborough's celebrated picture, "The Duchess of Devonshire," which has given origin to the name of that particular head-dress. But, on the other hand, let the possessor of this same gentle young face braid her hair, and discard up lines in her head-dress; and now she probably has a very distinctly marked beauty of her own, though not of the "Duchess of Devonshire" type.

I am old enough to have seen the truth of this principle demonstrated in more than one of my lady friends.

Some years ago, brides, compelled by the tyranny of fashion, always wore high wreaths on their heads; and the result, in most instances, was the reverse of pleasing. The energy of the wreath did not harmonise with the modest, probably timid, and inexperienced expression of the face. In some of these friends, after twenty years of earnest effort in life's battle had left its stamp upon the countenance and given to the features decision and self-reliance, a high head-dress then proved to be their most becoming ornament, and harmonised admirably with their queenly carriage and matronly beauty. I think most ladies will agree with me that it is only the bright, cheerful-looking faces among their elderly lady friends who can

becomingly wear curls, or caps with sprays of artificial flowers showing up lines. And in all cases, as I have already said, the energy of the head-dress ought to harmonise with the energy of the face to produce a pleasing result. An incongruity in this respect invariably produces an awkward and ungainly effect to onlookers.

The harmony between down lines and grief is conspicuously seen in the head-dress of a widow. When she dons her peculiar cap, she almost always braids her hair, whatever may have been her custom formerly; and in the very few instances where we see curls and the widow's cap combined, the result is generally thought to be incongruous.

On the same principle, when a lady parts her hair in the middle, a slight down line is formed on either side, and these give a

gentle expression. But when she parts it at the side, a horizontal line is formed over the forehead, which is suggestive of more firmness than the former. Now there is a general concurrence of opinion that hair parted at the side always gives a lady a somewhat mannish look.

And exactly the same principles apply to gentlemen's hairdressing. Most men wear their hair parted at the side; and this looks calm and peaceful on account of the horizontal line over the forehead. When, however, it is parted on both sides, and the central portion brushed upright, a decidedly energetic, if not even pugnacious, expression is produced. But again, when it is parted in the middle and smoothly laid on either side, increased gentleness of expression is the result; and the gentleman may be congratulated if this expression does not go

even to the length of weakness. Young curates and army officers often adopt this style, probably because, in the former it harmonises with the gentleness and peacefulness of their profession; and in the latter to produce a powerful contrast between their gentle appearance and the heroic nature of their calling.

Our habits in respect to the style of the moustache also offers a further proof of the general appreciation of the expression of lines. Gentlemen who affect the fierce or fire-eater character generally give their moustaches a decidedly upward direction by the help of pomade; whereas, the languid swell of the "greenery, yallery, Grosvenor gallery" type appears to prefer them long and flowing downwards. Men with a calm, inscrutable face again, I think, generally adopt the conspicuously horizontal line, as was the case with the late Emperor of the French.

The profession or calling of a gentleman appears to have an influence in the selection of the style of hairdressing he prefers. Artists, poets, and musicians very often wear their hair long and more or less curled. This is perhaps not to be wondered at when we consider that these gentlemen are worshippers of the beautiful, and that undoubtedly long hair is a beautiful object both as to form and light and shade. Short hair again, though it has no beauty of any kind, is easily managed, and therefore those gentlemen who are absorbed in business ignore the beautiful, and adopt the less troublesome style of a shorter crop.

So fully are the effects of down lines appreciated by man, that in times of sadness we make the lines of our ornaments to harmonise with our feelings, and give them a downward tendency. This is seen in the

plumes on our mourning coaches, and in the long tails and manes of the horses which draw them; in the hangings of our hatbands at funerals—a custom now happily disappearing; and in the "reversed arms" at a soldier's funeral.

The familiar habit of a nod of the head—a down line—as a ready assent, or a cheerful, free and easy salutation; and the equally common practice of wagging the forefinger or shaking the head—horizontal line—as a negative, may be brought forward as proofs to the contrary of the art law. When we reflect, however, on the former movement, it will be conceded that the nod is only an abbreviated bow, or indication of submission to the force of a statement if in conversation, or, in salutation, an acknowledgment of the superior distinction of your friend. I remember to have observed this movement at

a railway station, when some ladies were seeing a lady friend off by train. When the carriage moved away, one lady gave a familiar nod, a second bent the head more slowly forwards and downwards, while a third bent the body slowly forwards as well as the head. These somewhat different movements all, doubtless, originated from different degrees of familiarity with the friend who was leaving, but all were evidently intended to convey the same general feeling. I had long been puzzled to account for the "nod" as a sign of assent, when theory rather suggested a horizontal movement as the most appropriate. But, at length, on observing the behaviour of these ladies, the truth flashed upon me; and I felt greatly obliged to my unknown friends for an explanation of, at least, one difficulty, in the application of the line theory to practice.

As to the wagging of the forefinger, or shaking the head—horizontal lines—as a negative, I would remark that there are many different degrees of negative, ranging from the scowling, fierce, defiant "No," to the peaceful friendly wag of the forefinger, or the equally peaceful warning of dissent by a shake of the head, often accompanied by a slight frown. I cannot see, therefore, that these different movements offer any evidence against our art law, though at first sight they appear to do so, but are rather further proofs of its universal applicability; for we find that it is only when we are peacefully inclined that we make these horizontal movements either by the finger or the head. Indeed, we often droop our eyelids also when making these movements; and this, in addition to our peaceful negative, appears to express our regret or sorrow at having to differ from our friends.

It appears to me, from these and many other illustrations, which could easily be brought forward, that the art law, regarding lines, applies as truly to man's habits, in this country at least, as it does to plants and the lower animals.

## *Proofs of the Minuteness to which Observation may be carried.*

Before attempting to apply the art law to the expression of emotion in the human face, it may be well first to consider of what exceedingly fine and delicate lines the countenance is formed; and how very minutely, though unconsciously, we observe these, as, indeed, we do every object in which we are much interested, and which we have ample time and opportunity for studying. For instance, there is the familiar fact that

though we all have so many acquaintances, and every one has the same features in common, yet we seldom mistake one person for another. Or, again, though to us there are great differences in appearance and expression among the inhabitants of the various nations of Europe, yet negroes, seeing white people for the first time, can discover no difference between them. And it is as curious to find the converse of this also is true, namely, that, when a white person sees negroes for the first time, they all appear alike to him.

A very good proof of the extreme minuteness of observation to which one may be educated is afforded by the German method of teaching the dumb to speak. We, who hear, all know that the lips do move when a person is speaking, but not one of us could tell what a speaker is saying by observing

the motion of his lips. Yet the dumb who have been taught the lip language can do so to a marvellous extent.

Another illustration is, when a person unacquainted with sheep inspects two different flocks, probably the only distinction he will see between them is that one is black-faced and the other white; or that one has horns and the other has not. But it may astonish such an one to find that a well-trained and experienced shepherd knows all his own sheep, and can distinguish each one, not only from one of another flock, but from another member of the same flock; that is to say, that to the shepherd's eye each sheep of his large flock has its own individual appearance which he can readily recognise. A lady told me a story illustrative of this point which I may give here. Her father —a Highland gentleman—had four grown-

up daughters, who were not by any means considered like each other. These four ladies walking on the hill one day came up to the shepherd, and one of them remarked: "Why, Tom, they tell me that you know every sheep you have in your large flock, and can distinguish any one from another; surely that is nonsense!" Tom replied, "It is no nonsense; of course I can. Just look at the twa yows there—what a difference between them! Onybody can see that. If it was to tell you four leddies ane frae the ither, that wad bate me, for you are a' as like as peas!" Tom, in fact, was in the daily habit of watching sheep, and consequently he had observed them minutely; while he only saw ladies occasionally, and, therefore, had not thoroughly studied them.

Now most of us, even artists, are in a

similar position with respect to much in the world, as "Tom" was with respect to the young ladies. We all know some things very well indeed, and have examined them minutely; but of the true appearance of much else around us we are wonderfully ignorant. There are many artists who can paint very good landscapes, and yet make a sad mess of figures, and *vice versa.* Even landscape painters take very different views of nature, as is proved by an artist of a modern school, who appears to see nature in a light with which few people can sympathise. And we have a conspicuous case of another distinguished artist who can paint some animals with marvellous truth, and yet, when he attempts to depict others, every person condemns them at once. Such cases are doubtless the result of restricted observation.

An incident which I remember offers

another rather amusing illustration of a mistake from not observing minute points in animals. A medical friend, not by any means "knowing" in horses, though he considered himself to be so—as, indeed, most men do—wished to part with the horse he had, and purchase another. For this purpose he went to a country "fair," and soon sold his horse to a dealer. Within half an hour afterwards, when looking out, along with a friend to assist him, they saw a horse trot past; my friend exclaimed, "Oh! there goes the very horse for me!" But, to his astonishment, his "horsey" friend said: "Why, Doctor, that is your own old horse, which you have just sold!" A joke not forgotten for many a day.

It may be worth remarking, also, that dogs must often possess the power of minute observation we have been considering, for

Mr. St. John states in his "Wild Sports in the Highlands," "It is a well-known fact, in the management of sheep in the Highlands, that a good collie will hunt down any sheep pointed out to him. No matter how closely that particular sheep may be crowded in the general flock, when they are scattered, the dog will at once recognise it, and continue to chase it till he has it prostrate beneath him."

It is very probable that birds also must have this extremely minute observation, so as to distinguish each other readily. If it were not so, those which pair could not recognise their mates; nor could parent birds supply food in equal proportions to their young.

