

ANALYSIS  
OF  
THE PHENOMENA  
OF  
THE HUMAN MIND,

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IN TWO VOLUMES.

VOL. I.

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“ In order to prepare the way for a just and comprehensive system of Logic, a previous survey of our nature, considered as a great whole, is an indispensable requisite.” *Philosophical Essays, (Prelim. Dissert. p. lxvii.)* by Dugald Stewart, Esq.

“ Would not Education be necessarily rendered more systematical and enlightened, if the powers and faculties on which it operates were more scientifically examined, and better understood ?” *Ibid. p. xlviii.*

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# ANALYSIS, &c.

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## INTRODUCTION.

“ I shall inquire into the original of those ideas, notions, or whatever else you please to call them, which a man observes and is conscious to himself he has in his mind ; and the ways whereby the understanding comes to be furnished with them.”

*Locke, i. 1. 3.*

PHILOSOPHICAL inquiries into the human mind have for their main, and ultimate object, the exposition of its more complex phenomena.

It is necessary, however, that the simple should be premised ; because they are the elements of which the complex are formed ; and because a distinct knowledge of the elements is indispensable to an accurate conception of that which is compounded of them.

The feelings which we have through the external senses are the most simple, at least the most familiar, of the mental phenomena. Hence the propriety of commencing with this class of our feelings.



## CHAPTER I.

## SENSATION.

“ I shall not at present meddle with the physical consideration of the mind, or trouble myself to examine wherein its essence consists ; or by what motions of our spirits, or alterations of our bodies, we come to have any Sensation by our organs, or any Ideas in our understandings ; and whether those ideas do in their formation, any or all of them, depend on matter or no. These are speculations which, however curious and entertaining, I shall decline, as lying out of my way in the design I am now upon.”—*Locke*, i. 1, 2.

MY object, in what I shall say respecting the phenomena classed under the head of SENSATION, is, to lead such of my readers as are new to this species of inquiry to conceive the feelings distinctly. All men are familiar with them ; but this very familiarity, as the mind runs easily from one well known object to another, is a reason why the boundary between them and other feelings is not always observed. It is necessary, therefore, that the learner should by practice acquire

the habit of reflecting upon his Sensations, as a distinct class of feelings; and should be hence prepared to mark well the distinction between them and other states of mind, when he advances to the analysis of the more mysterious phenomena.

What we commonly mean, when we use the terms Sensation or phenomena of Sensation, are the feelings which we have by the five senses,—SMELL, TASTE, HEARING, TOUCH, and SIGHT. These are the feelings from which we derive our notions of what we denominate the external world;—the things by which we are surrounded: that is, the antecedents of the most interesting consequents, in the whole series of feelings, which constitute our mental train, or existence.

The feelings, however, which belong to the five external Senses are not a full enumeration of the feelings which it seems proper to rank under the head of Sensations, and which must be considered as bearing an important part in those complicated phenomena, which it is our principal business, in this inquiry, to separate into their principal elements, and explain. Of these unnamed, and generally unregarded, Sensations, two principal classes may be distinguished:—first, Those which accompany the action of the several muscles of the body; and, secondly, Those which have their place in the Alimentary Canal.

## SECTION I.

## SMELL.

It is not material to the present purpose in what order we survey the subdivisions of this elementary class of the mental phenomena. It will be convenient to take those first, which can be most easily thought of by themselves; that is, of which a conception, free from the mixture of any extraneous ingredient, can be most certainly formed. For this reason we begin with SMELL.

In the Smell three things are commonly distinguished. There is the ORGAN, there is the SENSATION, and there is the antecedent of the Sensation, the external OBJECT, as it is commonly denominated,\* to which the Sensation is referred as an effect to its cause.

These three distinguishable particulars are common to all the five Senses. With regard to the ORGAN, which is a physical rather than a

\* It is necessary here to observe, that I use, throughout this Inquiry, the language most commonly in use. This is attended with its disadvantages; for on the subject of mind the ordinary language almost always involves more or less of theory, which may or may not appear to me to correspond with the true exposition of the phenomena. The advantages, however, of not departing from familiar terms still appeared to me to preponderate; and I am willing to hope, that such erroneous suggestions, as are sometimes inseparable from the language I have thought it best upon the whole to employ, will be corrected, without any particular notice, by the analysis which I shall present.

mental subject of inquiry, I shall have occasion to say little more than is required to make my reader distinguish, with sufficient accuracy, the part of his body to which the separate feelings of his five Senses belong. And with regard to the antecedent of the Sensation, or OBJECT of the Senses, the proper place for explaining what is capable of being known of it is at a subsequent part of this inquiry. My desire at present is, to fix the attention of the reader upon the SENSATION; that he may mark it as a mental state of a particular kind, distinct from every other feeling of his nature.

The ORGAN of Smell, as every body knows, is situated in the mouth and the nostrils, or in the nerves, appropriated to smelling, which are found in the passage between the mouth and nostrils, and in the vicinity of that passage.

Though it appears to be ascertained that the nerves are necessary to sensation, it is by no means ascertained in what way they become necessary. It is a mystery how the nerves, similar in all parts of the body, afford us, in one place, the sensation of sound; in another, the sensations of light and colours; in another, those of odours, in another those of flavours, and tastes, and so on.

With respect to the external OBJECT, as it is usually denominated, of this particular sense; in other words, the antecedent, of which the Sensation Smell is the consequent; it is, in vulgar appre-

hension, the visible, tangible object, from which the odour proceeds. Thus, we are said to smell a rose, when we have the sensation derived from the odour of the rose. It is more correct language, however, to say, that we smell the odorous particles which proceed from the visible, tangible object, than that we smell the object itself; for, if any thing prevents the odorous particles, which the body emits, from reaching the organ of smell, the sensation is not obtained. The object of the sense of smelling then are odorous particles, which only operate, or produce the sensation, when they reach the organ of smell.

But what is meant by odorous particles we are still in ignorance. Something, neither visible nor tangible, is conveyed, through the air, to the olfactory nerves; but of this something we know no more than that it is the antecedent of that nervous change, or variety of consciousness, which we denote by the word smell.

Still farther, When we say that the odorous particles, of which we are thus ignorant, reach the nerves which constitute the organ of smell, we attach hardly any meaning to the word reach. We know not whether the particles in question produce their effect, by contact, or without contact. As the nerves in every part of the body are covered, we know not how any external particles can reach them. We know not whether such particles operate upon the nerves, by their own, or



by any other influence ; the galvanic, for example, or electrical, influence.

These observations, with regard to the organ of smell, and the object of smell, are of importance, chiefly as they show us how imperfect our knowledge still is of all that is merely corporeal in sensation, and enable us to fix our attention more exclusively upon that which alone is material to our subsequent inquiries—that point of consciousness which we denominate the sensation of smell, the mere feeling, detached from every thing else.

When we smell a rose, there is a particular feeling, a particular consciousness, distinct from all others, which we mean to denote, when we call it the smell of the rose. In like manner we speak of the smell of hay, the smell of turpentine, and the smell of a fox. We also speak of good smells, and bad smells ; meaning by the one, those which are agreeable to us ; by the other, those which are offensive. In all these cases what we speak of is a point of consciousness, a thing which we can describe no otherwise than by calling it a feeling ; a part of that series, that succession, that flow of something, on account of which we call ourselves living or sensitive creatures.

We can distinguish this feeling, this consciousness, the sensation of smell, from every other sensation. Smell and Sound are two very differ-

ent things ; so are smell and sight. The smell of a rose is different from the colour of the rose ; it is also different from the smoothness of the rose, or the sensation we have by touching the rose.

We not only distinguish the sensations of smell from those of the other senses, but we distinguish the sensations of smell from one another. The smell of a rose is one sensation ; the smell of a violet is another. The difference we find between one smell and another is in some cases very great ; between the smell of a rose, for example, and that of carrion or asafœtida.

The number of distinguishable smells is very great. Almost every object in nature has a peculiar smell ; every animal, every plant, and almost every mineral. Not only have the different classes of objects different smells, but probably different individuals in the same class. The different smells of different individuals are perceptible, to a certain extent, even by the human organs, and to a much greater extent by those of the dog, and other animals, whose sense of smelling is more acute.

We can conceive ourselves, as endowed with smelling, and not enjoying any other faculty. In that case, we should have no idea of objects as seeable, as hearable, as touchable, or tasteable. We should have a train of smells ; the smell at one time of the rose, at another of the violet, at another of carrion, and so on. The succes-

sive points of consciousness, composing our sentient being, would be mere smells. Our life would be a train of smells, and nothing more. Smell, and Life, would be two names for the same thing.

The terms which our language supplies, for speaking of this sense, are exceedingly imperfect. It would obviously be desirable to have, at any rate, distinct names for the ORGAN, for the OBJECT, and for the SENSATION; and that these names should never be confounded. It happens, unfortunately, that the word SMELL is applicable to all the three. That the word smell expresses, both the quality, as we vulgarly say, of the object smelt; and also the feeling of him by whom it is smelt, every one is aware. If you ask whether the smell, when I hold a violet to my nostrils, is in me or in the violet, it would be perfectly proper to say, in both. The same thing, however, is not in both, though the two things have the same name. What is in me is the sensation, the feeling, the point of consciousness; and that can be in nothing but a sentient being. What is in the rose, is what I call a quality of the rose; in fact, the antecedent of my sensation; of which, beside its being the antecedent of my sensation, I know nothing. If I were speaking of a place in which my senses had been variously affected, and should say, that, along with other pleasures, I had enjoyed a succession of the most delightful smells, I should be understood to speak of my *sensations*. If I were speaking of a number



of unknown objects, and should say of one, that it had a smell like that of honey; of another, that it had a smell like that of garlick; I should be understood as speaking of the *object* of each sensation, a quality of the thing smelt.

The word smell, beside denoting the *sensation* and the *object*, denotes also the *organ*, in such phrases as the following; "Sight and Hearing are two of the inlets of my knowledge, and Smell is a third;" "The faculty by which I become sensible of odour is my Smell."

In the phrases in which smell is called a SENSE, as when we say, that smell is one of the five senses, there is considerable complexity. The term here imports the *organ*, it imports the *sensation*, and, in a certain way, it imports also the *object*. It imports the organ as existing continuously, the sensation as existing only under a certain condition, and that condition the presence of the object.\*

\* It will naturally occur to some of my readers, that, in the term sense of smelling, the idea of power is also included. They will say, that when we speak of the sense of smelling, we mean not only the organ, but the function of the organ, or its power of producing a certain effect. This is undoubtedly true; but when the real meaning of the language is evolved, it only amounts to that which is delivered in the text. For what does any person mean when he says that, in the sense of smelling, he has the power of smelling? Only this, that he has an organ, and that when the object of that organ is presented to it, sensation is the consequence. In all this, there is nothing but the organ, the object, and the sensation, conceived in a certain order. This will more fully appear when the meaning of the relative terms, cause and effect, has been explained.

## SECTION II.

## HEARING.

In Hearing, the same three particulars, the ORGAN, the OBJECT, and the FEELING, require to be distinguished.

The name of the organ is the Ear; and its nice and complicated structure has been described with minuteness and admiration by anatomists and physiologists.

In vulgar discourse, the object of our Sense of Hearing is a sounding body. We say that we hear the bell, the trumpet, the cannon. This language, however, is not correct. That which precedes the feeling received through the ear, is the approach of vibrating air to the ear. Certain bodies, made to vibrate in a certain way, communicate vibrations to the air, and the vibrating air, admitted into the ear, is followed by the sensation of hearing. If the air which the body makes to vibrate does not enter the ear, however the body itself may vibrate, sensation does not follow; hearing does not take place. There is, in fact, no sound. Of the circumstances in which sound is generated, part only were present. There was the organ, and there was the object, but not that juxta-position which is needed to make the antecedent of the sensation complete. Air vibrat-

ing in juxta-position to the organ, is the object of Hearing.

How air in vibration should produce the remarkable effect, called hearing, in the nerves of the ear, and no effect in those of the eye, in those of smelling, or those of taste, our knowledge does not enable us to tell.

It is not very difficult to think of the sensation of hearing, apart from the organ, and from the object, as well as from every other feeling. I hear the hum of bees. The feeling to which I give this name is a point of my own consciousness; it is an elementary part of my sensitive being; of that thread of consciousness, drawn out in succession, which I call myself. I have the hearing; it is a sensation of my own; it is my feeling, and no other man's feeling; it is a very different feeling from taste, and a very different feeling from smell, and from all my other feelings.

I hear the song of birds, I hear the lowing of oxen, I hear the sighing of the wind, I hear the roaring of the sea. I have a feeling, in each of these cases; a consciousness, which I can distinguish not only from the feelings of my other senses, but from the other feelings of the same sense. If I am asked, what takes place in me, when a trumpet is unexpectedly sounded in the next room, I answer, a sensation, a particular feeling. I become conscious in a particular way.

The number of those feelings which we are able

to distinguish is very great. In this respect, the organ of hearing in man, is much more perfect than the organ of smell. The organ of hearing can distinguish, not only the voices of different classes, but of different individuals in the same class. There never, probably, was a man whose voice was not distinguishable from that of every other man, by those who were familiarly acquainted with it.

