

# LIFE AND HABIT.



## CHAPTER I.

### ON CERTAIN ACQUIRED HABITS.

It will be our business in the following chapters to consider whether the unconsciousness, or quasi-unconsciousness, with which we perform certain acquired actions, would seem to throw any light upon Embryology and inherited instincts, and otherwise to follow the train of thought which the class of actions above-mentioned would suggest; more especially in so far as they appear to bear upon the origin of species and the continuation of life by successive generations, whether in the animal or vegetable kingdoms.

In the outset, however, I would wish most distinctly to disclaim for these pages the smallest pretension to scientific value, originality, or even to accuracy of more than a very rough and ready kind—for unless a matter be true enough to stand a good deal of misrepresentation, its truth is not of a very robust order, and the blame will rather lie with its own delicacy if it be crushed, than with the carelessness of

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the crusher. I have no wish to instruct, and not much to be instructed; my aim is simply to entertain and interest the numerous class of people who, like myself, know nothing of science, but who enjoy speculating and reflecting (not too deeply) upon the phenomena around them. I have therefore allowed myself a loose rein, to run on with whatever came uppermost, without regard to whether it was new or old; feeling sure that if true, it must be very old or it never could have occurred to one so little versed in science as myself; and knowing that it is sometimes pleasanter to meet the old under slightly changed conditions, than to go through the formalities and uncertainties of making new acquaintance. At the same time, I should say that whatever I have knowingly taken from any one else, I have always acknowledged.

It is plain, therefore, that my book cannot be intended for the perusal of scientific people; it is intended for the general public only, with whom I believe myself to be in harmony, as knowing neither much more nor much less than they do.

Taking then, the art of playing the piano as an example of the kind of action we are in search of, we observe that a practised player will perform very difficult pieces apparently without effort, often, indeed, while thinking and talking of something quite other than his music; yet he will play accurately and, possibly, with much expression. If he has been playing a fugue, say in four parts, he will have kept each part well distinct, in such a manner as to prove that his mind was not prevented, by its other occupations, from

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consciously or unconsciously following four distinct trains of musical thought at the same time, nor from making his fingers act in exactly the required manner as regards each note of each part.

It commonly happens that in the course of four or five minutes a player may have struck four or five thousand notes. If we take into consideration the rests, dotted notes, accidentals, variations of time, &c., we shall find his attention must have been exercised on many more occasions than when he was actually striking notes: so that it may not be too much to say that the attention of a first-rate player may have been exercised—to an infinitesimally small extent—but still truly exercised—on as many as ten thousand occasions within the space of five minutes, for no note can be struck nor point attended to without a certain amount of attention, no matter how rapidly or unconsciously given.

Moreover, each act of attention has been followed by an act of volition, and each act of volition by a muscular action, which is composed of many minor actions; some so small that we can no more follow them than the player himself can perceive them; nevertheless, it may have been perfectly plain that the player was not attending to what he was doing, but was listening to conversation on some other subject, not to say joining in it himself. If he has been playing the violin, he may have done all the above, and may also have been walking about. Herr Joachim would unquestionably be able to do all that has here been described.

So complete would the player's unconsciousness of the attention he is giving, and the brain power he is exerting appear to be, that we shall find it difficult to awaken his attention to any particular part of his performance without putting him out. Indeed we cannot do so. We shall observe that he finds it hardly less difficult to compass a voluntary consciousness of what he has once learnt so thoroughly that it has passed, so to speak, into the domain of unconsciousness, than he found it to learn the note or passage in the first instance. The effort after a second consciousness of detail baffles him—compels him to turn to his music or play slowly. In fact it seems as though he knew the piece too well to be able to know that he knows it, and is only conscious of knowing those passages which he does not know so thoroughly.

At the end of his performance, his memory would appear to be no less annihilated than was his consciousness of attention and volition. For of the thousands of acts requiring the exercise of both the one and the other, which he has done during the five minutes, we will say, of his performance, he will remember hardly one when it is over. If he calls to mind anything beyond the main fact that he has played such and such a piece, it will probably be some passage which he has found more difficult than the others, and with the like of which he has not been so long familiar. All the rest he will forget as completely as the breath which he has drawn while playing.

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He finds it difficult to remember even the difficulties he experienced in learning to play. A few may have so impressed him that they remain with him, but the greater part will have escaped him as completely as the remembrance of what he ate, or how he put on his clothes, this day ten years ago; nevertheless, it is plain he remembers more than he remembers remembering, for he avoids mistakes which he made at one time, and his performance proves that all the notes are in his memory, though if called upon to play such and such a bar at random from the middle of the piece, and neither more nor less, he will probably say that he cannot remember it unless he begins from the beginning of the phrase which leads to it. Very commonly he will be obliged to begin from the beginning of the movement itself, and be unable to start at any other point unless he have the music before him; and if disturbed, as we have seen above, he will have to start *de novo* from an accustomed starting-point.

Yet nothing can be more obvious than that there must have been a time when what is now so easy as to be done without conscious effort of the brain was only done by means of brain work which was very keenly perceived, even to fatigue and positive distress. Even now, if the player is playing something the like of which he has not met before, we observe he pauses and becomes immediately conscious of attention.

We draw the inference, therefore, as regards piano-forte or violin playing, that the more the familiarity or knowledge of the art, the less is there consciousness of such knowledge; even so far as that there should

seem to be almost as much difficulty in awakening consciousness which has become, so to speak, latent,—a consciousness of that which is known too well to admit of recognised self-analysis while the knowledge is being exercised—as in creating a consciousness of that which is not yet well enough known to be properly designated as known at all. On the other hand, we observe that the less the familiarity or knowledge, the greater the consciousness of whatever knowledge there is.