A person, to be a successful breeder of live stock, must have a keen eye to the most minute points in the animals, which

are entirely overlooked by the merely occasional observer. And it has been by attention to these points, and careful selection on account of them, that the various distinctly marked breeds of sheep and cattle have been brought about. Now, though many of us may be careless observers of live stock, yet we are all pretty sharp scrutinizers of the expressions in the human face ; and this, for the very obvious reason, that in a great degree it is by our correct reading of the expression depicted in the face that we form an idea of the emotions of the mind within. Of this there can be no doubt, and we have all experienced the difficulty of reading the emotions in certain calm faces where there is little or no play of the features. To a medical man these are very difficult persons to manage, for, of course, he has to guard against over

exalting or unduly depressing the hopes and fears of his patients. I well remember, many years ago, the face of a beautiful young mother who gave me much trouble in this way. Her features were so beautiful and so delicately chiselled that she might well have sat as a model to one of the ancient Greek masters. She was also well fitted for this distinction on account of the almost complete want of expression in her face, the Greek masters not being much given to depicting emotion. I had observed this young face in many circumstances both of joy and grief; but I never saw a single line change, until, quite overcome by her feelings, she would suddenly burst either into tears or laughter according to the occasion. Very soon, however, she would overmaster such an unusual exhibition of feeling on her part, and her features

would then suddenly go back into their former calm, inscrutable placidity.

It is equally difficult to know what to make of people who express an emotion in the face, which is non-existent in the mind. I once knew a gentleman who, at first, puzzled me in this way. When conversing with him, even on some serious subject, a broad grin would unexpectedly appear on his face, which disconcerted me not a little. After some experience, however, I found that he had a bad habit of laughing with his face, when there was no mirth in his thoughts, much in the way that very young babies do, when they are supposed to enjoy the benefit of an "Angel's Whisper." We feel much more at ease when the emotions depicted in the face are true to the mental emotions experienced at the moment. Though such faces are ever changing, and

are thus the bane of photographers, yet friends with faces of this kind are easily understood, for their feelings, in a general sense, can be at once perceived.

## *The Art Law as applied to the Expression of Emotion by the Features.*

In applying the art law of lines to the human face, the reader must not imagine that I am attempting to lay down any rules in physiognomy. That is a subject on which I do not pretend to enter at all. Physiognomists arrogate to themselves the power to interpret character from the formation of the fixed features. This is no doubt possible to a certain extent, but this branch of the subject would require long and careful study in the special direction. My concern is to deal with the

fleeting expressions, rather than with those that are permanent. The emotions of the mind have no immediate effect on the fixed features, whereas they invariably excite contraction of some of the facial muscles, and thereby produce an expression. In a previous paragraph, I have remarked upon the great interest with which we unconsciously watch these changes of the countenance; observing that from every change we infer mental energy; and that this energy is invariably accompanied by some uptending lines. These expressive lines are necessarily extremely minute, and are chiefly to be observed in the muscles around the eyes. It would appear that we are so accustomed to regard the lines in the face, that we are almost always guided by them in forming our first impressions as to character or disposition,

For example, you are introduced to a lady with well marked vertical lines between the eyebrows. Intuitively you at once suppose her to be an earnest woman, on account of these lines, as they show mental energy. This is a first impression; your prolonged acquaintance with her will, in all probability, prove the truth of your intuitive reading. Or take another case with a down line. You are introduced to a gentleman with horizontal eyebrows and a mouth with plain lines, and few or no curves. You will immediately conclude that that man has a good share of temper, is rather stolid, and in fact rather a sour-looking individual. This is the first impression resulting from the form of the eyebrow and the mouth. If you enter into conversation with him, his face will brighten up, and his smile may be most pleasant,

and your opinion of him will be improved. Still for some time you don't forget the first impression, and you keenly observe how that agrees with your fuller knowledge of him. There is a great difference between appreciating and analysing a general effect; many persons will be able to do the one who cannot in the least do the other. For instance, how many people will enjoy the beauty of a garden on a picture, who cannot point out on what that beauty chiefly depends. So it is with the expressions in the countenance; many will agree that Mr. So and So has a certain particular expression, but probably no two of them will concur on what features their judgment is grounded. If a person, however, is in the habit of studying the features, it is not difficult to point out the particular forms which have guided his judgment.

And yet we must not forget that these rapid readings are only first impressions, and that on better acquaintance we may find that the lines which suggest the impression, especially if these are in the permanent forms, are not true indications of the character, but may be merely anatomical peculiarities or hereditary features. In the case of lines which are produced by the action of the muscles in the face, as in the fleeting expressions, I am inclined to believe that these seldom mislead us as indications of character at the moment, because they are the result of the mind acting through the brain on the nerves and muscles, and therefore they must be an index of the mind itself to a considerable extent. Now, since our facial lines change with every emotion of the mind, it is evident that the alterations in these lines must be very small indeed.

For instance, if a friend calls upon us after a long walk, everyone will readily remark that he looks tired. Now, this fatigue is undoubtedly suggested to our minds by down lines in the friend's face, owing to cardiac and nervous exhaustion. Yet how few would be able to particularise the lines on which this wearied expression depends. It is therefore no wonder that it is difficult to point out the uptending lines which give energy, or the downtending lines which give sadness in some of the more complicated passions. Still in the more simple and uncomplicated emotions, this is in general very easily done. On this point Sir Charles Bell says: "In all exhilarating emotions, the eyebrow, the eyelids, the nostrils, and the angles of the mouth are raised; in the depressing passions, it is the reverse." Further, to watch the effects of the lines in

the face, Sir Charles advises,—"Like Peter of Cortona, sketch a placid countenance, and touch lightly with the pencil the angle of the lips, and the inner extremities of the eyebrows. By elevating or depressing these, we shall quickly convey the expression of grief or of laughter."

I remember seeing, in a very marked manner, the effect of lines on the forehead. The subject was a lady suffering from dyspepsia, which gave rise to severe irritation of the nerves, so that her life was often utterly miserable, although she was blessed with every domestic comfort and luxury. When suffering at her worst, this lady raised, as far as possible, the inner extremities of the eyebrows, which gave them a conspicuous downward direction from the centre outwards. Then as she also contracted them severely, this produced vertical

lines on the forehead, which extended upward and joined some horizontal, irregular, and troubled lines on the middle of the forehead; these then curved downwards and outwards to the cheeks, thus presenting no slight resemblance to a weeping tree. She certainly looked the picture of misery; and this was expressed chiefly by these down-curving lines on the forehead and temple, and the sloping eyebrows. When visiting this lady, I could always tell at a glance whether she was feeling better or worse. On looking carefully into the mode in which this intensity of the misery-expression was produced, I found it to be owing to the more pronounced distinctness of these lines. Her face always indicated a certain amount of trouble by tortuous lines across the forehead; but when her sufferings increased, these lines invariably became more

pronounced, and, in particular, they became continuous with the two vertical lines starting between the eyebrows. We thus see that the interpretation of each set of lines in the art law holds true in this case, as I believe it does in almost every other expression. Further, this interesting case shows that we value and read the lines in the face, for the attendants of this lady could all as readily interpret her expressions as I could; but it required careful and repeated examination on my part to discover on what the change of expression depended. On this point Sir Charles Bell says:—"As the natural tones of the voice are understood and felt by all, so it is with the movements of the countenance. On these we are constantly intent, and the mind is ever insensibly exercised."

Shakspere, ever true to nature, remarks,—

"Yea this man's brow, like to a title-leaf,
Foretells the nature of a tragic volume."

Especially is this the case in those who habitually indulge in troubled thoughts. Worrying almost always gives rise to irregular or troubled-looking lines across the forehead. Persons with such lines, well marked and always present, almost invariably are much occupied in thought with some difficulty. The late Mr. Darwin had them very distinct, if his portraits are correct—no doubt the result of puzzling over the many unsolved problems which occupied his mind. You almost always find them too in those people who are filled with anxiety and distress because their friends will not act as they desire, nor will the world wag as they approve. They look on the wrong side of everything, and love to dwell on the crosses and conflicts of life, rather than on its beauties and blessings.

## *Lines of the Eyebrows and Eyelids.*

The eyebrows, as we all know, are very important features both in regard to beauty and expression. When nicely arched and sharply defined they add much to the beauty and brightness of a face.

Horizontal eyebrows, even if otherwise good, are not pleasing, and always give rise to a suspicion of temper, since, when a person is out of temper, he always frowns with lowered eyebrows. This suspicion, however, like some other suggestions from fixed features, may be unjust, since the horizontality may be only an inherited peculiarity, and not the result of frequent use in that direction. Frowning is one of the most common expressions, and is regarded by Sir Charles Bell as a proof of "intellectual

activity." But when we examine the face during the act, we find that there are several degrees of this expression. The slightest degree is effected by a mere lowering of the eyebrow, usually accompanied by slight depression of the mouth angles. This may be regarded rather as a sulk than a frown. The next degree is when the eyebrows are knitted, as well as lowered: and then you have again the two upright lines on the forehead added, which give energy to the former expression. The third degree is when these vertical lines are strongly marked, and the muscles around the eyes are severely contracted; and now greatly increased energy is indicated, and we look quite fierce. This, I think, shows that these vertical lines between the eyebrows, small though they be, add greatly to the energy of the expression; and it appears to me that

this can only be accounted for by their direction being upwards—the natural base being the eyebrows.

The reader, perhaps, may think that I am giving too much importance to these insignificant little vertical lines. But if so, let him examine Plate 3, Fig. 6, in Mr. Darwin's book on "Expression, etc.," and he will see at once how much depends upon these, apparently, trifling lines. In the face there represented, the galvanic battery is producing contraction of the laughing muscles; and if we cover the contracted eyebrows and the vertical lines between them with a piece of paper, the expression of laughter appears to be quite natural. Even when we cover the vertical lines alone, the expression is very much softened, and, though not quite natural, is yet not nearly so unnatural as when the piece of paper is re-

moved, for then we have laughter with the mouth, and a painful frown with the eyes. Examine also Fig 4 of the same plate and cover the vertical lines alluded to, and you will at once find how greatly the expression is softened when these are not shown. Wendell Holmes speaks of the "mean cares which give people the three wrinkles between the eyebrows." But, in my experience, mean cares generally produce cross, irregular lines on the forehead, whereas the vertical lines are found in many earnest people who take their duties seriously.