The most simple case of sound is that perhaps of a single note on a musical instrument. This note may be sounded on an endless number of instruments, and by an endless number of human voices, from no two of which will the same sound exactly be returned.

We can think of ourselves as having the feelings of this class, and having no other. In that case, our whole being would be a series of Hearings. It would be one sensation of hearing, another sensation of hearing, and nothing more. Our thread of consciousness would be the sensation, which we denominate sound. Life and sound would be two names for the same thing.

The language by which we speak of the "sense of hearing," is also imperfect. We have, indeed, the term Ear, to express the ORGAN, but we have no appropriate name for the SENSATION, nor for the OBJECT. The term sound is a name both of the sensation and the object. If I were asked, when the bell rings, whether the sound is in me,

or in the bell, I might answer, in both; not that the same thing is in both; the things are different; having the same name. The sensation called a sound is in me, the vibration called a sound is in the bell. Hearing is equally ambiguous; a name both of the organ and the feeling. If asked, by which of my organs I have the knowledge of sound, I should answer, my hearing. And if asked what feeling it is I have by the ear, I still should say, hearing. Hearing is rarely made use of to denote the object of hearing, and hardly at all except by figure.

Noise is a name which denotes the object, in certain cases. There is a certain class of sounds, to which we give the name noise. In those cases, however, noise is also the name of the sensation. In fact, it is the name of the sensation first, and only by transference that of the object.

In the phrase, sense of hearing, the word has the same complexity of meaning, which we found in the word smelling, in the corresponding application of that term. When I say that I have the sense of hearing, I mean to say, that I have an organ, which organ has an appropriate object; and that when the organ and the object are in the appropriate position, the sensation of hearing is the consequent. In the term, sense of hearing, then, is included, the organ, the object, and the sensation, with the idea of a synchronous order of the two first, and a successive order of the third.



“Sense of hearing” is thus seen to be the name of a very complex idea, including five distinguishable ingredients, the idea of the organ of hearing, the idea of the sensation, the idea of the object of hearing, the idea of a synchronous order, and the idea of a successive order.

## SECTION III.

## SIGHT.

In SIGHT, the organ is very conspicuous, and has an appropriate name, the Eye.

In ordinary language, the object of sight is the body which is said to be seen. This is a similar error to those which we have detected in the vulgar language relating to the senses of smell and hearing. It is Light alone which enters the eye; and Light, with its numerous modifications, is the sole object of sight.

How the particles of light affect the nerves of the eye, in the peculiar manner in which they are affected in sight, without affecting the other nerves of the body, in any similar manner, we can render no account.

That the feeling we have in sight, is very different from the feeling we have in hearing, in smelling, in tasting, or touching, every man knows. It is difficult, however, to detach the feeling we have in sight from every other feeling; because there are other feelings which we are constantly in the habit of connecting with it; and the passage in the mind from the one to the other is so rapid, that they run together, and cannot easily be distinguished. The different modifica-

tions of light we call colour. But we cannot think of the sensation of colour, without at the same time thinking of something coloured, of surface or extension, a notion derived from another sense.

That the feelings of sight which we are capable of distinguishing from one another, are exceedingly numerous, is obvious from this, that it is by them we distinguish the infinite variety of visible objects. We have the sensation; the sensation suggests the object; and it is only by the difference of sensation, that the difference of object can be indicated.

Some of the things suggested by the sensations of sight, as extension and figure, are suggested so instantaneously, that they appear to be objects of sight, things actually seen. But this important law of our nature, by which so many things appear to be seen, which are only suggested by the feelings of sight, it requires the knowledge of other elements of the mental phenomena to explain.

The imperfections of the language, by which we have to speak of the phenomena of sight, deserve the greatest attention.

We have an appropriate name for the organ; it is the Eye. And we have an appropriate name for the Object; it is light. But we have no appropriate name for the Sensation. From confusion of names, proceeds confusion of ideas. And from misnaming, on this one point, not a little



unprofitable discourse on the subject of the human mind has been derived.

The word sight, in certain phrases, denotes the sensation. If I am asked, what is the feeling which I have by the eye? I answer, sight. But sight is also a name of the object. The light of day is said to be a beautiful sight. And sight is sometimes employed as a name of the organ. An old man informs us, that his sight is failing, meaning that his eyes are failing.

Colour is a name, as well of the object, as of the sensation. It is most commonly a name of the object. Colour is, properly speaking, a modification of light, though it is never conceived but as something spread over a surface; it is, therefore, not the name of light simply, but the name of three things united, light, surface, and a certain position of the two. In many cases, however, we have no other name for the sensation. If I am asked, what feeling I have when a red light is presented to my eyes, I can only say, the colour of red; and so of other visual feelings, the colour of green, the colour of white, and so on.

In the term sense of sight, the same complexity of meaning is involved which we have observed in the terms sense of smell, and sense of hearing. When I speak of my sense of sight, as when I speak of the attraction of the load-stone, I mean to denote an antecedent, and a conse-

quent; the organ with its object in appropriate position, the antecedent; the sensation, the consequent. This is merely the philosophical statement of the fact, that, when light is received into the eye, the sensation of sight is the consequence.

Vision, a word expressive of the phenomena of sight, is ambiguous in the same manner. It is sometimes used to denote the sense of seeing; that is, the antecedent and consequent, as explained in the preceding paragraph. Thus we say, the phenomena of vision, with the same propriety as we say the phenomena of sight. It is sometimes employed to denote the sensation. If we ask what feeling a blind man is deprived of, it would be perfectly proper to say, vision is the feeling of which he is deprived. It is, also, employed to denote the object. What vision was that? would be a very intelligible question, on the sudden appearance and disappearance of something which attracted the eye.

## SECTION IV.

## TASTE.

The ORGAN of TASTE is in the mouth and fauces.

In ordinary language, the OBJECT of taste is any thing, which, taken into the mouth, and tasted, as it is called, produces the peculiar SENSATION of this sense. Nor has philosophy as yet enabled us to state the object of taste more correctly. There are experiments which show, that galvanism is concerned in the phenomena, but not in what way.

The SENSATION, in this case, is distinguished by every body. The taste of sugar, the taste of an apple, are words which immediately recall the ideas of distinct feelings. It is to be observed, however, that the feelings of this sense are very often united with those of the sense of smell; the two organs being often affected by the same thing, at the same time. In that case, though we have two sensations, they are so intimately blended as to seem but one; and the flavour of the apple, the flavour of the wine, appears to be a simple sensation, though compounded of taste and smell.

It is not so easy, in the case of this, as of some of the other senses, to conceive ourselves as having this class of feelings and no other. Ante-

cedent to the sensation of taste, there is generally some motion of the mouth, by which the object and the organ are brought into the proper position and state. The sensation can hardly be thought of without thinking of this motion, that is, of other feelings. Besides, the organ of taste is also the organ of another sense. The organ of taste has the sense of touch, and most objects of taste are objects of touch. Sensations of touch, therefore, are intimately blended with those of taste.

By a little pains, however, any one may conceive the sensations of tasting, while he conceives his other organs to remain in a perfectly inactive state, and himself as nothing but a passive recipient of one taste after another. If he conceives a mere train of those sensations, perfectly unmixed with any other feeling, he will have the conception of a being made up of tastes; a thread of consciousness, which may be called mere taste; a life which is merely taste.

The language employed about this sense is not less faulty, than that employed about the other senses, which we have already surveyed.

There is no proper name for the organ. The word Mouth, which we are often obliged to employ for that purpose, is the name of this organ and a great deal more.

There is no proper name for the object. We are obliged to call it, that which has taste. The

word flavour is used to denote that quality, which is more peculiarly the object of taste, in certain articles of food ; and sometimes we borrow the word sapidity, from the Latin, to answer the same purpose more extensively.

The word taste is a name for the sensation. We generally call the feeling, which is the point of consciousness in this case, by the name taste. Thus we say one taste is pleasant, another unpleasant ; and nothing is pleasant or unpleasant but a feeling.

The word taste is also a name for the object, as when we say, that any thing has taste.

It is further employed as a name of the organ. As we are said to perceive qualities by the eye, the ear, and the touch ; so we are said to perceive them by the taste.

In the phrase, sense of taste, there is the same complexity of meaning as we have observed in the corresponding phrase in the case of the other senses. In this phrase, taste expresses all the leading particulars ; the organ, the object, and the sensation, together with the order of position in the two first, and the order of constant sequence in the last.



## SECTION V.

## TOUCH.

In discoursing about the ORGAN, the SENSATIONS, and the OBJECTS, of touch, more vagueness has been admitted, than in the case of any of the other senses.

In fact, every sensation which could not properly be assigned to any other of the senses, has been allotted to the touch. The sensations classed, or rather jumbled together, under this head, form a kind of miscellany, wherein are included feelings totally unlike.

The ORGAN of TOUCH is diffused over the whole surface of the body, and reaches a certain way into the alimentary canal. Of food, as merely tangible, there is seldom a distinct sensation in the stomach, or any lower part of the channel, except towards the extremity. The stomach, however, is sensible to heat, and so is the whole of the alimentary canal, as far at least as any experiment is capable of being made. It may, indeed, be inferred, that we are insensible to the feelings of touch, throughout the intestinal canal, only from the habit of not attending to them.

We have next to consider the OBJECT of TOUCH. Whatever yields resistance, and what-

ever is extended, figured, hot, or cold, we set down, in ordinary language, as objects of touch.

I shall show, when the necessary explanations have been afforded, that the idea of resistance, the idea of extension, and the idea of figure, include more than can be referred to the touch, as the ideas of visible figure and magnitude include more than can be referred to the eye. It has been long known, that many of the things, which the feeling by the eye seems to include, it only suggests. It is not less important to know, that the same is the case with the tactual feeling; that this also suggests various particulars which it has been supposed to comprehend.

In the present stage of our investigation, it is not expedient to push very far the inquiry, what it is, or is not, proper, to class as sensations of touch, because that can be settled with much greater advantage hereafter.

The sensations of heat and cold offer this advantage,—that being often felt without the accompaniment of any thing visible or extended, which can be called an object, they can be more distinctly conceived as simple feelings, than most of our other sensations. They are feelings very different from the ordinary sensations of touch; and possibly the only reason for classing them with those sensations was, that the organ of them, like that of touch, is diffused over the whole body. We know not that the nerves appropriated to

the sensations of heat and cold are the same with those which have the sensation of touch. If they be the same, they must at any rate be affected in a very different manner.

To whatever class we may refer the sensations of heat and cold, in their moderate degrees, it seems that good reasons may be given for not ranking them with the sensations of touch, when they rise to the degree of pain. All those acute feelings which attend the disorganization, or tendency toward disorganization, of the several parts of our frame, seem entirely distinct from the feelings of touch. Even in the case of cutting, or laceration, the mere touch of the knife or other instrument is one feeling, the pain of the cut, or laceration, another feeling, as much as, in the mouth, the touch of the sugar is one feeling, the sweetness of it another.

As we shall offer reasons hereafter to show, that the feelings of resistance, extension, and figure, are not feelings of touch, we should endeavour to conceive what feeling it is which remains when those feelings are taken away.

When we detach the feeling of resistance, we, of course, detach those of hardness and softness, roughness and smoothness, which are but different modifications of resistance. And when these, and the feelings of extension and figure, are detached, a very simple sensation seems to re-



main, the feeling which we have when something, without being seen, comes gently in contact with our skin, in such a way, that we cannot say whether it is hard or soft, rough or smooth, of what figure it is, or of what size. A sense of something present on the skin, and perhaps also on the interior parts of the body, taken purely by itself, seems alone the feeling of touch.

The feelings of this sense are mostly moderate, partaking very little of either pain or pleasure. This is the reason why the stronger feelings, which are connected with them, those of resistance, and extension, predominate in the groupe, and prevent attention to the sensations of touch. The sensations of touch operate as signs to introduce the ideas of resistance and extension, and are no more regarded.

The imperfection of the language which we employ, in speaking of this sense, deserves not less of our regard, than that of the language we employ, in speaking of our other senses.

We need distinct and appropriate names, for the organ, for the object, and for the sensation. We have no such name for any of them.

The word touch is made to stand for all the three. I speak of my touch, when I mean to denote my organ of touch. I speak also of my touch, when I mean to denote my sensation. And in some cases, speaking of the object, I call

it touch. If I were to call a piece of fine and brilliant velvet a fine sight, another person might say, it is a fine touch as well as fine sight.

In ordinary language, the word feeling is appropriated to this sense; though it has been found convenient, in philosophical discourse, to make the term generical, so as to include every modification of consciousness.\*

When I say that I feel the table, there is a considerable complexity of meaning. Dr. Reid, and his followers, maintain, that I have not one point of consciousness only, but two; that I feel the sensation, and that I feel the table; that the sensation is one thing, the feeling of the table another. Expositions which will be given hereafter are necessary to the complete elucidation of what takes place. But the explanations which have been already afforded will enable us to state the facts with considerable clearness. In what is called feeling the table, my organ of touch, and an object of touch, in the appropriate position, are the antecedent; of this antecedent, sensation is the consequent. The expression, "I feel the table," includes both the antecedent and the consequent. It does not mark the sensation alone; it marks the sensation, and, along with the sensa-

\* "The word *feeling*, though in many cases we use it as synonymous to *touching*, has, however, a much more extensive signification, and is frequently employed to denote our internal, as well as our external, affections. We feel hunger and thirst, we feel joy and sorrow, we feel love and hatred."—*Ad. Smith, on the External Senses.*

tion, its antecedent, namely, the organ, and its object in conjunction.