Considering other like instances of the habitual exercise of intelligence and volition, which, from long familiarity with the method of procedure, escape the notice of the person exercising them, we naturally think of writing. The formation of each letter requires attention and volition, yet in a few minutes a practised writer will form several hundred letters, and be able to think and talk of something else all the time he is doing so. He will not probably remember the formation of a single character in any page that he has written; nor will he be able to give more than the substance of his writing if asked to do so. He knows how to form each letter so well, and he knows so well each word that he is about to write, that he has ceased to be conscious of his knowledge or to notice his acts of volition, each one of which is, nevertheless, followed by a corresponding muscular action. Yet the uniformity of our handwriting, and the manner in which we almost invariably adhere to one method of forming the same character, would seem to suggest that during the momentary formation of each letter

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our memories must revert (with an intensity too rapid for our perception) to many if not to all the occasions on which we have ever written the same letter previously—the memory of these occasions dwelling in our minds as what has been called a residuum—an unconsciously struck balance or average of them all—a fused mass of individual reminiscences of which no trace can be found in our consciousness, and of which the only effect would seem to lie in the gradual changes of handwriting which are perceptible in most people till they have reached middle-age, and sometimes even later. So far are we from consciously remembering any one of the occasions on which we have written such and such a letter, that we are not even conscious of exercising our memory at all, any more than we are in health conscious of the action of our heart. But, if we are writing in some unfamiliar way, as when printing our letters instead of writing them in our usual running hand, our memory is so far awakened that we become conscious of every character we form ; sometimes it is even perceptible as memory to ourselves, as when we try to remember how to print some letter, for example a g, and cannot call to mind on which side of the upper half of the letter we ought to put the link which connects it with the lower, and are successful in remembering ; but if we become very conscious of remembering, it shows that we are on the brink of only trying to remember,—that is to say, of not remembering at all.

As a general rule, we remember for a time the substance of what we have written, for the subject is

generally new to us ; but if we are writing what we have often written before, we lose consciousness of this too, as fully as we do of the characters necessary to convey the substance to another person, and we shall find ourselves writing on as it were mechanically while thinking and talking of something else. So a paid copyist, to whom the subject of what he is writing is of no importance, does not even notice it. He deals only with familiar words and familiar characters without caring to go behind them, and thereupon writes on in a *quasi*-unconscious manner ; but if he comes to a word or to characters with which he is but little acquainted, he becomes immediately awakened to the consciousness of either remembering or trying to remember. His consciousness of his own knowledge or memory would seem to belong to a period, so to speak, of twilight between the thick darkness of ignorance and the brilliancy of perfect knowledge ; as colour which vanishes with extremes of light or of shade. Perfect ignorance and perfect knowledge are alike unselfconscious.

The above holds good even more noticeably in respect of reading. How many thousands of individual letters do our eyes run over every morning in the "Times" newspaper, how few of them do we notice, or remember having noticed ? Yet there was a time when we had such difficulty in reading even the simplest words, that we had to take great pains to impress them upon our memory so as to know them when we came to them again. Now, not even a single word of all we have seen will remain with us, unless



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it is a new one, or an old one used in an unfamiliar sense, in which case we notice, and may very likely remember it. Our memory retains the substance only, the substance only being unfamiliar. Nevertheless, although we do not perceive more than the general result of our perception, there can be no doubt of our having perceived every letter in every word that we have read at all, for if we come upon a word misspelt our attention is at once aroused; unless, indeed, we have actually corrected the misspelling, as well as noticed it, unconsciously, through exceeding familiarity with the way in which it ought to be spelt. Not only do we perceive the letters we have seen without noticing that we have perceived them, but we find it almost impossible to notice that we notice them when we have once learnt to read fluently. To try to do so puts us out, and prevents our being able to read. We may even go so far as to say that if a man can attend to the individual characters, it is a sign that he cannot yet read fluently. If we know how to read well, we are as unconscious of the means and processes whereby we attain the desired result as we are about the growth of our hair or the circulation of our blood. So that here again it would seem that we only know what we know still to some extent imperfectly, and that what we know thoroughly escapes our conscious perception though none the less actually perceived. Our perception in fact passes into a latent stage, as also our memory and volition.

Walking is another example of the rapid exercise of volition with but little perception of each individual

act of exercise. We notice any obstacle in our path, but it is plain we do not notice that we perceive much that we have nevertheless been perceiving; for if a man goes down a lane by night he will stumble over many things which he would have avoided by day, although he would not have noticed them. Yet time was when walking was to each one of us a new and arduous task—as arduous as we should now find it to wheel a wheelbarrow on a tight-rope; whereas, at present, though we can think of our steps to a certain extent without checking our power to walk, we certainly cannot consider our muscular action in detail without having to come to a dead stop.

Talking—especially in one's mother tongue—may serve as a last example. We find it impossible to follow the muscular action of the mouth and tongue in framing every letter or syllable we utter. We have probably spoken for years and years before we became aware that the letter b is a labial sound, and until we have to utter a word which is difficult from its unfamiliarity we speak “trippingly on the tongue” with no attention except to the substance of what we wish to say. Yet talking was not always the easy matter to us which it is at present—as we perceive more readily when we are learning a new language which it may take us months to master. Nevertheless, when we have once mastered it we speak it without further consciousness of knowledge or memory, as regards the more common words, and without even noticing our unconsciousness. Here, as in the other instances already given, as long as we did not know