When the eyebrows are seen to be slightly elevated, and combined with an active, open eye, they give an agreeable energy and brightness to a face. When this slight elevation, however, is combined with drooping eyelids, they then give intensity to this down line, and an expression of sadness or

great weariness is the result. Greatly raised eyebrows produce an expression of surprise, as Mr. Darwin has fully explained. But when this elevation is constant, they then would appear to express a certain degree of weakness of character, with probably a want of decision, which, in fact, would be the result of a constant condition of surprise. Strangely enough, the late distinguished general, Lord Clyde, had this persistent elevation of the eyebrows very conspicuously marked, and, therefore, in his case, their usual indication must have been wrong. The great ability and brilliant career of Lord Clyde were quite incompatible with a want of decision in his character. The peculiar feature may have been inherited, but I am not sufficiently acquainted with his character and history to attempt any explanation of the discrepancy between his line

indications and the proved power of his mind.

In some old people the hairs of the eyebrows grow long and irregularly. Such bristling and bushy eyebrows are apt to suggest an irritable, fidgety, and exacting expression to the face; an opinion possibly directly the opposite of the real temper of the individual. Yet this shows how easily our judgment is swayed for the moment by trifling appearances in accordance with the prominent lines.

That the eye and its surroundings are by far the strongest element in the expression of the face is, I think, shown by those who wear beards. These men show no want of expression when you are near them; though they certainly do not show so much as when the mouth, chin, and cheeks are exposed.

It is wonderful to find how extremely

minute the lines about the eyes are, and yet, as we see to a large extent, these determine the expression. The line of curve, both of the upper and under eyelids; the relative position of the inner and outer angles; the size of the eye and its rate of movement; the setting; the chiselling; all have a most important bearing on the expression. This last quality is probably, to some extent, owing to the amount of fat present in the tissues around the eye; for, irrespective of any particular tendency of the constitution, people, whose minds are often in a state of tension, have their eye muscles correspondingly often in action, since we constantly see that they sympathise with the mental condition. Consequently, in such people the muscles will be the more developed, and less fat will be accumulated; hence the lines will be sharper, and observers will infer more energy.

In lazy or phlegmatic people again, the muscles around the eye, not being so often in use, will be the less developed, and there will be a larger amount of fat deposited, the presence of which will cause the lines formed by the contraction of the muscles to be less sharp and defined ; and less energy will thus be indicated.

That it is the lines surrounding the eyes and not the eyeballs themselves which chiefly contribute to expression, I feel convinced. The fold of the upper eye-lid in particular is a most telling line, and when it is thin and sharply defined, it always gives energy and decision to a face. In indolent, languid people you generally see this line thick, heavy, and not sharply marked. More especially is this the case in those people whose chief pleasure in life appears to be eating, and drinking beer. In men again who live a

temperate and earnest life, and who have long had others under their charge along with great responsibility, you almost always find the upper eyelid fold thin and clearly defined.

Another proof that it is the lines around the eye and not the ball itself which give expression, is found in those who wear a glass eye. In this case, when the two eyes are acting in the same line of vision, you cannot discover the artificial eye at all if it is skilfully imitated, no matter what emotion may be experienced. It is only when a side glance is made, that we can perceive that the one eye may be artificial from its not following the movement of the natural one.

The expression of sweetness and lovableness in certain eyes is probably chiefly produced by their size, their delicate setting, their slow movement, and the graceful

sweep of the line of the upper eyelid, which, in well-marked faces of this kind, often approaches the *ogee* line. Beautiful curves mean sweetness, elegance, and grace in the human features, as well as in vegetable forms.

If you carefully examine the photographs of beautiful women, you will probably agree with me that in them the upper eyelid is perhaps the most important line of expression in the whole face. Should this droop in the least degree, so as to give a horizontal line, it invariably suggests pensiveness; and it depends upon the combination with other lines whether that pensiveness goes the length of languor or only of gentleness.

Again, when the upper eyelid is even slightly raised above the iris, it gives energy and brightness to the face, and it depends

upon the combination of the other lines whether that energy is too strongly expressed. Some persons have the upper eyelid drooping to an extreme degree, either as a symptom of disease, or a natural peculiarity. These we regard merely as instances of the distortion of a feature, and not as indicating any particular mental characteristic.

## *Lines of the Nose.*

Regarding the lines of the nose, I would only remark, that when the point is even slightly upturned, giving the well-known "*nez retroussé*," we almost invariably associate this with energy, and sometimes with impudence, which, however, is merely badly-directed energy. This class of nose may be an inherited feature; and certainly

is not generally produced by any action of the muscles of the face. Yet I am inclined to believe that persons showing the "*nez retroussé*" not only look energetic to us, but that the associations connected with it are very often right, however it may be accounted for.

The raised nostril also affords another proof of the influence of uptending lines; for, however coarse and aggressive it may appear to us, there can be little doubt that it gives energy to a face. The raised or distended nostril, however, may be the result of repeated muscular action, and differs from the "*nez retroussé*" in this respect. Ladies who have these well-marked up lines of the nose along with a prominent chin, thin lips, sharply defined lines about the eyes, and the vertical lines between the eyebrows, are sure to be re-

garded as energetic, aggressive, and determined creatures by the male sex generally; admired and selected for matrimony only by such amiable fellows as our old friend "Mr. Toots."

The drooping nose, being the reverse of the *nez retroussé*, always gives more or less gravity to the expression.

The lines of the nose, of course, generally harmonise with those of the face in regard to quality; and when we see these delicate and fine, they, being so easily seen, at once impress us with a sense of beauty.

## *Lines of the Mouth.*

The mouth, though not so expressive as the eye, comes next in this respect, and its various forms are constantly associated with particular mental qualities. Thus the large,

coarse mouth, with thick lips, is regarded as indicating strong animal passions; while the small, sharp-looking mouth, with thin lips, is thought to bespeak firmness of will. There can be little doubt, whatever may be the physiological cause, that a strong mental resolution is generally accompanied by compression of the lips; and hence there may be less fatty tissue deposited in lips which are often compressed, as I have attempted to explain in the case of the eye. Some persons are much in the habit of contracting the muscles of their lips, while engaged in any small work with their hands. Indeed, I have known a person, who, when thus employed, had always to stop short from time to time and rest, till his *lips* had recovered from their fatigue!

Should the angles of the mouth have ever so small an inclination downwards, an

unhappy expression is almost certainly produced, as may have been expected on the line theory. We are all so ready to recognise this, that nothing is more common than to hear the remark, "He looks very down-in-the-mouth to-day; what is wrong, I wonder?"

At the same time we not unfrequently find an individual with the line of the mouth running downwards at the angles, so that the form altogether is nearly a semi-circle. Though we are apt at the moment to give the usual interpretation of "down-in-the-mouth" to this particular form, still it may be only an inherited feature, and not an indication of the state of the mind, as I have occasionally found the case.

It is often said that the effect of an open mouth is to give weakness to the expression. But on more minute observation it will be

found that weakness is shown not so much by an open mouth, as by a fallen lower jaw. Should the upper lip be short, the mouth may be said to be open, at least the teeth are seen; this does not suggest weakness, but merely gentleness, though weakness is very decidedly shown when the lower jaw falls and the mouth thereby opens.

We may observe the effect of a slightly open mouth in Mulready's well-known picture, "The Wolf and the Lamb," for he there gives the gentle boy a short upper lip, thereby exposing the teeth. This forms a powerful contrast, in gentleness, to the fierce boy with his mouth shut and lips compressed. Geefs also, in his beautiful statue, "The Lion in Love," produces a wonderful effect of gentleness in the lion, by making his mouth slightly open; while a notable

degree of energy is maintained by its raised muzzle, and earnest up-gazing eye.

Regarding the influence of a horizontal line of mouth on the expression, every person must surely have noticed how peculiarly uninteresting those faces are in which the mouth is a horizontal line or mere slit in the face. The reader, however, may here remark, that a mouth of this description appears to be an exception to the truth of the art dogma regarding horizontal lines as indicating repose. But it is hardly so, for in such mouths there is far too much repose indicated, and such a person looks stolid and unsympathetic. The finely formed mouth very generally shows "cupid's bow" on the upper lip; and as "cupid's bow" is composed of two *ogee* lines, hence its beauty. The middle of the bow, as every one knows, corresponds

with the middle of the upper lip, and from this point to the angle at either side is a beautiful illustration of the *ogee* line. There are some persons who, when they are in company, keep the angles of the mouth habitually slightly retracted as in the first stage of a smile, so that the upper lip is somewhat compressed on the teeth. This gives rise to a delicate upward curl at each angle of the mouth, running to the naso-oral line on the cheek. Such mouths are peculiarly suggestive of intellectual activity and appreciation. This I have verified frequently by testing the point with friends. This retraction of the upper lip is, of course, effected by a very slight contraction of the muscles, yet so much are we alive to any signs of energy that even this minute movement of the lip is readily appreciated by all; though I have

seldom found anyone who recognised on what feature their judgment depended.

## *Lines of the Chin.*

Regarding the chin it is almost universally acknowledged that a prominent or protruding chin is indicative of a firm, decided, self-assertive character; while on the other hand a receding chin is as surely suggestive of weakness of will and the absence of any energetic determination. Though these opinions are so generally held as truths in physiognomy, I have a strong suspicion that they have arisen on account of the feature being so easily observed, and that our intuitive reading of the influence of the direction of lines is so universal. Most certainly, I have observed many instances where the ordinary indications of character

from the lines of a receding chin were wrong. I therefore suspect that this opinion is only a first impression, as I mentioned in the case of horizontal eyebrows, and that these forms are mere anatomical peculiarities or inherited features and not true indications of character. But whether I am right or wrong in my impression, the character assigned to each form is a strong proof of the general belief in the indication of the direction of lines.