The phrase, sense of touch, or the word feeling, often synonymous, has the same complexity of meaning, which we have observed in the phrases, sense of hearing, sense of sight, and the rest of the senses.

When I say that I touch, or have the sense of touch, I mean to say, that I have a certain feeling, consequent upon a certain antecedent. The phrase, therefore, *notes* the sensation, and at the same time *connotes*\* the following things: 1st, the organ; 2dly, the object of the organ; 3dly, the synchronous order of the organ and object; 4thly, the successive order of the sensation; the synchronous order being, as usual, the antecedent of the successive order.†

\* The use, which I shall make, of the term *connotation*, needs to be explained. There is a large class of words, which denote two things, both together; but the one perfectly distinguishable from the other. Of these two things, also, it is observable, that such words express the one, *primarily*, as it were; the other, in a way which may be called *secondary*. Thus, *white*, in the phrase *white horse*, denotes two things, the colour, and the horse; but it denotes the colour *primarily*, the horse *secondarily*. We shall find it very convenient, to say, therefore, that it *notes* the primary, *connotes* the secondary, signification.

† The terms *synchronous* order, and *successive* order, will be fully explained hereafter, when any obscurity which may now seem to rest upon them will be removed; it may be useful at present to say, that, by synchronous order, is meant order in space, by successive order, order in time; the first, or order in space, being nothing but the placing or position of the objects at any given time; the second, or order in time, being nothing but the antecedence of the one, and the consequence of the other.

## SECTION VI.

## SENSATIONS OF DISORGANIZATION, OR OF THE APPROACH TO DISORGANIZATION, IN ANY PART OF THE BODY.

That we have sensations in parts of the body suffering, or approaching to, disorganization, does not require illustration. The disorganizations of which we speak proceed sometimes from external, sometimes from internal, causes. Lacerations, cuts, bruises, burnings, poisonings, are of the former kind; inflammation, and other diseases in the parts, are the latter.

These sensations are specifically different from those classed under the several heads of sense. The feelings themselves, if attended to, are evidence of this. In the next place, they have neither organ, nor object, in the sense in which those latter feelings have them. We do not talk of an organ of burning; an organ of pain; nor do we talk of an object of any of them; we do not say the object of a cut, the object of an ache, the object of a sore.

Most of those sensations are of the painful kind; though some are otherwise. Some slight, or locally minute inflammations, produce a sensation called itching, which is far from disagreeable, as appears from the desire to scratch, which excites it.

The scratching, which excites the pleasure of itching, is a species of friction, and friction, in most parts of the body, excites a sensation very different from the mere sense of touching or the simple feeling of the object. The tickling of the feather in the nose, for example, is very different from the mere feeling of the feather in touch. In some parts of the body the most intense sensations are produced by friction.

There is difficulty in classing those sensations. They are not the same with those of any of the five senses : and they are not the same with those which rise from any tendency to disorganization in the parts of the body to which they are referred. Great accuracy, however, in the classification of the sensations, is not essential to that acquaintance with them, which is requisite for the subsequent parts of this inquiry. It will suffice for our purpose, if the reader so far attend to them, as to be secure from the danger of overlooking or mistaking them, where a distinct consideration of them is necessary for developing any of the complicated phenomena in which they are concerned.



## SECTION VII.

MUSCULAR SENSATIONS, OR THOSE FEELINGS WHICH ACCOMPANY THE ACTION OF THE MUSCLES.

There is no part of our Consciousness, which deserves greater attention than this ; though, till lately, it has been miserably overlooked. Hartley, Darwin, and Brown, are the only philosophical inquirers into Mind, at least in our own country, who seem to have been aware that it fell within the province of their speculations.

The muscles are bundles of fibres, which, by their contraction and relaxation, produce all the motions of the body. The nerves, with which they are supplied, seem to be the immediate instruments of the muscular action.

That these muscles have the power of acute sensation, we know, by what happens, when they are diseased, when they suffer any external injury, or even when, the integuments being removed, they can be touched, though ever so gently.

It has been said \*, that if we had but one sen-

\* Itaque et sensioni adhæret, proprie dictæ, ut ei aliqua insita sit perpetuo phantasmatum varietas, ita ut aliud ab alio discerni possit. Si supponeremus, enim, esse hominem, oculis quidem claris cæterisque videndi organis recte se habentibus compositum, nullo autem alio sensu præditum, eumque ad eandem rem eodem

sation, and that uninterrupted, it would be as if we had no sensation at all; and, to the justice of this observation, some very striking facts appear to bear evidence. We know that the air is continually pressing upon our bodies. But, the sensation being continual, without any call to attend to it, we lose, from habit, the power of doing so. The sensation is as if it did not exist. We feel the air when it is in motion, or when it is hotter or colder, to a certain degree, than our bodies; but it is because we have the habit of attending to it in those states. As the muscles are always in contact with the same things, the sensations of the muscles must be almost constantly the same. This is one reason why they are very little attended to, and, amid the crowd of other feelings, are, in general, wholly forgotten. They are of that class of feelings which occur as antecedents to other more interesting feelings. To these the attention is immediately called off, and those which preceded and introduced them are forgotten. In such cases the thought of the less interesting sensations is merged in that of the more interesting.

semper colore et specie sine ulla vel minima varietate apparentem obversum esse, mihi certe, quicquid dicant alii, non magis videre videretur, quam ego videor mihi per tactûs organa sentire lacertorum meorum ssa. Ea tamen perpetuo et undequaque sensibilissima membrana continguntur.—Adeo sentire semper idem, et non sentire, ad idem recidunt. *Hobbes, Elem. Philos. Pars IV. c. xxv. § 5.*

If we had not direct proof, analogy would lead us to conclude, that no change could take place, in parts of so much sensibility as the muscles, without a change of feeling; in particular, that a distinguishable feeling must attend every contraction, and relaxation. We have proof that there is such a feeling, because intimation is conveyed to the mind that the relaxation or contraction is made. I will, to move my arm; and though I observe the motion by none of my senses, I know that the motion is made. The feeling that attends the motion has existed. Yet so complete is my habit of attending only to the motion, and not to the feeling, that no attention can make me distinctly sensible that I have it. Nay, there are some muscles of the body in constant and vehement action, as the heart, of the feelings attendant upon the action of which we seem to have no cognisance at all. That this is no argument against the existence of those feelings, will be made apparent, by the subsequent explanation of other phenomena, in which the existence of certain feelings, and an acquired incapacity of attending to them, are out of dispute.

In most cases of the muscular feelings, there is not only that obscurity, of which we have immediately spoken, but great complexity; as several muscles almost always act together; in many of the common actions of the body, a great number.

The result of these complex feelings is often



sufficiently perceptible, though the feelings, separately, can hardly be made objects of attention. The unpleasant feeling of fatigue, in part at least a muscular feeling, is one of those results. The pleasure which almost all the more perfect animals, especially the young, appear to feel, in even violent exercise, may be regarded as another. The restlessness of a healthy child; the uneasiness in confinement, the delight in the activity of freedom, which so strongly distinguish the vigorous schoolboy; seem to indicate, both a painful state of the muscular system in rest, and a pleasurable state of it in action. Who has not remarked the playful activity of the kitten and the puppy? The delight of the dog, on being permitted to take exercise with his master, extends through the greater part of his life.

One of the cases in which the feeling of muscular action seems the most capable of being attended to, is the pleasure accompanying the act of stretching, which most animals perform in drowsiness, or after sleep.

A very slight degree of reflection is sufficient to evince, that we could not have had the idea of resistance, which forms so great a part of what we call our idea of matter, without the feelings which attend muscular action. Resistance means a force opposed to a force; the force of the object, opposed to the force which we apply to it. The force which we apply is the action of our muscles,

which is only known to us by the feelings which accompany it. Our idea of resistance, then, is the idea of our own feelings in applying muscular force. It is true, that the mere feeling of the muscles in action is not the only feeling concerned in the case. The muscles move in consequence of the Will; and what the Will is, we are not as yet prepared to explain. What is necessary at present is, not to shew all the simple feelings which enter into the feeling of resistance; but to shew that the simple feeling of muscular action is one of them.

The feeling of resistance admits of great varieties. The feeling of a plate of iron is one thing, the feeling of a blown bladder is another, the feeling of quick-silver is a third, the feeling of water a fourth, and so on. The feeling of weight, or attraction, is also a feeling of resistance.

## SECTION VIII.

## SENSATIONS IN THE ALIMENTARY CANAL

WHEN the sensations in the alimentary canal become acutely painful, they are precise objects of attention to every body.

There is reason to believe that a perpetual train of sensations is going on in every part of it. The food stimulates the stomach. It undergoes important changes, and, mixed with some very stimulating ingredients, passes into the lower intestines; in every part of which it is still farther changed. The degree, and even the nature, of some of the changes, are different, according as the passage through the canal is slower, or quicker; they are different, according to the state of the organs, and according to the nature of the food.

Of the multitude of sensations, which must attend this process, very few become objects of attention; and, in time, an incapacity is generated, of making them objects of attention. They are not, however, as we shall afterwards perceive, feeble agents, or insignificant elements, in the trains of thought. They are of that class of feelings, to which we have already been under the necessity of alluding; a class, which serve as antecedents, to feelings more interesting than them-

selves ; and from which the attention is so instantaneously drawn, to the more interesting feelings by which they are succeeded, that we are as little sensible of their existence, as we often are of the sound of the clock, which may strike in the room beside us, and of course affect our ear in the usual manner, and yet leave no trace of the sensations behind.

The complicated sensations in the intestinal canal, like those in the muscles, though obscure, and even unknown, as individual sensations, often constitute a general state of feeling, which is sometimes exhilarating, and sometimes depressing. The effects of opium, and of inebriating liquors, in producing exhilaration, are well known ; and though much of the pleasure in these states is owing to association, as we shall afterwards explain, yet the agreeable feelings in the stomach, are the origin and cause of the joyous associations. The state of feeling in the stomach in sea-sickness, or under the operation of an emetic, is, on the contrary, one of the most distressing within our experience ; though we can neither call it a pain, nor have any more distinct conception of it, than as a state of general uneasiness.

The general effects of indigestion are well known. When the organs of digestion become disordered, and indigestion becomes habitual, a sense of wretchedness is the consequence ; a general

state of feeling composed of a multitude of minor feelings, none of which individually can be made an object of attention.

In the sense of wretchedness, which accompanies indigestion, and which sometimes proceeds to the dreadful state of melancholy madness, it is difficult to say, how much is sensation, and how much association. One thing is certain; that sensations which are the origin of so much misery are of high importance to us; whether they, or the associations they introduce, are the principal ingredient in the afflicting state which they contribute to create.

The effects of indigestion in producing painful associations, is strikingly exemplified by the horrible dreams which it produces in sleep; not only in those whose organs are diseased; but in the most healthy state of the stomach, when it has received what, in ordinary language, is said, whether from quantity or quality, to have disagreed with it.

The general states of feeling composed of the multitude of obscure and unnoticed feelings in the alimentary canal, though most apt to be noticed when they are of the painful kind, are not less frequently of the pleasurable kind. That particular sorts of foods, as well as liquors, have an exhilarating effect, needs hardly to be stated. And it is only necessary to revive the recollection of



the feeling of general comfort, the elasticity, as it seems, of the whole frame, the feeling of strength, the disposition to activity and enjoyment, which every man must have experienced, when his digestion was vigorous and sound.

## CHAPTER II.

## IDEAS.

“ Hæc in genere sors esse solet humana, ut quid in quovis genere recte aut cogitari aut effici possit sentiant prius quam perspiciant. Laborem autem haud ita levem illum veriti, qui in eo impendendus erat ut, ideas operatione analytica penitus evolventes, quid tandem velint, aut quænam res agatur, sibi ipsis rationem sufficientem reddant, confusis, aut saltem haud satis explicatis rationibus, ratiocinia, et scientiarum adeo systemata superstruere solent communiter, eoque confidentius, quo ejus quam tractant scientiæ fundamentum solidum magis ignorant.” *Schmidt-Phiseldek, Philos. Criticæ Expositio Systematica*, t. i. p. 561.

“ Pour systematiser une science, c’est-à-dire, pour ramener une suite de phénomènes à leur principe, à un phénomène élémentaire qui engendre successivement tous les autres, il faut saisir leurs rapports, le rapport de génération qui les lie ; et pour cela, il est clair qu’il faut commencer par examiner ces différens phénomènes séparément.” *Cousin, Fragm. Philos.* p. 8.

THE sensations which we have through the medium of the senses exist only by the presence of the object, and cease upon its absence ; nothing being here meant by the presence of the object, but that position of it with respect to the organ, which is the antecedent of the sensation ; or by its absence, but any other position.