### *Lines in some of the Passions.*

Time and space will not allow of our attempting to analyse the lines of the face in all the varied and complicated passions of which man is susceptible; neither have I the knowledge or skill to do so; but let us take one or two of the more simple,

uncomplicated emotions, and see how far the theory regarding lines holds good in reference to them.

*Grief.*—Grief is expressed chiefly by the drooping eyelids, the fallen mouth, jaw, and cheeks, from relaxation of the muscles, and by the head being bent downwards, or to one side. But energy is given to the grief expression by a raised eye or knitted eyebrows, which produce vertical lines on the forehead, and also by raised and clasped hands.

In Correggio's celebrated picture, "Ecce Homo," in the National Gallery of London, the eyelids droop, the eyebrows are slightly lowered, the mouth is gently open, and the head inclines a little to one side, and downwards. Thus, sadness, gentleness, and meekness are the prevailing expressions in this exquisite picture. Now contrast

the lines in this picture with those in Sir Noel Paton's "Man of Sorrows." Here the face and eyes are upturned, indicating energy and sacred reverence. The horizontal wave-lines on the forehead suggest care and trouble, calmly borne. The slightly-knitted eyebrows further add to the energy of the expression, while the open mouth gives great gentleness. To secure resolute energy to the whole character, the artist has drawn the left hand firmly clenched. Thus by a delicate combination of expressions, a most admirable representation of the unique character of the Sacred Personage is delineated. The Divine character has been represented by the two artists from different standpoints, and each has succeeded in producing the appropriate expression in the circumstances.

Even in these two pictures, exquisitely

fine as the lines must be to produce so elevating and so sacred a result, yet they are, as we see, strictly in accordance with the law of lineal expression.

In children, grief usually ends in weeping; and many marked lines still tend downwards about the eyes and mouth, but are broken and rugged, and combined with short up lines of great energy about the cheeks, mouth, nose, and eyes, the latter being generally closed; so that the object would be absolutely repulsive to us, did we not sympathise with the depth and painfulness of the emotion displayed.

*Mirth.*—In smiling, the first action of the muscles is to draw the angles of the mouth outwards and upwards, so that the upper lip is pressed on the teeth, and a well-marked naso-oral line is formed if it did not exist before. Should the smile be

increased to a laugh, then the cheeks and upper lip are so raised that the naso-oral fold is strongly marked, and the upper teeth are frequently shown. In persons with a strong sense of humour, when the laughter becomes hearty, the cheeks are so greatly raised that the eyes are almost concealed, while they also show much energy and are said to twinkle. Shakspere well describes this appearance when he says,—

> "Some that will evermore peep through their eyes,
> And laugh like parrots at a bagpiper."

In such a face we generally find a series of radiating lines on the temples, the outer angles of the eyes being the centres. When these circles of lines are strongly marked in a face, we may always feel sure of a sympathetic listener to a good story.

They are in fact formed by the eyes having been so often contracted, and the cheeks so frequently tucked up in mirth, that they have become permanent; hence their indication of humour. Professor Mantagazza asserts that "crow's feet" are inevitable at forty. Possibly they may be generally recognised at that age. But the deeply marked lines which I have just described are seldom found except in those with a keen sense of humour, and are, if I mistake not, always produced by the cheeks having been often tucked up in laughter, as I have just said.

The raised cheeks and angles of the mouth appear to be essential to express laughter, but then, when they are so raised, they always give rise to a strong down line in the naso-oral fold, which also would appear to be a necessary feature in the expression.

By and by we shall find that such contradictory lines are the foundation of almost all amusing expressions.

*Devotion.*—In simple devotion, you have love and humility expressed by gently flowing lines, and few and delicate signs of action. But intensity is immediately given if the face and eyes are raised, or the hands clasped and raised, or the fingers extended and pointing upwards.

If humility were the paramount feeling in devotion, we should see the head bowed down and the eyelids drooping or the eyes closed, and the only sign of energy would probably be the clasped hands slightly raised. The kneeling position, which appears to be both natural and appropriate to devotion, still further intensifies the expression of humility.

*Terror and Horror.* — Dr. Duchenne

has given us photographs, reproduced by Mr. Darwin, which delineate the passions of terror and horror remarkably well. In the former, we see almost every line tending downwards, though with marked severity; the only up lines being the raised eyebrows. Whereas in the latter —horror—we have the fiercely compressed eye muscles; the knitted eyebrows, with their vertical lines; the irregular or distressed lines on the forehead; and the greatly distended nostrils. The significance of these lines will be found to agree with the analysis of the two passions. An individual showing such intensity of terror as in the first photograph, would fly from you like a madman.

In the other, horror, the energy of aversion is so awful, it would be well, with a view to safety, to keep out of his way. In

these instances, it will be acknowledged that the indications of lines, as stated in the art law, hold true, and so far as I have been able to analyse photographs and good drawings in which the more complicated passions were represented, I have found the art law of lines to apply in these as truly as in the simpler emotions we have already described.

*Anger.*—There are so many degrees of anger, and so very varied are the circumstances by which the emotion is called forth, that I will not attempt to analyse the different features in this passion. We may remark, however, in that form of it when we draw out widely the angles of the mouth, and thus show the teeth and develop strongly the naso-oral lines, that this form of the mouth is pretty much the same as in laughter. In anger, however, we have more energy indicated, and also the frowning

eyebrows, with the vertical lines on the forehead; whereas in laughter, we have the raised cheeks, and only lower the eyebrows and simulate pain if the joke is ridiculously poor, or the laughter is so severe as to effect the muscles of the chest painfully.

*Contempt.*—Mr. Darwin has given us an excellent account of this emotion, and also a photograph, in which it is beautifully expressed. I only desire to draw attention to the raised cheek and distended nostril, and how these give force to the unhappy element in this passion, as suggested by the lowered eyelid and depressed angles of the mouth.

It appears to me unnecessary to examine the lines in any of the other passions, as the subject would become too tedious for the general reader. It is clear, however, that since every passion can be expressed by the face, and each one of these expressions must

be produced by a combination of lines, so, from what we have seen, I have no doubt but the balance of energy and depression in each particular passion will be found to be in accordance with the balance of the lines in the face as asserted in the art law.

After all, however, it must be acknowledged that even the most experienced observer is able to read the expressions in the human face only to a limited degree. He may observe much thought in a certain face; but he cannot form an idea of the extent or success of that thought, or whether it amounted to genius in the possessor. In another face we may be sure that we observe great decision; but we know not under what circumstances it has been acquired, or the use to which it has been applied, or whether it has brought fame and distinction to the individual, till we learn something of his

history. Vice, again, may be well marked in a face, but we cannot tell to what extent the possessor may have indulged in his wickedness; or to what depth of degradation he may have descended. It is only the general character of the mental faculty, therefore, of which we can be sure, and not the extent to which that faculty may have been developed in the individual. Let any person carefully examine the portraits of the eminent men in the National Collection of London, and he will I think acknowledge the truth of these remarks. Again, if the reader has ever known a person who afterwards became a criminal, he will most likely have a remembrance of something disagreeable in his expression, and that will be the only link between his expression and his crime.

It will be observed that, in the preceding remarks on the expression of the passions, I

have confined my attention almost entirely to the connection between the art dogma and the expressions there considered. The late Mr. Darwin, in his work so often referred to, has carefully described all the various passions, and tried to trace their origin, their associations, and their physiological cause. Though he has succeeded to a great extent, yet much remains to be accomplished, as the subject is a difficult one. My object in this small work is to introduce a new element for consideration, not hitherto noticed by writers, so far as I know, so that future investigators may be enabled to carry forward the study to greater completeness. I trust that my observations may not be altogether useless in that respect.

## *Inharmonious Lines.*

In the course of any examination into the effect of the direction of lines, one rather curious outcome, which I have not seen noticed before, has been that exaggerated or inharmonious lines, or both, are the root of all amusing or ridiculous sights. At a pantomime or circus we generally find a good illustration of this, for clowns almost always tilt up and extend, by means of paint, the outer angles of their eyes; while they appear to draw down, by the same means, the angles of their mouths, and thus look ridiculous. Indeed, it is very easy to observe the effect of this irregularity of lines without paint; for if we press our forefingers near the angles of our eyes, and our thumbs near the angles of the mouth, and raise the one and depress the other, we at once see how absurd we look.

You may be sure of finding either some strikingly inharmonious or greatly exaggerated lines in the face of any person who has habitually a comical look, such as in the case of our old friend Punch.

I remember a boy in a reformatory who had a most comical expression at all times. He had a slight squint, and one eyebrow was always raised in such a way as to produce most amusing, irregularly curved lines on the one side of the forehead only. His mouth, too, showed many little cunning curves, irregularly distributed and impossible to describe, and the whole expression was irresistibly funny. On mentioning to one of the officers what a comical expression the boy had, he remarked, "His face is not more comical than his acts and sayings, for he is the funniest little fellow in the lot."

The same effect, resulting from inhar-

monious lines, may be often seen in the face of a thoroughly intoxicated man, where some of the muscles are partially paralysed, owing to the influence of alcohol on the brain. One side of the mouth, in such a person, is probably raised, while the other side is lowered; one eyebrow is elevated, and the other is depressed; one eyelid a little raised, and the other drooping much; his hat is probably placed on the back of his head—which in some mysterious way always gives a weak expression, except in sailors—and his gait is languid and uncertain. Such an object is too disgusting for grave people to laugh at, but children who are familiar with such sights, see and appreciate the effect of the irregularity and weakness of the features, and often laugh at, and tease such a helpless and repulsive creature.