It is a known part of our constitution, that when our sensations cease, by the absence of their objects, something remains. After I have seen the sun, and by shutting my eyes see him no longer, I can still think of him. I have still a feeling, the consequence of the sensation, which, though I can distinguish it from the sensation, and treat it as not the sensation, but something different from the sensation, is yet more like the sensation, than any thing else can be ; so like, that I call it a copy, an image, of the sensation ; sometimes, a representation, or trace, of the sensation.

Another name, by which we denote this trace, this copy, of the sensation, which remains after the sensation ceases, is IDEA. This is a very convenient name, and it is that by which the copies of the sensation thus described will be commonly denominated in the present work. The word IDEA, in this sense, will express no theory whatsoever ; nothing but the bare fact, which is indisputable. We have two classes of feelings ; one, that which exists when the object of sense is present ; another, that which exists after the object of sense has ceased to be present. The one class of feelings I call SENSATIONS ; the other class of feelings I call IDEAS.

It is an inconvenience, that the word IDEA is used with great latitude of meaning, both in ordinary, and in philosophical discourse ; and it will not be always expedient that I should avoid

using it in senses different from that which I have now assigned. I trust, however, I shall in no case leave it doubtful, in what sense it is to be understood.

The term Sensation has a double meaning. It signifies not only an individual sensation; as when I say, I smell this rose, or I look at my hand : but it also signifies the general faculty of sensation; that is, the complex notion of all the phenomena together, as a part of our nature.

The word Idea has only the meaning which corresponds to the first of those significations; it denotes an individual idea; and we have not a name for that complex notion which embraces, as one whole, all the different phenomena to which the term Idea relates. As we say Sensation, we might say also, Ideation; it would be a very useful word; and there is no objection to it, except the pedantic habit of decrying a new term. Sensation would in that case be the general name for one part of our constitution, Ideation for another.

It is of great importance, before the learner proceeds any farther, that he should not only have an accurate conception of this part of his constitution; but should acquire, by repetition, by complete familiarity, a ready habit of marking those immediate copies of his sensations, and of distinguishing them from every other phenomenon of his mind.

It has been represented, that the sensations of

sight and hearing leave the most vivid traces ; in other words, that the ideas corresponding to those sensations, are clearer than others. But what is meant by clearer and more vivid in this case, is not very apparent.

If I have a very clear idea of the colour of the trumpet which I have seen, and a very clear idea of its sound which I have heard, I have no less clear ideas of its shape, and of its size ; ideas of the sensations, neither of the eye, nor of the ear.

It is not easy, in a subject like this, to determine what degree of illustration is needful. To those who are in the habit of distinguishing their mental phenomena, the subject will appear too simple to require illustration. To those who are new to this important operation, a greater number of illustrations would be useful, than I shall deem it advisable to present.

It is necessary to take notice, that, as each of our senses has its separate class of sensations, so each has its separate class of ideas. We have ideas of Sight, ideas of Touch, ideas of Hearing, ideas of Taste, and ideas of Smell.

1. By Sight, as we have sensations of red, yellow, blue, &c., and of the innumerable modifications of them, so have we ideas of those colours. We can think of those colours in the dark ; that is, we have a feeling or consciousness, which is not the same with the sensation, but which we contemplate as a copy of the sensation, an image of



it; something more like it, than any thing else can be; something which remains with us, after the sensation is gone, and which, in the train of thought, we can use as its representative.

2. The sensations of Touch, according to the limitation under which they should be understood, are not greatly varied. The gentle feeling, which we derive from the mere contact of an object, when we consider it apart from the feeling of resistance, and apart from the sensation of heat or cold, is not very different, as derived from different objects. The idea of this tactual feeling, therefore, is not vivid, nor susceptible of many modifications. On the other hand, our ideas of heat and cold, the feelings which we call the thought of them, existing when the sensations no longer exist, are among the most distinct of the feelings which we distinguish by the name of ideas.

3. I hear the Sound of thunder; and I can think of it after it is gone. This feeling, the representative of the mere sound, this thinking, or having the thought of the sound, this state of consciousness, is the idea. The hearing of the sound is the primary state of consciousness; the idea of the sound is the secondary state of consciousness; which exists only when the first has previously existed.

The number of sounds, of which we can have distinct ideas, as well as distinct sensations, is

immense. We can distinguish all animals by their voices. When I hear the horse neigh, I know it is not the voice of the ox. Why? Because I have the idea of the voice of the ox, so distinct, that I know the sensation I have, is different from the sensation of which that is the copy or representative. We can distinguish the sounds of a great number of different musical instruments, by the same process. The men, women, and children, of our intimate acquaintance, we can distinguish, and name, by their voices; that is, we have an idea of the past sensation, which enables us to declare, that the present is the voice of the same person.

4. That the sensations of Taste recur in thought, when the sensation no longer exists, is a point of every man's experience. This recurring, in thought, of the feeling which we had by the sense, when the feeling by the sense is gone, is the idea of that feeling, the secondary state of consciousness, as we named it above. That we can distinguish a very great number of tastes, and distinguish them accurately, is proof that we have a vast number of distinct ideas of taste; because, for the purpose of making such distinction, we have just seen that there must be a sensation and an idea; the sensation of the present object, and the idea of the sensation of each of the other objects from which we distinguish it. You have tasted port wine, and you have tasted claret; when you taste

claret again, you can distinguish it from port wine; that is, you have the idea of the taste of port wine, in conjunction with the sensation of claret. You call it bad claret. Why? Because, along with the present taste, you have the idea of another, which, when it was sensation, was more agreeable than the present sensation.

5. Since we distinguish smells, as well as tastes, we have the same proof of the number and distinctness of the ideas of this class of sensations. There is none of the numerous smells to which we have been accustomed, which we do not immediately recognize. But for that recognition the idea of the past sensation must be conjoined with the present sensation.

6. Of that class of sensations, which I have called sensations of disorganization, we have also ideas. We are capable of having the thought of them when the sensation is gone; and that thought is the idea. A spark from the candle flew upon my hand: I had the sensation of burning. I at this moment think of that sensation; that is, I have the idea of that sensation; and I can think of it, as different from ten thousand other painful sensations; that is, I have ideas of as many other sensations of this class.

7. The ideas of the sensations which attend the action of the muscles are among the most important of the elements which constitute our being. From these we have the ideas of resistance, of com-

pressibility, of hardness, of softness, of roughness, of smoothness, of solidity, of liquidity, of weight, of levity, of extension, of figure, of magnitude, of whole and of parts, of motion, of rest. It is, indeed, to be observed, that these are all complex ideas, and that other feelings than the mere muscular feeling are concerned in their composition. In almost all the ideas referrible to the muscular feelings, of sufficient importance to have names, the Will is included. The muscular action is the consequent, the Will the antecedent ; and the name of the idea, includes both. Thus the idea of resistance is the thought, or idea, of the feelings we have, when we will to contract certain muscles, and feel the contraction impeded.

There is no feeling of our nature of more importance to us, than that of resistance. Of all our sensations, it is the most unintermitted ; for, whether we sit, or lie, or stand, or walk, still the feeling of resistance is present to us. Every thing we touch, at the same time resists ; and every thing we hear, see, taste, or smell, suggests the idea of something that resists. It is through the medium of resistance, that every act, by which we subject to our use the objects and laws of nature, is performed. And, of the complex states of consciousness, which the philosophy of mind is called upon to explain, there is hardly one, in which the feeling or idea of resistance is not included.

It is partly owing to this combination of



something else with the muscular feeling, in all the states of consciousness to which we have given names, that it is so difficult to think of the mere muscular feeling by itself; that our notion of the muscular sensations is so indistinct and obscure; and that we can rather be said to have ideas of certain general states of muscular feeling, as of fatigue, or activity, composed of a great number of individual feelings, than of the individual feelings themselves.

8. As the feelings, or sensations which we have in the intestinal canal, are almost always mixed up indistinctly with other feelings, and, except in the cases of acute pain, are seldom taken notice of but as constituting general states, we hardly have the power of thinking of those sensations one by one; and, in consequence, can hardly be said to have ideas of them. They are important, as forming component parts of many complex ideas, which have great influence on our happiness. But to unfold the mystery of complex ideas, other parts of our mental process have yet to be explained.

There is a certain distressful feeling, called the feeling of bad health, which is considerably different in different cases, but in which sensations of the intestinal canal are almost always a material part.

Indigestion is the name of an idea, in which the feelings of the intestinal canal are mainly concerned.



Hunger, and thirst, are also names of ideas, which chiefly refer to sensations in the same part of our system.

It is proper to remark, that, beside the internal feelings to which I have hitherto directed the reader's attention, there are others, which might be classed, and considered apart. The blood-vessels, for example, and motion of the blood, constitute an important part of our System, not without feelings of its own; feelings sometimes amounting to states which seriously command our attention. Of the feelings which accompany fever, a portion may reasonably be assigned to the change of action in the blood-vessels.

There are states of feeling, very distinguishable, accompanying diseased states of the heart, and of the nervous and arterial systems.

Beside the blood and its vessels, the glandular system is an important part of the active organs of the body; not without sensibility, and of course, not without habitual sensations. The same may be said of the system of the absorbents, of the lymphatics, and of the vascular system in general.

The state of the nerves and brain, the most wonderful part of our system, is susceptible of changes, and these changes are accompanied with known changes of feeling. There is a class of diseases which go by the name of nervous diseases: and though they are not a very definite class;

though it is not even very well ascertained how far any morbid state of the nerves has to do with them ; it is not doubtful that in some of those diseases there are peculiar feelings, which ought to be referred to the nerves. The nerves and brain may thus be, not only the organs of sensations, derived from other senses, but organs of sensations, derived from themselves. On this subject we cannot speak otherwise than obscurely, because we have not distinct names for the things which are to be expressed.

It is not, however, necessary, in tracing the simple feelings which enter into the more complex states of consciousness, to dwell upon the obscurer classes of our inward sensations ; because it is only in a very general way that we can make use of them, in expounding the more mysterious phenomena. Having never acquired the habit of attending to them, and having, by the habit of inattention, lost the power of remarking them, except in their general results, we can do little more than satisfy ourselves of the cases in which they enter for more or less of the effect.

We have now considered what it is to have sensations, in the simple, uncompounded cases ; and what it is to have the secondary feelings, which are the consequences of those sensations, and which we consider as their copies, images, or representatives. If the illustrations I have employed have enabled my reader to familiarize himself

with this part of his constitution, he has made great progress towards the solution of all that appears intricate in the phenomena of the human mind. He has acquainted himself with the two primary states of consciousness ; the varieties of which are very numerous ; and the possible combinations of which are capable of composing a train of states of consciousness, the diversities of which transcend the limits of computation.

## CHAPTER III.

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### THE ASSOCIATION OF IDEAS.

“ To have a clear view of the phenomena of the mind, as mere affections or states of it, existing successively, and in a certain series, which we are able, therefore, to predict, in consequence of our knowledge of the past, is, I conceive, to have made the most important acquisition which the intellectual inquirer can make.”

*Brown, Lectures, i. 544.*

THOUGHT succeeds thought ; idea follows idea, incessantly. If our senses are awake, we are continually receiving sensations, of the eye, the ear, the touch, and so forth ; but not sensations alone. After sensations, ideas are perpetually excited of sensations formerly received ; after those ideas, other ideas : and during the whole of our lives, a series of those two states of consciousness, called sensations, and ideas, is constantly going on. I see a horse : that is a sensation. Immediately I think of his master : that is an idea. The idea of his master makes me think of his office ; he is a minister of state : that is another idea. The

idea of a minister of state makes me think of public affairs; and I am led into a train of political ideas; when I am summoned to dinner. This is a new sensation, followed by the idea of dinner, and of the company with whom I am to partake it. The sight of the company and of the food are other sensations; these suggest ideas without end; other sensations perpetually intervene, suggesting other ideas: and so the process goes on.

In contemplating this train of feelings, of which our lives consist, it first of all strikes the contemplator, as of importance to ascertain, whether they occur casually and irregularly, or according to a certain order.

With respect to the SENSATIONS, it is obvious enough that they occur, according to the order established among what we call the objects of nature, whatever those objects are; to ascertain more and more of which order is the business of physical philosophy in all its branches.

Of the order established among the objects of nature, by which we mean the objects of our senses, two remarkable cases are all which here we are called upon to notice; the SYNCHRONOUS ORDER, and the SUCCESSIVE ORDER. The synchronous order, or order of simultaneous existence, is the order in space; the successive order, or order of antecedent and consequent existence, is the order in time. Thus the various objects in my room, the chairs, the tables, the books, have the synchronous order; or order in space. The falling



of the spark, and the explosion of the gunpowder, have the successive order, or order in time.

According to this order, in the objects of sense, there is a synchronous, and a successive, order of our sensations. I have SYNCHRONICALLY, or at the same instant, the sight of a great variety of objects; touch of all the objects with which my body is in contact; hearing of all the sounds which are reaching my ears; smelling of all the smells which are reaching my nostrils; taste of the apple which I am eating; the sensation of resistance both from the apple which is in my mouth, and the ground on which I stand; with the sensation of motion from the act of walking. I have SUCCESSIVELY the sight of the flash from the mortar fired at a distance, the hearing of the report, the sight of the bomb, and of its motion in the air, the sight of its fall, the sight and hearing of its explosion, and lastly, the sight of all the effects of that explosion.

Among the objects which I have thus observed, synchronically, or successively; that is, from which I have had synchronical or successive sensations; there are some which I have so observed frequently; others which I have so observed not frequently: in other words, of my sensations some have been frequently synchronical, others not frequently; some frequently successive, others not frequently. Thus, my sight of roast beef, and my taste of roast beef, have been frequently SYNCHRONICAL; my smell of a rose, and my sight

and touch of a rose, have been frequently synchronical ; my sight of a stone, and my sensations of its hardness, and weight, have been frequently synchronical. Others of my sensations have not been frequently synchronical : my sight of a lion, and the hearing of his roar ; my sight of a knife, and its stabbing a man. My sight of the flash of lightning, and my hearing of the thunder, have been often SUCCESSIVE ; the pain of cold, and the pleasure of heat, have been often successive ; the sight of a trumpet, and the sound of a trumpet, have been often successive. On the other hand, my sight of hemlock, and my taste of hemlock, have not been often successive : and so on.

It so happens, that, of the objects from which we derive the greatest part of our sensations, most of those which are observed synchronically, are frequently observed synchronically ; most of those which are observed successively, are frequently observed successively. In other words, most of our synchronical sensations, have been frequently synchronical ; most of our successive sensations, have been frequently successive. Thus, most of our synchronical sensations are derived from the objects around us, the objects which we have the most frequent occasion to hear and see ; the members of our family ; the furniture of our houses ; our food ; the instruments of our occupations or amusements. In like manner, of those sensations which we have had in succession, we have had the greatest number repeatedly in succession ; the

sight of fire, and its warmth ; the touch of snow, and its cold ; the sight of food, and its taste.

Thus much with regard to the order of SENSATIONS ; next with regard to the order of IDEAS.

As ideas are not derived from objects, we should not expect their order to be derived from the order of objects ; but as they are derived from sensations, we might by analogy expect, that they would derive their order from that of the sensations ; and this to a great extent is the case.

Our ideas spring up, or exist, in the order in which the sensations existed, of which they are the copies.

This is the general law of the “ Association of Ideas ” ; by which term, let it be remembered, nothing is here meant to be expressed, but the order of occurrence.

In this law, the following things are to be carefully observed.

1. Of those sensations which occurred synchronically, the ideas also spring up synchronically. I have seen a violin, and heard the tones of the violin, synchronically. If I think of the tones of the violin, the visible appearance of the violin at the same time occurs to me. I have seen the sun, and the sky in which it is placed, synchronically. If I think of the one, I think of the other at the same time.

One of the cases of synchronical sensation, which deserves the most particular attention, is,

that of the several sensations derived from one and the same object; a stone, for example, a flower, a table, a chair, a horse, a man.

From a stone I have had, synchronically, the sensation of colour, the sensation of hardness, the sensations of shape, and size, the sensation of weight. When the idea of one of these sensations occurs, the ideas of all of them occur. They exist in my mind synchronically; and their synchronical existence is called the idea of the stone; which, it is thus plain, is not a single idea, but a number of ideas in a particular state of combination.

Thus, again, I have smelt a rose, and looked at, and handled a rose, synchronically; accordingly the name rose suggests to me all those ideas synchronically; and this combination of those simple ideas is called my idea of the rose.

My idea of an animal is still more complex. The word thrush, for example, not only suggests an idea of a particular colour and shape, and size, but of song, and flight, and nestling, and eggs, and callow young, and others.

My idea of a man is the most complex of all; including not only colour, and shape, and voice, but the whole class of events in which I have observed him either the agent or the patient.

2. As the ideas of the sensations which occurred synchronically, rise synchronically, so the ideas of the sensations which occurred successively, rise successively.



Of this important case of association, or of the successive order of our ideas, many remarkable instances might be adduced. Of these none seems better adapted to the learner than the repetition of any passage, or words; the Lord's Prayer, for example, committed to memory. In learning the passage, we repeat it; that is, we pronounce the words, in successive order, from the beginning to the end. The order of the sensations is successive. When we proceed to repeat the passage, the ideas of the words also rise in succession, the preceding always suggesting the succeeding, and no other. *Our* suggests *Father*, *Father* suggests *which*, *which* suggests *art*; and so on, to the end. How remarkably this is the case, any one may convince himself, by trying to repeat backwards, even a passage with which he is as familiar as the Lord's Prayer. The case is the same with numbers. A man can go on with the numbers in the progressive order, one, two, three, &c. scarcely thinking of his act; and though it is possible for him to repeat them backward, because he is accustomed to subtraction of numbers, he cannot do so without an effort.

Of witnesses in courts of justice it has been remarked, that eye-witnesses, and ear-witnesses, always tell their story in the chronological order; in other words, the ideas occur to them in the order in which the sensations occurred; on the other hand, that witnesses, who are inventing, rarely adhere to the chronological order.



3. A far greater number of our sensations are received in the successive, than in the synchronical order. Of our ideas, also, the number is infinitely greater that rise in the successive than the synchronical order.

4. In the successive order of ideas, that which precedes, is sometimes called the suggesting, that which succeeds, the suggested idea ; not that any power is supposed to reside in the antecedent over the consequent ; suggesting, and suggested, mean only antecedent and consequent, with the additional idea, that such order is not casual, but, to a certain degree, permanent.

5. Of the antecedent and consequent feelings, or the suggesting, and suggested ; the antecedent may be either sensations or ideas ; the consequent are always ideas. An idea may be excited either by a sensation or an idea. The sight of the dog of my friend is a sensation, and it excites the idea of my friend. The idea of Professor Dugald Stewart delivering a lecture, recalls the idea of the delight with which I heard him ; that, the idea of the studies in which it engaged me ; that, the trains of thought which succeeded ; and each epoch of my mental history, the succeeding one, till the present moment ; in which I am endeavouring to present to others what appears to me valuable among the innumerable ideas of which this lengthened train has been composed.

6. As there are degrees in sensations, and de-

degrees in ideas; for one sensation is more vivid than another sensation, one idea more vivid than another idea; so there are degrees in association. One association, we say, is stronger than another: First, when it is more permanent than another: Secondly, when it is performed with more certainty: Thirdly, when it is performed with more facility.

It is well known, that some associations are very transient, others very permanent. The case which we formerly mentioned, that of repeating words committed to memory, affords an apt illustration. In some cases, we can perform the repetition, when a few hours, or a few days have elapsed; but not after a longer period. In others, we can perform it after the lapse of many years. There are few children in whose minds some association has not been formed between darkness and ghosts. In some this association is soon dissolved; in some it continues for life.

In some cases the association takes place with less, in some with greater certainty. Thus, in repeating words, I am not sure that I shall not commit mistakes, if they are imperfectly got; and I may at one trial repeat them right, at another wrong: I am sure of always repeating those correctly, which I have got perfectly. Thus, in my native language, the association between the name and the thing is certain; in a language with which I am imperfectly acquainted, not cer-

tain. In expressing myself in my own language, the idea of the thing suggests the idea of the name with certainty. In speaking a language with which I am imperfectly acquainted, the idea of the thing does not with certainty suggest the idea of the name; at one time it may, at another not.

That ideas are associated in some cases with more, in some with less facility, is strikingly illustrated by the same instance, of a language with which we are well, and a language with which we are imperfectly, acquainted. In speaking our own language, we are not conscious of any effort; the associations between the words and the ideas appear spontaneous. In endeavouring to speak a language with which we are imperfectly acquainted, we are sensible of a painful effort: the associations between the words and ideas being not ready, or immediate.

7. The causes of strength in association seem all to be resolvable into two; the vividness of the associated feelings; and the frequency of the association.

In general, we convey not a very precise meaning, when we speak of the vividness of sensations and ideas. We may be understood when we say that, generally speaking, the sensation is more vivid than the idea; or the primary, than the secondary feeling; though in dreams, and in delirium, ideas are mistaken for sensations. But when

we say that one sensation is more vivid than another, there is much more uncertainty. We can distinguish those sensations which are pleasurable, and those which are painful, from such as are not so; and when we call the pleasurable and painful more vivid, than those which are not so, we speak intelligibly. We can also distinguish degrees of pleasure, and of pain; and when we call the sensation of the higher degree more vivid than the sensation of the lower degree, we may again be considered as expressing a meaning tolerably precise.

In calling one IDEA more vivid than another, if we confine the appellation to the ideas of such SENSATIONS as may with precision be called more or less vivid; the sensations of pleasure and pain, in their various degrees, compared with sensations which we do not call either pleasurable or painful; our language will still have a certain degree of precision. But what is the meaning which I annex to my words, when I say, that my idea of the taste of the pine-apple which I tasted yesterday is vivid; my idea of the taste of the foreign fruit which I never tasted but once in early life, is not vivid? If I mean that I can more certainly distinguish the more recent, than the more distant sensation, there is still some precision in my language; because it seems true of all my senses, that if I compare a distant sensation with a present, I am less sure of its being or not being a repetition of the same, than if I compare a re-



cent sensation with a present one. Thus, if I yesterday had a smell of a very peculiar kind, and compare it with a present smell, I can judge more accurately of the agreement or disagreement of the two sensations, than if I compared the present with one much more remote. The same is the case with colours, with sounds, with feelings of touch, and of resistance. It is therefore sufficiently certain, that the idea of the more recent sensation affords the means of a more accurate comparison, generally, than the idea of the more remote sensation. And thus we have three cases of vividness, of which we can speak with some precision: the case of sensations, as compared with ideas; the case of pleasurable and painful sensations, and their ideas, as compared with those which are not pleasurable or painful; and the case of the more recent, compared with the more remote.

That the association of two ideas, but for once, does, in some cases, give them a very strong connection, is within the sphere of every man's experience. The most remarkable cases are probably those of pain and pleasure. Some persons who have experienced a very painful surgical operation, can never afterwards bear the sight of the operator, however strong the gratitude which they may actually feel towards him. The meaning is, that the sight of the operator, by a strong association, calls up so vividly the idea of the pain of the



operation, that it is itself a pain. The spot on which a tender maiden parted with her lover, when he embarked on the voyage from which he never returned, cannot afterwards be seen by her without an agony of grief.

These cases, also, furnish an apt illustration of the superiority which the sensation possesses over the idea, as an associating cause. Though the sight of the surgeon, the sight of the place, would awaken the ideas which we have described, the mere thought of them might be attended with no peculiar effect. Those persons who have the association of frightful objects with darkness, and who are transported with terrors when placed in the dark, can still think of darkness without any emotion.

The same cases furnish an illustration of the effect of recency on the strength of association. The sight, of the affecting spot by the maiden, of the surgeon by the patient, would certainly produce a more intense emotion, after a short, than after a long interval. With most persons, time would weaken, and at last dissolve, the association.

So much with regard to vividness, as a cause of strong associations. Next, we have to consider frequency or repetition; which is the most remarkable and important cause of the strength of our associations.

Of any two sensations, frequently perceived together, the ideas are associated. Thus, at least,

in the minds of Englishmen, the idea of a soldier, and the idea of a red coat are associated ; the idea of a clergyman, and the idea of a black coat ; the idea of a quaker, and of a broad-brimmed hat ; the idea of a woman and the idea of petticoats. A peculiar taste suggests the idea of an apple ; a peculiar smell the idea of a rose. If I have heard a particular air frequently sung by a particular person, the hearing of the air suggests the idea of the person.

The most remarkable exemplification of the effect of degrees of frequency, in producing degrees of strength in the associations, is to be found in the cases in which the association is purposely and studiously contracted ; the cases in which we learn something ; the use of words, for example.

Every child learns the language which is spoken by those around him. He also learns it by degrees. He learns first the names of the most familiar objects ; and among familiar objects, the names of those which he most frequently has occasion to name ; himself, his nurse, his food, his playthings.

A sound heard once in conjunction with another sensation ; the word *mamma*, for example, with the sight of a woman, would produce no greater effect on the child, than the conjunction of any other sensation, which once exists and is gone for ever. But if the word *mamma* is frequently pro-

nounced, in conjunction with the sight of a particular woman, the sound will by degrees become associated with the sight; and as the pronouncing of the name will call up the idea of the woman, so the sight of the woman will call up the idea of the name.

The process becomes very perceptible to us, when, at years of reflection, we proceed to learn a dead or foreign language. At the first lesson, we are told, or we see in the dictionary, the meaning of perhaps twenty words. But it is not joining the word and its meaning once, that will make the word suggest its meaning to us another time. We repeat the two in conjunction, till we think the meaning so well associated with the word, that whenever the word occurs to us, the meaning will occur along with it. We are often deceived in this anticipation; and finding that the meaning is not suggested by the word, we have to renew the process of repetition, and this, perhaps, again, and again. By force of repetition the meaning is associated, at last, with every word of the language, and so perfectly, that the one never occurs to us without the other.