## *Inharmonious Lines and Action.*

When to inharmonious lines action is added, particularly if this is varied, abrupt, and unexpected, the ridiculous effect is greatly enhanced. This point is also well shown in the case of the clown, but, perhaps not less so, when gentlemen are dancing a Highland reel with spirit. In this dance, as is well known, the gentlemen bend their bodies forward, lower their heads, raise their arms and hands, snap their fingers, bend their knees outwards, give a short, sharp "hooch" from time to time, while they diligently make short, rapid steps and movements with their feet and legs. The effect of the whole is so mirthful that it is impossible for anyone to look on with a serious face; and all the more so, when we

occasionally see some grave, if not reverend, seignior join in it as heartily as the youngsters.

The act of sneezing, which, physiologically speaking, is a very useful one, is always associated in our minds with the absurd; and such also appears to be the case with young children; for they are always astonished and often laugh at a sneezer. Doubtless this is from the rapidly changing lines from up to down, combined with the abrupt termination of the intense, and, to children, unmeaning energy displayed in the act.

Yawning, again, like sneezing, is a very irregular and inharmonious proceeding, for in this act we depress the lower jaw severely, so that the mouth is widely opened, while at the same time we contract many of the muscles in the upper part of the face, thus raising the cheeks, and more or less closing the eyes. Everyone feels how inelegant

and ungraceful yawning is; and therefore we instinctively cover the mouth with the hand, or make a violent contraction of the jaw muscles, at least when people are present, to hide our distorted features.

The gesture of shrugging the shoulders is a very peculiar one, and full of contradictory lines. You ask a person a question which he cannot answer, and he tilts his head to one side and a little downwards, elevates his eyebrows, droops his eyelids, raises and protrudes his lips, depresses the angles of his mouth, draws up his shoulders, puts his upper arms close to his sides, extends his fore-arms horizontally, and spreads out his fingers! Of course no one can make any meaning out of all those contradictory lines, and is puzzled which idea is exactly what the performer wished to convey. Mr. Darwin, in noticing this peculiar movement, states

that it is expressive of "helplessness or impotence"; but it appears to me more accurate to ascribe to it the idea of *puzzled.* It is exceedingly difficult to see how the act of shrugging the shoulders could have originated; but, from Mr. Darwin's extended inquiries, it appears to be common to man, and to have the same meaning everywhere. Mr. Darwin explains this gesture on the ground of "antithesis;" and though I fear many will not be satisfied with this explanation, neither can I see that lineal expression satisfactorily accounts for it, though it is certainly curious that the lines in the gesture should be in accordance with the artistic expression of them. Is it possible that the gesture may have arisen from a desire to express the absence of any one particular expression, either assent or dissent; while at the same time we wish to show that we have

given our mental energy to the point? The raised eyebrows, the protruding lips, the angles of the mouth drawn down, and the shoulders raised, are proofs that the performer is giving mental energy to the question; his drooping eyelids, and angles of the mouth, his head tilted to one side and bent forward and downwards, and his upper arms pressed to his sides, are signs of regret; and lastly, his fore-arms, hands, and fingers extended horizontally express peace. This is the only glimmering of an explanation which I can conceive, though I fear readers will think it rather far-fetched.

There can be little doubt but that any great exaggeration of lines in an object excites the absurd in us, and if these lines are at the same time inharmonious or differently directed, then the object always looks ludicrous. The want of harmony in the ap-

pearance and gestures has a similar result. The most amusing storytellers are invariably those who relate their funny stories with a very grave face. In the boisterous or explosive laughter of an enthusiastic man also, we often see an enhanced expression produced by contradictory lines and gestures. While his face shows strongly the mirth emotion, accompanied by raised chest, and head thrown upwards and backwards at the same time, he stamps his foot on the ground, strikes his thigh or some imaginary object with his fist, and wriggles and bends his body forwards and downwards. This gesture appears to be natural to enthusiastic men in this country, and has the significance of appreciating a good joke with extra force.

We have seen, in a preceding paragraph, that in certain circumstances, differently

directed lines in the same face give intensity or a special direction to an emotion; now we are finding that inharmonious or exaggerated lines are at the root of all absurd appearances. It may at first sight not be quite obvious how apparently inharmonious lines can produce both results. On further consideration, however, it will be found that there is nothing incompatible in the assertion. In both conditions, the lines of each direction retain the significance assigned to them by the art rules, but in the case when hilarity is the outcome of their presence, there is the important element of exaggeration added. In the case of the clown's face, the exaggerated down lines alone would look droll; but when the well-marked up lines are added, energy is given to the effect of the down lines, and he then looks quite ludicrous. It will be admitted

that the clown, with his peculiar face lines, even if engaged in devotion, would look very funny, though reverence for the situation would prevent us from indulging in the suggested mirth of his face.

In the gesture of shrugging the shoulders, the contradictory lines there appear only to produce the expression of puzzled; and this is probably owing to the fact that, though there are many contradictions, there are no exaggerations of the lines in this gesture.

In dogs, even, we sometimes see a comical effect produced by inharmonious lines. Take a dog off the chain for a walk, and, if he has scope, you often see him dart off, with his head and ears as if at rest, his mouth closed, his forelegs natural, but his hindquarters crouching, and his tail between his legs. In this absurd fashion he

describes a series of semi-circles at his greatest speed—a sight always amusing, and at which I have seen a child of two years of age laugh very heartily, while not altogether uninfluenced by fear. Though this peculiar performance on the part of the dog is very amusing for us to look at, I suspect it is the result of irritability of the muscles from long continued inaction, rather than from any sense of fun. But whatever may be the explanation of the movements described, the house dog clearly *intends* to be amusing when, on your starting for a walk with him, he lowers his head, and turns it rapidly from side to side; curves his body quickly, also to alternate sides; wags his tail energetically, often sniffs loudly, and, making small semi-circles, repeatedly springs his forefeet off the ground, as if he were about to perform a series of somersaults!

There is evidently a great similarity between the dog at such times and the antics of a child when overflowing with happiness. Unless you are in a very deep brown study, you cannot but smile and snap your fingers in sympathy with the dog at this illustration of his mirth of action, any more than you can gravely look on a spirited Highland reel being danced. The antics of the dog just mentioned, and the partners in a reel, appear to me to be quite analogous. For though not organised to the same degree, or possibly enjoyed to the same extent, still the movements on the part of the dog appear to result from a certain human-like quality, or capacity for mirthful happiness, and to be expressed when the nervous system is overcharged by emotion in much the same manner as by men when dancing a reel, or by children when in great glee.

The more we watch the movements of dogs, the stronger becomes our conviction that we can read most of the emotions they wish to convey by their lines and movements. Mr. Darwin says: "When my terrier bites my hand in play, often snarling at the same time, if he bites too hard and I say, 'Gently, gently,' he goes on biting, but answers me by a few wags of the tail, which seem to say, 'Never mind, it is all fun.'" Mr. Darwin here appreciates the peaceful, horizontal line of the wagging tail; and well he may, for no mason was ever more true to his grip than a dog is to the indication of his wagging tail. A dog may snap at you when running off in terror with his tail between his legs; but when he wags it horizontally, we may safely trust him never to bite.

## *How to account for the Expression of Emotion in Man.*

It now appears to me fitting that we should make a few remarks in answer to the question—how are we to account for the expression of emotion in man and animals? Sir Charles Bell was the first to attempt a scientific explanation of the difficult problem, and in 1806 he published his well-known work on "The Anatomy and Philosophy of Expression." This is a most able, interesting, and searching investigation, and is regarded by Mr. Darwin as the "foundation of the subject as a branch of science," as well as a "noble structure." Sir Charles came to the conclusion that "in man there seems to be a special apparatus for the purpose of enabling him to communicate

with his fellow-creatures by that language which is read in the changes of his countenance. There exist in his face not only all those parts which by their action produce expression in the several classes of quadrupeds, but there is added a peculiar set of muscles to which no other office can be assigned than to serve for expression.

Mr. Darwin, who has also carefully studied this subject, asserts that Sir Charles is not quite correct in the latter part of this statement, for later investigation has shown that one important muscle—corrugator supercilii—on which expression very much depends, is not peculiar to man, as Sir Charles Bell supposed it to be, but that anthropoid apes also possessed the same facial muscles as we do. Professor Mantegazza states that "the expression of the white man is higher than that of the negro, and the latter higher

than that of the ape, because the facial muscles are more and more distinct in proportion as we rise from the anthropoid ape to the aryan."

At one time I had many opportunities of watching the various expressions in the face of a tame Brazilian monkey; and, so far as I could judge, the creature appeared to possess many of the same emotions as are found in man, and to express them in a similar way. On one occasion I gave him a soda water bottle of clear glass, containing a little Indian corn, and with the cork inserted very loosely. Jacko, at first, judging from his raised eyebrows and animated look, evidently thought he had got quite a prize, and turned the bottle round and round; but his eyebrows became more horizontal, and his look more grave, when he found he could not get at the corn.

Presently, on seeing the cork, he seized it with his teeth; and, finding that it moved, up went his eyebrows again, and he looked quite triumphant as he pulled the cork out. He now put his paw into the bottle, but, on finding he could not reach the grain, his eyebrows were again lowered, and he looked very serious and thoughtful, with his brows becoming more and more knitted. He kept turning the bottle round and round, inserting his paw from time to time to make quite sure that he could not reach the grain. His face showed all the working of his mind, the same as a human being would have done under a difficulty which he was unable to solve. Poor Jacko had not the intelligence to capsize the bottle, which the lowest type of man would readily have done in the circumstances.