Learning to play on a musical instrument is another remarkable illustration of the effect of repetition in strengthening associations, in rendering those sequences, which, at first, are slow, and difficult, afterwards, rapid, and easy. At first, the learner, after thinking of each successive note, as

it stands in his book, has each time to look out with care for the key or the string which he is to touch, and the finger he is to touch it with, and is every moment committing mistakes. Repetition is well known to be the only means of overcoming these difficulties. As the repetition goes on, the sight of the note, or even the idea of the note, becomes associated with the place of the key or the string; and that of the key or the string with the proper finger. The association for a time is imperfect, but at last becomes so strong, that it is performed with the greatest rapidity, without an effort, and almost without consciousness.

In few cases is the strength of association, derived from repetition, more worthy of attention, than in performing arithmetic. All men, whose practice is not great, find the addition of a long column of numbers, tedious, and the accuracy of the operation, by no means certain. Till a man has had considerable practice, there are few acts of the mind more toilsome. The reason is, that the names of the numbers, which correspond to the different steps, do not readily occur; that is, are not strongly associated with the names which precede them. Thus, 7 added to 5, make 12; but the antecedent, 7 added to 5, is not strongly associated with the consequent 12, in the mind of the learner, and he has to wait and search till the name occurs. Thus, again, 12 and 7 make 19;



19 and 8 make 27, and so on to any amount ; but if the practice of the performer has been small, the association in each instance is imperfect, and the process irksome and slow. Practice, however ; that is, frequency of repetition ; makes the association between each of these antecedents and its proper consequent so perfect, that no sooner is the one conceived than the other is conceived, and an expert arithmetician can tell the amount of a long column of figures, with a rapidity, which seems almost miraculous to the man whose faculty of numeration is of the ordinary standard.

8. Where two or more ideas have been often repeated together, and the association has become very strong, they sometimes spring up in such close combination as not to be distinguishable. Some cases of sensation are analogous. For example ; when a wheel, on the seven parts of which the seven prismatic colours are respectively painted, is made to revolve rapidly, it appears not of seven colours, but of one uniform colour, white. By the rapidity of the succession, the several sensations cease to be distinguishable ; they run, as it were, together, and a new sensation, compounded of all the seven, but apparently a simple one, is the result. Ideas, also, which have been so often conjoined, that whenever one exists in the mind, the others immediately exist along with it, seem to run into one another, to coalesce, as it were, and out of many to form one idea ; which idea, however



in reality complex, appears to be no less simple, than any one of those of which it is compounded.

The word gold, for example, or the word iron, appears to express as simple an idea, as the word colour, or the word sound. Yet it is immediately seen, that the idea of each of those metals is made up of the separate ideas of several sensations; colour, hardness, extension, weight. Those ideas, however, present themselves in such intimate union, that they are constantly spoken of as one, not many. We say, our idea of iron, our idea of gold; and it is only with an effort that reflecting men perform the decomposition.

The idea expressed by the term weight, appears so perfectly simple, that he is a good metaphysician, who can trace its composition. Yet it involves, of course, the idea of resistance, which we have shewn above to be compounded, and to involve the feeling attendant upon the contraction of muscles; and the feeling, or feelings, denominated Will; it involves the idea, not of resistance simply, but of resistance in a particular direction; the idea of direction, therefore, is included in it, and in that are involved the ideas of extension, and of place and motion, some of the most complicated phenomena of the human mind.

The ideas of hardness and extension have been so uniformly regarded as simple, that the greatest metaphysicians have set them down as the copies of simple sensations of touch. Hartley

and Darwin, were, I believe, the first who thought of assigning to them a different origin.

We call a thing hard, because it resists compression, or separation of parts ; that is, because to compress it, or separate it into parts, what we call muscular force is required. The idea, then, of muscular action, and of all the feelings which go to it, are involved in the idea of hardness.

The idea of extension is derived from the muscular feelings in what we call the motion of parts of our own bodies ; as for example, the hands. I move my hand along a line ; I have certain sensations ; on account of these sensations, I call the line long, or extended. The idea of lines in the direction of length, breadth, and thickness, constitutes the general idea of extension. In the idea of extension, there are included three of the most complex of our ideas ; motion ; time, which is included in motion ; and space, which is included in direction. We are not yet prepared to explain the simple ideas which compose the very complex ideas, of motion, space, and time ; it is enough at present to have shewn, that in the idea of extension, which appears so very simple, a great number of ideas are nevertheless included ; and that this is a case of that combination of ideas in the higher degrees of association, in which the simple ideas are so intimately blended, as to have the appearance, not of a complex, but of a simple idea.

It is to this great law of association, that we

trace the formation of our ideas of what we call external objects; that is, the ideas of a certain number of sensations, received together so frequently that they coalesce as it were, and are spoken of under the idea of unity. Hence, what we call the idea of a tree, the idea of a stone, the idea of a horse, the idea of a man.

In using the names, tree, horse, man, the names of what I call objects, I am referring, and can be referring, only to my own sensations; in fact, therefore, only naming a certain number of sensations, regarded as in a particular state of combination; that is, concomitance. Particular sensations of sight, of touch, of the muscles, are the sensations, to the ideas of which, colour, extension, roughness, hardness, smoothness, taste, smell, so coalescing as to appear one idea, I give the name, idea of a tree.

To this case of high association, this blending together of many ideas, in so close a combination that they appear not many ideas, but one idea, we owe, as I shall afterwards more fully explain, the power of classification, and all the advantages of language. It is obviously, therefore, of the greatest moment, that this important phenomenon should be well understood.

9. Some ideas are by frequency and strength of association so closely combined, that they cannot be separated. If one exists, the other

exists along with it, in spite of whatever effort we make to disjoin them.

For example ; it is not in our power to think of colour, without thinking of extension ; or of solidity, without figure. We have seen colour constantly in combination with extension, spread as it were, upon a surface. We have never seen it except in this connection. Colour and extension have been invariably conjoined. The idea of colour, therefore, uniformly comes into the mind, bringing that of extension along with it ; and so close is the association, that it is not in our power to dissolve it. We cannot, if we will, think of colour, but in combination with extension. The one idea calls up the other, and retains it, so long, as the other is retained.

This great law of our nature is illustrated in a manner equally striking, by the connection between the ideas of solidity and figure. We never have the sensations from which the idea of solidity is derived, but in conjunction with the sensations whence the idea of figure is derived. If we handle any thing solid, it is always either round, square, or of some other form. The ideas correspond with the sensations. If the idea of solidity rises, that of figure rises along with it. The idea of figure which rises, is, of course, more obscure than that of extension ; because, figures being innumerable, the general idea is exceedingly complex, and hence,

of necessity, obscure. But, such as it is, the idea of figure is always present when that of solidity is present; nor can we, by any effort, think of the one without thinking of the other at the same time.

Of all the cases of this important law of association, there is none more extraordinary than what some philosophers have called, the acquired perceptions of sight.

When I lift my eyes from the paper on which I am writing, I see the chairs, and tables, and walls of my room, each of its proper shape, and at its proper distance. I see, from my window, trees, and meadows, and horses, and oxen, and distant hills. I see each of its proper size, of its proper form, and at its proper distance; and these particulars appear as immediate informations of the eye, as the colours which I see by means of it.

Yet, philosophy has ascertained, that we derive nothing from the eye whatever, but sensations of colour; that the idea of extension, in which size, and form, and distance are included, is derived from sensations, not in the eye, but in the muscular part of our frame. How, then, is it, that we receive accurate information, by the eye, of size, and shape, and distance? By association merely.

The colours upon a body are different, according to its figure, its distance, and its size. But the sensations of colour, and what we may here,



for brevity, call the sensations of extension, of figure, of distance, have been so often united, felt in conjunction, that the sensation of the colour is never experienced without raising the ideas of the extension, the figure, the distance, in such intimate union with it, that they not only cannot be separated, but are actually supposed to be seen. The sight, as it is called, of figure, or distance, appearing, as it does, a simple sensation, is in reality a complex state of consciousness; a sequence, in which the antecedent, a sensation of colour, and the consequent, a number of ideas, are so closely combined by association, that they appear not one idea, but one sensation.

Some persons, by the folly of those about them, in early life, have formed associations between the sound of thunder, and danger to their lives. They are accordingly in a state of agitation during a thunder storm. The sound of the thunder calls up the idea of danger, and no effort they can make, no reasoning they can use with themselves, to show how small the chance that they will be harmed, empowers them to dissolve the spell, to break the association, and deliver themselves from the tormenting idea, while the sensation or the expectation of it remains.

Another very familiar illustration may be adduced. Some persons have what is called an antipathy to a spider, a toad, or a rat. These feelings generally originate in some early fright. The

idea of danger has been on some occasion so intensely excited along with the touch or sight of the animal, and hence the association so strongly formed, that it cannot be dissolved. The sensation, in spite of them, excites the idea, and produces the uneasiness which the idea imports.

The following of one idea after another idea, or after a sensation, so certainly that we cannot prevent the combination, nor avoid having the *consequent* feeling as often as we have the *antecedent*, is a law of association, the operation of which we shall afterwards find to be extensive, and bearing a principal part in some of the most important phenomena of the human mind.

As there are some ideas so intimately blended by association, that it is not in our power to separate them; there seem to be others, which it is not in our power to combine. Dr. Brown, in exposing some errors of his predecessors, with respect to the acquired perceptions of sight, observes: "I cannot blend my notions of the two surfaces, a plane, and a convex, as one surface, both plane and convex, more than I can think of a whole which is less than a fraction of itself, or a square of which the sides are not equal." The case, here, appears to be, that a strong association excludes whatever is opposite to it. I cannot associate the two ideas of assafoetida, and the taste of sugar. Why? Because the idea of assafoetida

is so strongly associated with the idea of another taste, that the idea of that other taste rises in combination with the idea of assafoetida, and of course the idea of sugar does not rise. I have one idea associated with the word pain. Why can I not associate pleasure with the word pain? Because another indissoluble association springs up, and excludes it. This is, therefore, only a case of indissoluble association; but one of much importance, as we shall find when we come to the exposition of some of the more complicated of our mental phenomena.

10. It not unfrequently happens in our associated feelings, that the antecedent is of no importance farther than as it introduces the consequent. In these cases, the consequent absorbs all the attention, and the antecedent is instantly forgotten. Of this a very intelligible illustration is afforded by what happens in ordinary discourse. A friend arrives from a distant country, and brings me the first intelligence of the last illness, the last words, the last acts, and death of my son. The sound of the voice, the articulation of every word, makes its sensation in my ear; but it is to the ideas that my attention flies. It is my son that is before me, suffering, acting, speaking, dying. The words which have introduced the ideas, and kindled the affections, have been as little heeded, as the respiration which has been accelerated, while the ideas were received.

It is important in respect to this case of association to remark, that there are large classes of our sensations, such as many of those in the alimentary duct, and many in the nervous and vascular systems, which serve, as antecedents, to introduce ideas, as consequents ; but as the consequents are far more interesting than themselves, and immediately absorb the attention, the antecedents are habitually overlooked ; and though they exercise, by the trains which they introduce, a great influence on our happiness or misery, they themselves are generally wholly unknown.

That there are connections between our ideas and certain states of the internal organs, is proved by many familiar instances. Thus, anxiety, in most people, disorders the digestion. It is no wonder, then, that the internal feelings which accompany indigestion, should excite the ideas which prevail in a state of anxiety. Fear, in most people, accelerates, in a remarkable manner, the vermicular motion of the intestines. There is an association, therefore, between certain states of the intestines, and terrible ideas ; and this is sufficiently confirmed by the horrible dreams to which men are subject from indigestion ; and the hypochondria, more or less afflicting, which almost always accompanies certain morbid states of the digestive organs. The grateful food which excites pleasurable sensations in the mouth, continues them in the stomach ; and, as pleasures excite



ideas of their causes, and these of similar causes, and causes excite ideas of their effects, and so on, trains of pleasurable ideas take their origin from pleasurable sensations in the stomach. Uneasy sensations in the stomach, produce analogous effects. Disagreeable sensations are associated with disagreeable circumstances; a train is introduced, in which, one painful idea following another, combinations, to the last degree afflictive, are sometimes introduced, and the sufferer is altogether overwhelmed by dismal associations.

In illustration of the fact, that sensations and ideas, which are essential to some of the most important operations of our minds, serve only as antecedents to more important consequents, and are themselves so habitually overlooked, that their existence is unknown, we may recur to the remarkable case which we have just explained, of the ideas introduced by the sensations of sight. The minute gradations of colour, which accompany varieties of extension, figure, and distance, are insignificant. The figure, the size, the distance, themselves, on the other hand, are matters of the greatest importance. The first having introduced the last, their work is done. The consequents remain the sole objects of attention, the antecedents are forgotten; in the present instance, not completely; in other instances, so completely, that they cannot be recognized.



11. Mr. Hume, and after him other philosophers, have said that our ideas are associated according to three principles; Contiguity in time and place, Causation, and Resemblance. The Contiguity in time and place, must mean, that of the sensations; and so far it is affirmed, that the order of the ideas follows that of the sensations. Contiguity of two sensations in time, means the successive order. Contiguity of two sensations in place, means the synchronous order. We have explained the mode in which ideas are associated, in the synchronous, as well as the successive order, and have traced the principle of contiguity to its proper source.

Causation, the second of Mr. Hume's principles, is the same with contiguity in time, or the order of succession. Causation is only a name for the order established between an antecedent and a consequent; that is, the established or constant antecedence of the one, and consequence of the other. Resemblance only remains, as an alleged principle of association, and it is necessary to inquire whether it is included in the laws which have been above expounded. I believe it will be found that we are accustomed to see like things together. When we see a tree, we generally see more trees than one; when we see an ox, we generally see more oxen than one; a sheep, more sheep than one; a man, more men than one. From this observation, I think, we may refer resemblance to the

law of frequency, of which it seems to form only a particular case.

Mr. Hume makes contrast a principle of association, but not a separate one, as he thinks it is compounded of Resemblance and Causation. It is not necessary for us to show that this is an unsatisfactory account of contrast. It is only necessary to observe, that, as a case of association, it is not distinct from those which we have above explained.

A dwarf suggests the idea of a giant. How? We call a dwarf a dwarf, because he departs from a certain standard. We call a giant a giant, because he departs from the same standard. This is a case, therefore, of resemblance, that is, of frequency.

Pain is said to make us think of pleasure; and this is considered a case of association by contrast. There is no doubt that pain makes us think of relief from it; because they have been conjoined, and the great vividness of the sensations makes the association strong. Relief from pain is a species of pleasure; and one pleasure leads to think of another, from the resemblance. This is a compound case, therefore, of vividness and frequency. All other cases of contrast, I believe, may be expounded in a similar manner.

I have not thought it necessary to be tedious in expounding the observations which I have thus stated; for whether the reader supposes that

resemblance is, or is not, an original principle of association, will not affect our future investigations.

12. Not only do simple ideas, by strong association, run together, and form complex ideas : but a complex idea, when the simple ideas which compose it have become so consolidated that it always appears as one, is capable of entering into combinations with other ideas, both simple and complex. Thus two complex ideas may be united together, by a strong association, and coalesce into one, in the same manner as two or more simple ideas coalesce into one. This union of two complex ideas into one, Dr. Hartley has called a duplex idea. Two also of these duplex, or doubly compounded ideas, may unite into one ; and these again into other compounds, without end. It is hardly necessary to mention, that as two complex ideas unite to form a duplex one, not two only, but more than two may so unite ; and what he calls a duplex idea may be compounded of two, three, four, or any number of complex ideas.

Some of the most familiar objects with which we are acquainted furnish instances of these unions of complex and duplex ideas.

Brick is one complex idea, mortar is another complex idea ; these ideas, with ideas of position and quantity, compose my idea of a wall. My idea of a plank is a complex idea, my idea of a

rafter is a complex idea, my idea of a nail is a complex idea. These, united with the same ideas of position and quantity, compose my duplex idea of a floor. In the same manner my complex idea of glass, and wood, and others, compose my duplex idea of a window ; and these duplex ideas, united together, compose my idea of a house, which is made up of various duplex ideas. How many complex, or duplex ideas, are all united in the idea of furniture ? How many more in the idea of merchandize ? How many more in the idea called Every Thing ?

## CHAPTER IV.

## NAMING.

“ I endeavour, as much as I can, to deliver myself from those fallacies which we are apt to put upon ourselves, by taking words for things. It helps not our ignorance to feign a knowledge where we have none, by making a noise with sounds without clear and distinct significations. Names made at pleasure, neither alter the nature of things, nor make us understand them, but as they are signs of, and stand for, determined ideas.” *Locke, Hum. Und. b. ii. ch. 13, § 18.*

WE have now surveyed the more simple and obvious phenomena of the human mind. We have seen, first, that we have SENSATIONS; secondly, that we have IDEAS, the copies of those sensations; thirdly, that those ideas are sometimes SIMPLE, the copies of one sensation; sometimes COMPLEX, the copies of several sensations so combined as to appear not several ideas, but one idea; and, fourthly, that we have TRAINS of those ideas, or one succeeding another without end.

These are simple facts of our nature, attested by experience; and my chief object in fixing upon



them the attention of the reader has been, to convey to him that accurate and steady conception of them, which is requisite for the successful prosecution of the subsequent inquiries.

After delineating the simple and elementary states of consciousness, it follows, in order, that we should endeavour to show what is contained in those that are complex. But in all the more complicated cases of human consciousness something of the process of Naming is involved. These cases, of course, cannot be unfolded, till the artifice of Naming is made known. This, therefore, is necessarily an intermediate inquiry; and one to which it is necessary that we should devote a particular degree of attention.

There are two purposes, both of great importance, for which marks of our ideas, and sensations; or signs by which they may be denoted; are necessary. One of these purposes is, That we may be able to make known to others what passes within us. The other is, That we may secure to ourselves the knowledge of what at any preceding time has passed in our minds.

The sensations and ideas of one man are hidden from all other men; unless they have recourse to some expedient for disclosing them. We cannot convey to another man our sensations and ideas directly. Our means of intercourse with other men are through their senses exclusively. We must therefore chuse some SENSIBLE OBJECTS,

as SIGNS of our inward feelings. If two men agree, that each shall use a certain sensible sign, when one of them means to make known to the other that he has a certain sensation, or idea, they, in this, and in no other way, can communicate a knowledge of those feelings to one another.

Almost all the advantages, which man possesses above the inferior animals, arise from his power of acting in combination with his fellows; and of accomplishing, by the united efforts of numbers, what could not be accomplished by the detached efforts of individuals. Without the power of communicating to one another their sensations and ideas, this co-operation would be impossible. The importance, therefore, of the invention of signs, or marks, by which alone that communication can be effected, is obvious.

Among sensible objects, those alone which are addressed to the senses of seeing and hearing have sufficient precision and variety to be adapted to this end. The language of Action, as it has been called, that is, certain gesticulations and motions, has very generally, especially among rude people, whose spoken language is scanty, been found in use to indicate certain states, generally complicated states, of mind. But, for precision, variety, and rapidity, the flexibility of the voice presented such obvious advantages, not to mention that visible signs must be altogether useless in the dark, that sounds, among all the varieties

of our species, have been assumed as the principal medium by which their sensations and ideas were made known to one another.

There can be little doubt that, of the two uses of marks, Communicating our thoughts, and Recording them, the advantage of the first would be the earliest felt; and that signs for Communicating would be long invented, before any person would see the advantage of Recording his thoughts. After the use of signs for Communication had become familiar, it would not fail, in time, to appear that signs might be employed for Recordation also; and that, from this use of them, the highest advantages might be derived.

In respect to those advantages, the following particulars are to be observed.

1. We cannot recal any idea, or train of ideas, at will. Thoughts come into the mind unbidden. If they did not come unbidden, they must have been in the mind before they came into it; which is a contradiction. You cannot bid a thought come into the mind, without knowing that which you bid; but to know a thought is to have the thought: the knowledge of the thought, and the thought's being in the mind, are not two things but one and the same thing, under different names.

If we cannot recal at pleasure a single idea, we are not less unable to recal a train. Every person knows how evanescent his thoughts are, and how impossible it is for him to begin at the

beginning of a past train, if it is not a train of the individual objects familiar to his senses, and go on to the end, neither leaving out any of the items which composed it, nor allowing any which did not belong to it, to enter in.

2. It is most obvious that, by ideas alone, the events which are passed, are to us any thing. If the objects which we have seen, heard, smelt, tasted, and touched, left no traces of themselves; if the immediate sensation were every thing, and a blank ensued when the sensation ended, the past would be to us as if it had never been. Yesterday would be as unknown as the months we passed in the womb, or the myriads of years before we were born.

3. It is only by our ideas of the past, that we have any power of anticipating the future. And if we had no power of anticipating the future, we should have no principle of action, but the physical impulses, which we have in common with the brutes. This great law of our nature, the anticipation of the future from the past, will be fully illustrated in a subsequent part of this inquiry: at present, all that is required is, the admission, which will probably not be refused, of this general truth: That the order, in which events *have been observéd* to take place, is the order in which they are *expected* to take place; that the order in which they have taken place is testified to us only by our ideas; and that upon the cor-



rectness, with which they are so testified, depends the faculty we possess of converting the powers of nature into the instruments of our will; and of bringing to pass the events which we desire.

4. But all this power depends upon the order of our ideas. The importance, therefore, is unspeakable, of being able to insure the order of our ideas; to make, in other words, the order of a train of ideas correspond unerringly with a train of past sensations. We have not, however, a direct command over the train of our ideas. A train of ideas may have passed in our minds corresponding to events of great importance; but that train will not pass again, unvaried, except in very simple cases, without the use of *expedients*.

5. The difference between the *occasions* of our IDEAS, and the *occasions* of our SENSATIONS, affords a resource for this purpose. Over the occasions of our sensations we have an extensive power. We can command the smell of a rose, the hearing of a bell, the sight of a tree, the sensations of heat or of cold, and so on. Over the occasions of our ideas we have little or no direct power. Our ideas come and go. There is a perpetual train of them, one succeeding another; but we cannot will any link in that chain of ideas; each link is determined by the foregoing; and every man knows, how impossible it is, by mere willing, to make such a train as he desires. Thoughts obtrude themselves without his bidding;



and thoughts which he is in quest of will not arise.

By the power, however, which we have over the occasions of our sensations, we can make sure of having a train of sensations exactly the same as we have had before. This affords us the means of having a train of ideas exactly the same as we have had before. If we chuse a number of sensible objects, and make use of them as marks of our ideas, we can ensure any succession which we please of the sensible objects; and, by the association between them and the ideas, a corresponding succession of the ideas.

6. To one of the two sets of occasions, upon which Signs are thus useful, *evanescent* Signs are the best adapted; *permanent* signs are absolutely necessary for the other. For the purposes of speech, or immediate communication, sounds are the most convenient marks. Sounds, however, perish in the making. But for the purpose of retracing a train of ideas, which we have formerly had, it is necessary we should have marks which do not perish. Marks, addressed to the sight, or the touch, have the requisite permanence; and, of the two, those addressed to the eye have the advantage. Of marks addressed to the eye, two kinds have been adopted; either marks immediately of the ideas intended to be recalled; such as the picture-writing, or hieroglyphics, of some nations: or, visible marks, by letters, of the audi-

ble marks employed in oral communication. This latter kind has been found the most convenient, and in use among the largest, and most intelligent portion of our species.

According to this scheme, spoken language is the use of immediate marks of the ideas; written language, is the use of secondary marks of the ideas. The written marks are only signs of the audible marks; the audible marks, are signs of the ideas.

## SECTION I.

## NOUNS SUBSTANTIVE.

The power of Language essentially consists, in two things ; first, in our having marks of our SENSATIONS, and IDEAS : and, secondly, in so arranging them, that they may correctly denote a TRAIN of those mental states or feelings. It is evident, that if we convey to others the ideas which pass in our own minds, and also convey them in the order in which they pass, the business of COMMUNICATION is completed. And, if we establish the means of reviving the ideas which we have formerly had, and also of reviving them in the order in which we formerly had them, the business of RECORDATION is completed. We now proceed to show, by what contrivances, the expedient of Marking is rendered efficient to those several ends.

The primary importance to men, of being able to make known to one another their SENSATIONS, made them in all probability begin with inventing marks for that purpose ; in other words, making Names for their SENSATIONS. Two modes presented themselves. One was to give a name to each single sensation. Another was to bestow a name on a cluster of sensations, whenever they were such as occur in a cluster. Of this latter class,

are all names of what are called External Objects ; rose, water, stone, and so on. Each of these names is the mark of as many sensations (sight, touch, smell, taste, sound) as we are said to derive from those objects. The name rose, is the mark of a sensation of colour, a sensation of shape, a sensation of touch, a sensation of smell, all in conjunction. The name water, is the mark of a sensation of colour, a sensation of touch, a sensation of taste, and other sensations, regarded not separately, but as a compound.

There is a convenience in giving a single mark to any number of sensations, which we thus have in clusters ; because there is hence a great saving of marks. The sensations of sight, of touch, of smell, and so on, derived from a rose, might have received marks, and have been enumerated, one by one ; but the term rose, performs all this much more expeditiously, and also more certainly.

The occasions, however, are perpetual, on which we need marks for sensations, not in clusters, but taken separately. And language is supplied with names of this description. We have the terms, red, green, hot, cold, sweet, bitter, hard, soft, noise, stench, composing in the whole a numerous class. For many sensations, however, we have not names in one word ; but make a name out of two or more words : thus, for the sensation of hearing, derived from a trumpet, we

have only the name, "sound of a trumpet;" in the same manner, we have "smell of a rose," "taste of an apple," "sight of a tree," "feeling of velvet."

Of those names which denote clusters of sensations, it is obvious (but still very necessary) to remark, that some include a greater, some a less number of sensations. Thus, stone includes only sensations of touch, and sight. Apple, beside sensations of touch and sight, includes sensations of smell and taste.

We not only give names to clusters of sensations, but to clusters of clusters; that is, to a number of minor clusters, united into a greater cluster. Thus we give the name wood to a particular cluster of sensations, the name canvas to another, the name rope to another. To these clusters, and many others, joined together in one great cluster, we give the name ship. To a number of these great clusters united into one, we give the name fleet, and so on. How great a number of clusters are united in the term House? And how many more in the term City?