After careful investigations, carried on

for many years, Mr. Darwin published his work on "The Expression of Emotion in Man and Animals," in 1872. This work is a marvellous evidence of patient research and cautious deduction, as indeed all Mr. Darwin's works are. It is full of observations, and information collected from all quarters, so well arranged and commented upon, that it forms a deeply interesting volume. The conclusion Mr. Darwin comes to is, that most of the expressions of emotion can be accounted for on three principles, namely—1st, "The principle of serviceable associated habits;" 2nd, "The principle of antithesis;" 3rd, "The direct action of the nervous system."

Regarding the first and third principles, I do not intend to offer any remarks. In the volume referred to, they will be found to have been worked out with all Mr.

Darwin's candour and thoroughness, and on many points are quite conclusive. It is in reference to his second principle, that of "antithesis," that I have been chiefly exercised, for I must confess that in this part of the subject Mr. Darwin has failed to carry conviction to my mind. Regarding antithesis, Mr. Darwin says:—"Certain states of the mind lead to certain habitual actions, which are of service, as under our first principle. Now, when a directly opposite state of the mind is induced, there is a strong and involuntary tendency to the performance of movements of a directly opposite nature, though these are of *no use;* and such cases are highly expressive."

I venture, though with diffidence, to doubt the sufficiency of "antithesis," as an explanation of the cause of expression; and in one case, at any rate, I hope to

be able to prove that a common movement on the part of dogs, which Mr. Darwin accounts for on the ground of antithesis, is in reality a most useful and serviceable expression. It is true that when certain muscles have been in a state of tension for a time, they become fatigued, and are then relaxed for the purpose of rest. Or again, if a particular state of the mind has been one of nervous excitement, accompanied by tension of certain muscles, and if this mental condition is changed to a calm placidity, or nervous depression, there will necessarily also be relaxation in the muscles which were formerly excited. But I have been unable to see any further fact in antithesis than the indisputable one that the nervous and muscular systems act in sympathy.

As an instance of antithesis, Mr. Darwin

gives the following :—"When a dog approaches a strange dog, or man, in a savage or hostile frame of mind, he walks upright, and very stiffly ; his head is slightly raised, or not much lowered ; the tail is held erect and quite rigid ; the hairs bristle, especially along the neck and back ; the pricked ears are directed forwards ; and the eyes have a fixed stare, etc. Let us suppose that the dog now suddenly discovers that the man whom he is approaching is not a stranger, but his master ; and let it be observed how completely and instantaneously his whole bearing is reversed. Instead of walking upright the body sinks downwards, or even crouches, and is thrown into flexuous movements ; his tail, instead of being held stiff and upright, is lowered and wagged from side to side ; his hair instantly becomes smooth ; his ears are

depressed and drawn backwards, but not closely to the head; and his lips hang loosely." Now, as to "antithesis" accounting for this change, with all due respect for so great an authority, I, for one, really cannot see it. The natural interpretation of the dog's movements appear to be that, in the condition first described, his nervous system was excited in preparation for attack. But, on discovering that the person approaching is his master, he suddenly experiences another kind of emotion, namely, that of shame or regret at his mistake; and accordingly he now expresses his shame and contrition, as well as affection, by crouching and flexuous movements. Mr. Darwin says, "Not one of the above movements, so clearly expressive of affection, are of the least direct service to the animal." Now to me it appears clear that they were

of this service—they produced in the master the emotions which the dog intended, namely, mercy and forgiveness; and it must be remarked that if a dog is a companionable creature, it is only after he is forgiven, in such circumstances, that he springs upon his master in joy. Should the master continue to look serious at him, he also will continue his meek attitude of crouching, till he produces the change in his master's feelings, which he apparently intends and expects. Explain it as we may, therefore, it must be admitted that, in this instance, the dog went through certain movements for the purpose of producing certain emotions in his master; and, moreover, that he succeeded in doing so. In a future paragraph I will attempt to show how this may possibly be explained.

As another instance of antithesis, Mr.

Darwin gives the case of a large dog of his own, who delighted to go out walking with him, when the dog showed his pleasure by "trotting gravely with high steps, head much raised, moderately erected ears, and tail carried aloft but not stiffly." When, in walking, Mr. Darwin visited his hothouse, he says: "This was always a great disappointment to the dog, as he did not know whether I should continue my walk; and the instantaneous and complete change of expression which came over him as soon as my body swerved, in the least, towards the path, was laughable. His look of dejection was known to every member of the family, and was called his hothouse face. This consisted in the head drooping much, the whole body sinking a little and remaining motionless, the ears and tail falling suddenly down, but the tail was by no means

wagged. His aspect was that of piteous and hopeless dejection. Every detail in his attitude was in complete opposition to his former joyful bearing, and can be explained, as it appears to me, in no other way, except through the principle of antithesis. Had not the change been so instantaneous, I should have attributed it to his lowered spirits affecting, as in the case of a man, the nervous system and circulation, and consequently the tone of his whole muscular frame; and this may have been in part the cause." Now I fail to see why it may not have been wholly the cause. A sudden disappointment occurred to the animal, which he had previous experience of, and the severity of which *we* are quite incapable of estimating. Of course this changed his hopeful, joyous, nervous condition to one of dejection; and the muscles immediately

sympathised in harmony, as they always do —except in man when he wishes to hide his emotion ;—hence the change of attitude.

This simple explanation appears to me to be quite sufficient to account for the dog's "hothouse face," without resorting to the principle of "antithesis."

While I think, with all humility, that Mr. Darwin's idea of "antithesis" is by no means satisfactory in accounting for the explanation of the expression of emotion in dogs, neither does it appear to me any more successful in the case of man. In fact, Mr. Darwin himself does not seem to be satisfied with it, and only advances it for consideration in the absence of a better explanation.

Regarding the reason why the mind should so act on the muscles as to produce tension of these, and thereby expression, I will not attempt to offer any explanation.

Mr. Darwin, quoting from Dr. Piderit, says, "Expressive movements manifest themselves chiefly in the numerous and mobile muscles of the face, partly because the nerves by which they are set into motion, originate in the most immediate vicinity of the mind organ, but partly also because these muscles serve to support the organs of sense." Müller, the distinguished physiologist, again says—"The completely different expression of the features in different passions shows that, according to the kind of feeling excited, entirely different groups of the fibres of the facial nerve are acted on. Of the cause of this we are quite ignorant." We must leave the question, therefore, of why the mind acts on certain muscles to produce expression, to the further investigation of physiologists. But that the mind does act in

this way is abundantly proved by certain facts. For instance, if two children of the same family, and nearly of the same age, are asleep in bed, it is often a matter of some consideration for even a parent to tell which is which; though, when they are awake, and their minds in play, comparatively little resemblance can be observed between them. This not only shows that the mind, when acting, has a great influence on the form of the features, but it also illustrates the well-known fact that we often inherit certain family features, even though these may not at all times be recognised.

A further proof of this is found in the circumstance, that, when we revisit a village of our youth, we can often, with certainty, say of the children we see playing about: "There goes a young Jones, Smith, or Robinson!" though we never

saw the children before. This is, no doubt, owing to some strongly-marked inherited feature, which was familiar to us in some of our youthful friends, who had become the fathers of these children.

Respecting the influence of the mind on the features, Sir Charles Bell writes :—"A countenance, which in ordinary conditions has nothing remarkable, may become beautiful in expression. And none who have lost a friend but must acknowledge that it is the evanescent expression, more than the permanent form, which is painfully dear to us." Again he says :—"Expression is even of more consequence than shape; it will light up features otherwise heavy; it will make us forget all but the quality of mind."

The mind acting, as we thus find it does, from some cause or other on the muscles of the face, will, with time, develop these more

and more; and thereby change, to a great extent, the permanent or family form. In children, where the facial muscles are but little developed, we do not see much play of features; and the want of this becomes a drawback, when we have to reprimand them; for we often find that they then suddenly burst out into deep distress, when our intention was only gently to impress them.

As life goes on, with its increasing difficulties and troubles, the brain is more frequently called into full power to overcome these. Hence increased development of certain muscles; and hence, also, some sharp and strongly marked lines, which give a decided and individual expression.

Every week our old friend "Punch" takes advantage of these facts; for we find the artist seizing on some marked lines in a

statesman's face, so that we readily recognise him, though the distinguished individual may be represented in some very absurd and unlikely situation.

Regarding this point Sir Charles Bell says :—" It is by the habit of expression that the countenance is improved or degraded, and that the character of virtue and vice are imprinted. If hardships, misfortunes, care, and, still worse, vice, are there habitually impressed, then all that we admire is lost." Sir Charles might well have added *bad health* as among the influences which greatly tend to mar a pleasing expression. I have seen pauper children, of five or six years of age, who had been badly nourished, and, probably, badly treated, sitting by the fireside, sad and silent, day after day, and all day, their little faces marked with lines as strong as if all the cares of the Empire rested

on their young shoulders. Yet, when these children were being brought into better health by nourishment and kindly treatment, line after line in their weary faces would disappear, till, at last, they had the smooth, round, chubby look of youthful health. In such instances, the uneasy feelings resulting from bad health must have been the chief cause of the remarkable and unusual lines in their faces. Let a consideration of such cases make us more charitable in our judgment regarding the irritable temper of the great Carlyle, and other chronic dyspeptics not unfrequently met with among our friends.

We find, then, that while bad health leaves its traces on the countenance, a restoration to good health may also restore the original appearance. And, doubtless, it is the same with vice, though the process is slower and generally more difficult. Should the traces

of the degradation of vice become hereditary in a descendant, as they are apt to do, surely we may hope that by improving a child's surroundings, and by careful mental training, these traces may be obliterated. It were a bad look-out for most of us, I fear, if it were not so.

## *How to account for Expressive Habits in Dogs, etc.*

If it is difficult to account for the origin of expression and expressive habits in man, what are we to say regarding these in the case of dogs and other animals and birds? In dogs the emotions are, of course, not so complicated as in man, while the lines of expression are very well marked; and, therefore, a little consideration will show that the difficulties here are not insuperable.

The chief emotions which the dog suggests to us by his movements are those of energy, depression, and affection. Now, the first is in great part the mere result of his brain being in a state of excitement; the whole muscular apparatus of the body being therefore in a state of tension, in sympathy with the nervous system. This—the energetic condition—therefore, I think, presents comparatively little difficulty, further than the one already mentioned, as to why the muscles should contract, in sympathy with the brain, without a distinct act of volition. In the depressed state, again, the explanation is evidently just the reverse of the former; but when we come to that condition in which he crouches and fawns as of purpose, the explanation is by no means so easy. In considering this subject, however, we must remember that dogs, as well as other animals,

show a very considerable amount of reason, though chiefly when their self-interest is concerned; and further, that dogs must have been associated with man from very early times; and therefore their knowledge must have grown, and become hereditary in the race, and is no doubt still growing. Now, every person will agree in this—that dogs readily assume a crouching attitude to their masters for the express purpose of averting a whipping. Apart, therefore, altogether from the theory of special gifts by Providence, or the doctrine of evolution, it does not appear to me to be giving dogs too much credit for reason, when we assume that the crouching and fawning position spoken of may have come about somewhat in the following way:—In the early days of their association with man, dogs must often have been made to crouch and howl by being

thrashed; so that in time they would come to anticipate a thrashing by crouching whenever they were threatened. If by this movement the dogs found that they occasionally averted a thrashing, they would be encouraged to repeat the movement in similar circumstances. Then the next step would be to crouch whenever their master showed an angry expression of face and a threatening attitude, which always accompanies a flogging. Finding thus that by assuming the crouching position they often escaped punishment, this position would soon become the usual one, whenever they saw their masters angry with them. In some such way as this, I think, the crouching position—attributed by Mr. Darwin to "antithesis"—may easily have arisen, and in time would become general and instinctive in the the race, from an experience of its usefulness.

Regarding the third emotion mentioned as being common in dogs, namely, affection, Mr. Darwin remarks that as the female dog, like all other females, is very affectionate to her young, and licks them for the purpose of cleanliness, so in this way the act of licking may have become a mark of affection in the race. The only other prominent feature of this emotion in dogs is the wagging of the tail; but I have been quite unable to form any theory as to how this very common movement could have arisen. We see that dogs wag their tails to us and to each other when they intend peace; and we have seen that this horizontal movement is in accordance with other lines in nature as a sign of peace; but these considerations do not help us as to the origin of the movement. It is true that in the young of some animals, such as lambs and calves, we find that they

wriggle or whisk their tails whenever they begin the act of sucking their milk ; but this does not appear to me to throw any light on the origin of the peaceful wag of the tail in dogs.

In a former paragraph I have remarked on the horizontal movement of the tail in cats, and their race, as a sign which precedes an attack. In the feline race this movement of the tail, if I mistake not, usually takes place when the animal is in a state of intense expectancy ; and therefore there may be some analogy between them in this condition and the friendly approaches of the dog. But whether this be the case or not, the origin of the movements in both must still remain a mystery to be solved.

Of course, the fewer the emotions a creature is endowed with, the fewer the expressions necessary to communicate these to each other. Dogs and monkeys being

highly developed animals, are capable of many expressions, as we see by their faces, ears, tails, voices, and attitudes. Birds, in general, must, I think, possess comparatively few emotions, as they have rather scant means of expressing them; and their wings, tail, and voice appear to be enough for the purpose. Mr. Herbert Spencer tells us that the proportion of brain to the body in birds is only 1 to 212, whereas in mammals it is 1 to 186, so that we may infer that the former have fewer emotions to express. But again he says that the higher blood-heat of birds places their relatively smaller nervous system on a par with that of mammals. This last statement may no doubt put them on a par with regard to energy; but the smaller brain probably gives them less capacity for the emotions, as Mr. Spencer suggests.

In birds we very often see either a vertical or lateral movement of the tail. I have already remarked on the expressive attitude of the tail in the robin and wren ; and such may also be constantly observed in the sparrow, the magpie, blackbird, thrush, and others. In these instances, the raised tail appears to be coincident with increased nervous energy ; but such is not the case in the wagtails, where we see the tail sweeping up and down in a graceful movement. In these birds the tail, with its largely developed feathers, serves a most useful purpose, and in fact it appears to be necessary for their existence. The yellow variety lives chiefly on insects which are found on stones in the course of small streams. As the bird flies along and sees an insect on a stone it has to stop instantly to pick it up, otherwise it would be hurried into the water by its own impetus,

where it would be helpless, since it is not web-footed. In order suddenly to stop its progress, the bird raises its tail and expands it, so that by resistance to the air it acts as a drag.

The pied variety of wagtails live on flies and other insects often in the air over our lawns and grass fields ; and in these circumstances also the long tail feathers enable the bird to jerk about and make rapidly changing movements after its insect prey. Probably the up and down sweeping movements of the tail in these birds may be a natural mechanical motion on coming to rest after a sharp effort with an appendage so largely out of proportion to their small bodies, and it is chiefly, if not only, after such exertion that they do so wave their tails.

In the Australian red-bills we find them practising a peculiar, jerking, lateral move-

ment of the tail; as is also the case in ducks, with such tails as they have. In these last, however, we can easily understand that a vertical movement would have been very inconvenient in the water; and this may probably account for the horizontal movement in them.

The wings of birds are often used as a means of expressing their emotion; and the positions they place them in are in accordance with the indications of lineal expression.

The swan, for instance, raises her wings when she is angry; and the clucking hen does the same when she is anxious to repel an invader from her young; and Mr. Darwin has shown how birds in general raise their feathers to make them appear more terrible to their enemies.

In a former paragraph I mentioned that the young of many birds depress their wings

when they plead with their parents to be fed. And in the common house sparrow we constantly see that the old birds lower their wings, when they wish to express the emotion of gentleness or beseechingness to each other when making love. On one occasion I had the opportunity of observing the use which the grey African parrot made of its wings to express emotion. The bird belonged to a lady, a great lover of all animals, who had been from home on a visit for a few days. On her return, I chanced to be present at the meeting between her and the bird, and the sight was most interesting. The moment the lady came into the room the bird flew to her shoulder, and, embracing her with her wings round the neck, she kept kissing and chattering her sayings in the most excited manner for some time. I observed, too,

that the colour of the bird's iris changed constantly from the ordinary yellow to a rich orange hue; no doubt from the increased determination of blood to the eye on account of the excited state of her brain. No one seeing the demonstration could doubt that the bird returned the affection of her mistress most heartily, and was delighted to see her home again.

From the instances we have been considering, I have no doubt but the reader will agree with me that animals regularly use their ears and tails, and birds their wings, to express emotion; and that the lines which they form at these times are very generally in accordance with the art rules we are discussing.

Of all the many dogs I have had the opportunity of observing, I have only seen one which did not use his ears and tail

to express emotion. This animal was a collie, and constantly kept his tail depressed and never erect or wagged under any circumstances that I could see. He was a house dog and had never been used for sheep, and was very gentle with the children, members of the family, and others. To me he was a most anomalous creature which I could never understand in the least.

## *General Remarks.*

We have now gone over a considerable range of our ordinary surroundings in life to test the truth of lineal expression; and I think it will be conceded that, with very few exceptions indeed, the law of lines is true to nature.

In all successful pictures by eminent artists we generally see the law of lineal

expression carefully followed. I have already remarked on the delightful effect of gentle down and up lines in the works of several distinguished artists; and in depicting the features—where artists bring the whole force of their genius to bear—there is nothing to be desired. Their works show abundant evidence of their profound knowledge of expression. When examining an exhibition of pictures, however, the thought has sometimes occurred to me that artists surely cannot have the law of lineal expression so prominently before them as they might have, otherwise they could occasionally make the accessories of their pictures more telling and effective than they sometimes are. Let us consider for a moment the result of an harmonious line in Sir Joshua Reynold's picture of "The Strawberry Girl." I have only seen an engraving of this picture, but

a more gentle demeanour than that of the figure painted there it is impossible to conceive. Now, on careful examination, I think it will be found, that this effect is in no small degree owing to the arms and hands being disposed in a conspicuously horizontal line across the waist. Sir Joshua may have drawn the girl with her arms extended down by her side, since carrying the basket in that way would have been perfectly natural. But what effect would this position have had on the picture? I venture to think the result would not have been nearly so perfect as it is with the hands and arms in a horizontal line. I mention this point merely to show the telling effect of an harmonious line. Now, a similarly striking effect could often, in my crude opinion, be produced in a painting of an interior by the choice of flowers and plants used for the decoration of the room.

Suppose a picture is intended to represent a room under some sad circumstances, then the plants chosen for the decoration should be those with the foliage falling downwards, such as the palm, india-rubber tree, or others with a like habit. The curtains also should be arranged so as to show down lines, as these would help to increase the sad effect. In landscape, too, trees should be selected with forms or habits becoming in the circumstances, and these carefully and distinctively drawn. So careless are many of the older artists in giving the individuality of trees, that even Turner was constantly in the habit of drawing general trees. On looking over a set of engravings of that great artist's pictures, an arboriculturist could scarcely distinguish a single tree in any of his pictures, with the exception of a few elms, willows, and pines. No doubt all his trees

are beautiful, but it appears to me unnecessary that trees, any more than animals, should lose their own individuality for the sake of the artist's idea of beauty, especially when quite as much beauty can, with care, be produced by recognisable trees. The pre-Raphaelite School has done much to correct this carelessness, if I mistake not.

In the teaching of art, too, surely it would be of advantage to students if masters were to impress them with a knowledge of lineal expression. This would evidently tend to careful and minute observation, and consequently to accurate drawing, which is of so great importance to the student.

Of architecture I know too little to be able to remark upon its bearing on the line laws. But I may venture to say that a lofty building is suggestive of ambition ; and this is especially the case with regard to the

spire. When a spire is finely proportioned and sufficiently high it appears to reach into the heavens, as in Lichfield Cathedral, so that you have some difficulty in distinguishing where the spire terminates and mere space begins.

With regard to the histrionic profession and the art law, I know not whether actors in general have a knowledge of the law of lineal expression, but so far as my little experience in dramatic matters goes, if they have not a detailed knowledge of the law, they appear to have a very perfect intuitive perception of the principles. On the stage we constantly see the art law carried out, both in the expression of the features in actors by the help of art, and also in the surroundings of the stage decorations.

If a familiarity with the law of lines is of some consequence to artists, architects, and

actors, it certainly is of great importance to ladies in the appointments of their dress. If to the law of lineal expression we have been considering, we add the very well-known one that interrupted lines appear to shorten distance, while uninterrupted lines as surely appear to increase it, then in these facts ladies have a sure principle to guide them, which seldom indeed can be broken with impunity. It appears to me that a competent knowledge of these laws could easily be acquired, and if they were applied with discrimination to the principles of their dress, then ladies would be protected from many of the outrageous exaggerations which the tyranny of fashion from time to time imposes on the sex.

## *Sounds in Harmony with Lines.*

Before concluding, it may not be inappropriate to make a few remarks on sounds, as expressive of the emotions. On this subject Mr. Darwin, in his "Descent of Man," says: "Mr. Spencer does not offer any satisfactory explanation, nor can I, why high or deep notes should be expressive, both with man and the lower animals, of certain emotions." May it not be because of the amount of energy they require to produce them, and which they consequently express? Low and soft notes, being sounds of low energy, have become associated in our minds with sadness, tenderness, and the allied feelings; while high and sharp notes are the result of higher energy, and are more suggestive of power and action. That this is so in nature, generally, I have no doubt. The "*cōo, cōo,*

cô̂o, cô̂o," of the wood pigeon, sounds sad to our ears, though I am not prepared to say under what circumstances the bird produces it. All the varieties of doves, I believe, have a similar cooing sound which apparently has long been regarded as sad, for we read in the Bible of "mourning like a dove." As a general rule, when a bird is in low energy, its note also is low; while, on the other hand, when its energy is high, its note also is high. The bullfinch, for example, gives out a very sad, plaintive note, but only when calling for its mate, or mourning in confinement. Its song is very sweet and cheerful. The blackbird's song, though mellow, is also cheerful; but let any one go near its nest with young, and then he emits a sadly, mournful "pūck, pūck," in low energy, while, if quite alarmed, he almost screams as he flies off.

The common fowl, when clucking, emits sounds in accordance with her energy at the moment; giving her well-known "cluck, cluck," when feeding her young in peace; a rapid and more energetic "chick chick, chick chick," when she calls them to enjoy some dainty morsel; but a scream when alarmed for their safety. When a hen has laid an egg, her victorious cackle is most significant, and has quite a triumphant sound, as if she were proud of her performance, and wanted to proclaim it to the hen-world.

The different varieties of barks and other sounds given out by dogs and cats, are also in accordance with the energy required to produce them; and are suggestive to us of feelings depending on the amount of that energy. They are always low when the animal is at rest and peace; sharper when

excited ; and wailing or howling when miserable. The growl of the dog may be considered as a solemn warning that he is present, and must be regarded; but he generally raises the pitch when he takes action.

With man also, as in animals, I think it will be found that the sounds natural to him are in accordance with the energy involved in the feelings or circumstances at the time—for example, moaning, when in low energy from suffering, either in mind or body, but not severely. This moan, however, is increased by degrees, in proportion to the severity of the pain, till it may become quite a roar. Such, also, is the case in the various degrees of weeping, which may go on increasing till it amounts to a scream. It is the same in cheering, which differs in degree from the clapping of hands and the short, sharp cheer of approval, to the trium-

phant and prolonged hurrah! of anticipated success, or of victory won.

In music, again, the same rule appears to hold true; low and soft notes—sounds of low energy—are, as I have said, sad, tender, or sweet sounds; and in song are generally wedded to fitting words. If the notes are sharper and shorter—sounds of more energy than the former—they are suggestive of more stirring sentiments, such as aggressive love, or happy, cheerful, and bright scenes in life. But should this class of music have many very prolonged notes interspersed—increased energy—it then becomes more characteristic of heroic music. A prolonged note appears invariably to suggest increased energy; and, therefore, when one occurs in any passage, it increases greatly the feeling expressed in the preceding bar, whether that be heroic or pathetic.

It is the impossibility of prolonging a note on the piano which makes it so poor an instrument for expressing the passions. The piano is remarkably convenient and useful, but till manufacturers can manage to make it so that the notes may be prolonged when desired, it must necessarily be deficient in pathos as compared with other instruments which permit of this being done.

In successful heroic poetry, I think that the open vowels and the letter R occur more frequently than in poetry of another character. And I suspect it must be the increased energy of these, more especially the distinctly marked energy of the R sound, which causes a verse, in which these occur, to be so effective in song. For example, take a verse of Burns' "Song of Death," and observe the heroic power of the lines,—

"Thou grim king of terrors, thou life's gloomy foe,
Go frighten the coward and slave,
Go, teach them to tremble, fell tyrant, but know
No terrors hast thou to the brave."

Or again, take a verse from Sir Walter Scott's "Bonny Dundee," where in addition to the letters mentioned we have the letter S coming in with wonderful effect in the second line,—

"He waved his proud hand and the trumpets were blown,
The kettle-drums clash'd, and the horseman rode on,
Till on Ravelston's cliffs and on Clermiston's lee
Died away the wild war-notes of Bonny Dundee."

Why, in the second line you almost hear the sounds of the marching cavalry; and I believe it is the open vowels, and the recurring R's and S's, which indicate so much energy, and produce this effect.

In Byron, too, we read,—

"Hoarse o'er her side the rustling cable rings,
The sails are furl'd and anchoring round she swings"—

words which express with remarkable effect the rugged energy of the cable running out when the ship is coming to an anchor.

Let us now consider the effect of a note in music falling a semitone or a third. When this occurs in any passage of a melancholy character, the feeling is greatly intensified; but though the increased sadness produced by this lowered semitone or third is probably out of all comparison great in proportion to the slight diminution of energy required to sound it, still the result appears to me to be strictly in accordance with the principles we have been considering in regard to lines. Long ex-

perience in natural sounds, and our own habit when depressed, have led us to associate sadness with low and slow music; so that even a slight fall in such circumstances very greatly enhances the effect; just as we have seen a line in the face, however trifling, at once intensify or change the character of the expression.

If this description of the feelings, suggested by certain characters and arrangements of notes, be correct, as I think will be found to be the case, then we cannot help coming to the conclusion that notes of low energy —soft and slow—are analogous to down-tending lines; and that high and prolonged notes—much energy—are analogous to up-tending lines; the horizontal line being probably represented by sweet and peaceful music, which has no great or frequent variation of the notes. Should the notes in

music be short, and the transition from high to low, and the reverse, be frequent and sudden, then a mirthful, more boisterous, and rapid action is suggested, as in the Highland reel and the *tarantelle.* Never having seen the *tarantelle* danced, I cannot remark upon it; but in the Highland reel the movements are energetic, short, and unexpected, while the lines of the gestures are contradictory to these and to each other. These peculiar inharmonious movements appear to be essential to produce the mirth of action, and we can observe similar fantastic motions in children when brimming with glee, and occasionally in dogs, as already stated. Thus we perceive a strong analogy between the mirth of action and merry music.

Unfortunately, I am not musician enough to pursue this interesting subject further.

To conclude: on reviewing the facts and arguments brought forward in the preceding pages and their bearing on expression, it appears to me that hitherto the natural and elementary nervous conditions which most require to be expressed, namely, vigour and want of vigour, have not received the attention due to them. As I mentioned before, these conditions must evidently have been of the first importance, both to man and animals, from the beginning; and the symptoms which indicated these states must have been among the first which they would learn to interpret. From the facts adduced, it is surely abundantly proved that uptending and downtending lines are now the most commonly observed phenomena in these symptoms; and, as we have seen, the same phenomena must have pervaded every form of animated nature around these early

beings. Though there is no doubt but many of our expressions are the result of physiological causes, as Sir Charles Bell, Mr. Darwin, and Dr. Warner have very clearly shown, yet even in these it will be found that the law of lines applies as surely, as it does in other expressions less dependent on physiological causes. The eye, therefore, would soon grow accustomed to the appearances of the three conditions stated in the art rules; their meaning would be understood by constant experience, and the indications attaching to them would become extended and combined, as the emotions became more complicated and as the mind developed. Still, notwithstanding all complication of emotions or enlarged experience, the fact remained evident that uptending lines accompanied all joyous or exhilarating emotion, and in fact all nervous energy;

while, on the other hand, all emotions of dislike, sadness, or weakness, are accompanied by downtending lines. These artistic rules, therefore, appear to me to be not merely rules in art, but great laws in nature, so that man and animals have come by experience to accept lines trending in these directions as expressing the conditions they usually co-exist with. Hence I infer, as I have more than once said, that expression in accordance with the direction of lines has become the intuitive language of emotion, understood by all; and that our judgment for the time being is constantly influenced in accordance with their indications, even when they are applied to inanimate forms. Most certainly, man has become so impressed by the constant observation of these phenomena that, quite unconsciously, he has come to connect the particular direction of

lines with particular qualities, to a much greater extent than we commonly suppose, even in the multifarious expressions in the human face.

Whatever may be the reader's opinion in regard to the manner in which I have tried to prove the analogy between lines, qualities, and sounds, there can be no difference in opinion on this fact, that, both morally and spiritually, we look for all that is pure, hopeful, and bright to heaven above; while we associate all that is sinful, sorrowful, and sad with the earth beneath.

THE END.

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