Sensations being infinitely numerous, all cannot receive marks or signs. A selection must be made. Only those which are the most important are named.

Names, to be useful, cannot exceed a certain number. They could not otherwise be remembered. It is, therefore, of the greatest importance that each name should accomplish as much as



possible. To this end, the greater number of names stand, not for individuals only, but classes. Thus the terms red, sweet, hot, loud, are names, not of one sensation only, but of classes of sensations ; that is, every sensation of a particular kind. Thus also the term, rose, is not the name of one single cluster, but of every cluster coming under a certain description. As rose denotes one class, stone denotes another, iron another, ox another, and so on.

As we need marks for SENSATIONS, we need marks also for IDEAS.

The Ideas which we have occasion to name, are, first, Simple Ideas, the copies of simple sensation ; secondly, Complex Ideas, the copies of several sensations, combined. Of those complex ideas, also, there is one species, those copied directly from sensations, in the formation of which the mind has exercised but little controul ; as the ideas of rose, horse, stone, and of what are called the objects of sense in general. There is another species of complex ideas which, though derived also from the senses, are put together in a great degree at our discretion, as the ideas of a centaur, a mountain of gold, of comfort, of meanness ; all that class of ideas in short which Mr. Locke has called mixed modes.

We may thus distinguish three classes of ideas, which we have occasion to name : 1, simple ideas, the copies of single sensations : 2, complex

ideas, copied directly from sensations : 3, complex ideas, derived indeed from the senses, but put together in arbitrary combinations. The two former classes may be called Sensible, the last Mental Ideas.

With respect to ideas, of the first two classes, those which are the direct copies of our sensations, either singly, or in groups ; it is of great importance to observe, and also to remember, that, for the most part, the words, which are employed as marks of the Sensations, are made to serve the further purpose of being marks also of the Ideas. The same word is at once the name of the sensations, and the ideas.

If any person were asked, whether the word BEING is the name of a Sensation, or of an Idea ; he would immediately reply, that it is the name of an Idea. In like manner, if he were asked, whether the word ANIMAL is the mark of a cluster of Sensations, or of a cluster of Ideas ; he would with equal readiness say, of a cluster of Ideas. But if we were to ask, whether the name Sheep is the name of a cluster of Sensations, or of a cluster of Ideas ; he would probably say, that Sheep is the name of Sensations ; in the same manner as rose, or apple. Yet, what is the difference ? Only this, that ANIMAL is the more general name, and includes sheep along with other species ; and that BEING is still more general, and includes animal along with vegetable, mineral, and other *genera*.

If sheep, therefore, or stone, be a name of sensations, so is animal or being; and if animal, or being, be a name of ideas, so is sheep or stone a name of ideas. The fact is, they are all names of both. They are names of the Sensations, primarily; but are afterwards employed as names also of the Ideas or copies of those sensations.

It thus appears, that the names generally of what are called the objects of sense are equivocal; and whereas it would have been a security against confusion to have been provided with appropriate names, one, in each instance, for the Sensation, and one for the Idea, the same name has been made to serve as the mark for both. The term horse is not only made to stand for the sensations of sight, of hearing, of touch, and even of smell, which give me occasion for the use of the term horse; but it stands also for the ideas of those sensations, as often as I have occasion to speak of that cluster of ideas which compose my notion of a horse. The term tree denotes undoubtedly the Idea in my mind, when I mean to convey the idea tree into the mind of another man; but it also stands for the sensations whence I have derived my idea of a tree.

Thus, too, if I mean to name my simple ideas; those, for example, of sight; I have no other names than red, blue, violet, &c.; but all these are names of the sensations. When forced to distinguish them, I must use the awkward expressions, my

sensation of red, my idea of red. Again ; sound of a trumpet, is the name, as well of the sensation, as the idea ; flight of a bird, the name, as well of the sensation, as the idea ; light the name as well of the sensation as the idea ; pain the name as well of the sensation as the idea ; heat the name as well of the sensation as the idea.

As we have remarked, in regard to SENSATIONS, singly, or in clusters, that they are too numerous to receive names but in classes, that is names common to every individual of a class, the same is obviously true of the IDEAS. The greater number of names of Sensible Ideas are names of classes : man is the name of a class ; lion, horse, eagle, serpent, and so on, are names of classes.

Ideas, of the third class, those which the mind forms arbitrarily, are innumerable ; because the combinations capable of being formed of the numerous elements which compose them, exceed computation. All these combinations cannot receive names. The memory can manage but a moderate number. Of possible combinations, therefore, a small proportion must be selected for naming. These, of course, are the combinations which are suggested by the occasions of life, and conduce to the ends which we pursue.

We arrange those ideas, also, in classes ; to the end that every name may serve the purpose of marking, as extensively as possible. Thus the term fear is applicable to a state of mind, of which



the instances form a class. In like manner, courage is the name of a class; temperance, ignorance, piety, and so on, names of classes. Republic, aristocracy, monarchy, are names, each of them, not of an individual government, a government at one time and place, but of a class, a sort of governments, at any time and place.

The names of the ideas which are thus mentally clustered, are exempt from that ambiguity which we saw belonged to the names of both classes of sensible ideas. The names of sensible ideas generally stand for the sensations as well as the ideas. The names of the mental ideas are not transferable to sensations. But they are subject to another uncertainty, still more fertile in confusion, and embarrassment.

As the combinations are formed arbitrarily, or in other words, as the ideas of which they are composed, are more or less numerous, according to pleasure, and each man of necessity forms his own combination, it very often happens, that one man includes something more or something less than another man in the combination to which they both give the same name. Using the same words, they have not exactly the same ideas. In the term piety, for example, a good catholic includes many things which are not included in it by a good protestant. In the term good manners, an Englishman of the present day does not include the same ideas which were in-



cluded in it by an Englishman two centuries ago ; still less those which are included in it by foreigners of habits and usages dissimilar to our own. Prudence, in the mind of a man of rank and fortune, has a very different meaning from what it bears in the minds of the frugal and industrious poor. Under this uncertainty in language, it not only happens that men are often using the same expressions when they have different ideas ; but different, when they have the same ideas.

## SECTION II.

## NOUNS ADJECTIVE.

As the purpose of language is to denote sensations and ideas ; to mark them for our own use, or to give indication of them to our fellow men ; it is obvious that the names of sensations and ideas are the fundamental parts of language. But as ideas are very numerous, and the limits of the human memory admit the use of only a limited number of marks or names, various contrivances are employed to make one name serve as many purposes as possible.

Of the contrivances for making the use of each word as extensive as possible, we have already adverted to one of great importance ; that of arranging ideas in classes, and making one name stand for each individual of the class. When the classes are large, one word or mark serves to name or indicate many individuals.

But when, for the sake of economizing names, those classes have been made as large as possible, we often find occasion for breaking them down into smaller parcels, or sub-classes, and speaking of these sub-classes by themselves.

An example will render what is here expressed sufficiently plain. The term sound, is the name

of a large class of ideas or sensations ; for it is equally the name of both ; the sound of thunder, the sound of a cannon, the whistling of the wind, the voice of a man, the howling of a dog, and so on.

Among these sounds I perceive differences ; some affect me in one way, and I wish to mark them as doing so ; some affect me in another way, and I wish to mark them as affecting me in that particular way.

It is obvious that names might be invented for these subordinate classes, to mark such of them as we have occasion to mark ; and the cases are numerous, in which this is the expedient adopted. Thus the term animal is the name of a large class. But we have occasion to speak apart of various portions of this class, to all the more important of which portions, we have given particular names. Horse is the name of one portion, man of another, sheep of another, and so of the rest.

There is, however, another mode of naming subordinate classes ; a mode by which the use of names is greatly economized, and of which the utility is therefore conspicuous.

The subordinate class is distinguished from the rest of the greater class by some peculiarity, something in which the individuals of it agree with one another, and do not agree with the rest. Thus to recur to the example of sound. One set

of sounds affect me in a certain way, a way peculiar to that set. Wishing to distinguish these sounds from others by a mark, I call them *loud*. Another set of sounds affect me in another way, and I call them *low*; a third set in another way, and I call them *harsh*; a fourth in another way, and I call them *sweet*. By means of those adjectives applied as marks upon the mark of the great class, I have the names of four species, or sub-classes; 1, loud sounds; 2, low sounds; 3, harsh sounds; 4, sweet sounds; and the number might be greatly enlarged.

It thus appears that, as nouns substantive are marks of ideas, or sensations, nouns adjective are marks put upon nouns substantive, or marks upon marks; in order to limit the signification of the noun substantive; and instead of its marking a large class, to make it mark a subdivision of that class. Thus the word, *rose*, is the mark of a large class: apply to it the adjective *yellow*, that is, put the mark *yellow* upon the mark *rose*, and you have the name, *yellow rose*, which is a subdivision, or species, of the class *Rose*.

This peculiarity of naming, this putting of marks upon marks, in order to modify the meaning of a certain mark, is a contrivance which deserves the greatest attention. It is one of the principal expedients for the great purpose of economizing names, and performing the business of marking with the smallest number of marks; but,

like the rest of the contrivances for this purpose, it contributes to obscure the simple process of naming; and when not distinctly known and attended to, operates as a source of confusion and error.

The use of adjectives, in economizing names, is most conspicuous, in the case of those subdivisions which apply to the greatest number of classes. There is one distinction which applies to most classes; the distinction between what pleases, and what does not please us, no matter on what account. The first we call good, the second evil. These two terms serve to mark a very great number of subordinate classes, and, of course, save, to a great extent, the multiplication of names.

Thus, in the case of the senses, we have the word taste, the mark of one great class of sensations. Tastes we divide into sub-classes by the words good and evil; good tastes being one class, bad tastes another. If we had invented separate marks for each of these two classes, we should have had three names, to mark the class taste with these its two primary subdivisions; and we should have had occasion for the same number of names in the case of each of the five senses; or, fifteen different names. But the adjectives, good, and evil, they being applicable to all the senses, save us the invention of names for the sub-classes of the other four senses; as we say good smells, bad smells, in the same manner as good tastes, and



bad tastes. They save, therefore, eight names out of fifteen, or more than one-half.

The economizing power of adjectives is still more remarkable, when we depart from simple sensations and ideas, and apply them as marks upon the names of the complex, which are far more numerous. Thus, the term horse is the mark of a complex idea, and the name of a class of objects. We say good horse and bad horse, good dog and bad dog, good house and bad house, and so in cases without number; in each of which, the repetition of the two adjectives, good, and bad, saves us the use and embarrassment of separate names.

It deserves to be remarked, that the terms good and evil apply much more generally to that class of complex ideas, in the formation of which the mind has but little control; namely, those of external objects; than they do to the other class of complex ideas which the mind makes up in an arbitrary manner to suit its own convenience. Ideas of the latter description are very often made up according to the distinction of good and evil. Thus, the idea glory, is composed of ingredients all of which belong to the classes, good; and the idea good, is multifariously included in the name. After the same manner, the idea of evil is multifariously included in the complex idea disgrace. Good is implied in the term virtue, evil in the term vice; good is implied in the term wealth,

evil in the term poverty ; good is implied in the term power, evil in the term weakness. In some cases, the ideas of this class are so general, that good and evil are both included ; and, in such cases, adjectives are necessary to mark the subdivisions or species. Thus, we say good manners, bad manners ; good sense, bad sense ; good conduct, bad conduct ; and so on.

Next to the adjectives which form the numerous sub-classes of good and evil, those which mark degrees are of the most extensive application, and in the operation of sub-marking save the greatest number of names. Thus the terms, great, and little, are applicable to a great proportion of the marks of complex ideas of both formations. We say a great tree, a little tree ; a great man, a little man ; a great crime, a small crime ; great blame, little blame ; great honour, little honour ; great value, little value ; great weight, little weight ; great strength, little strength, and so on.

Different adjectives differ in the number of classes to the subdivision of which they are subservient. Thus hot and cold are only applicable where diversities of temperature are included ; round, square, and so on, where figure is included ; white or black, where colour ; and so on.

Beside the use of adjectives, in dividing great classes into smaller ones, without multiplication of names ; they sometimes answer another purpose. It often happens that, in the cluster of sen-

sations or ideas which have one name, we have occasion to call attention particularly to some one ingredient of the cluster. Adjectives render this service, as well as that of marking a class. This rose, I say, is red ; that rose is yellow : this stone is hot, that stone is cold. The term, red rose, or yellow rose, is the name of a class. But when I say, this rose is red, where an individual is named, I mark emphatically the specific difference; namely, red, or yellow ; which constitutes that subdivision of the genus rose, to which the individual belongs.

## SECTION III.

## VERBS.

I. There is one class of complex ideas, of so particular a nature, and of which we have so frequent occasion to speak, that the means of subdividing them require additional contrivances. Marks put upon marks are still the instrument. But the instrument, to render it more effectual to this particular purpose, is fashioned in a particular way. I allude to the class of words denominated Verbs; which are, in their essence, adjectives, and applied as marks upon marks; but receive a particular form, in order to render them, at the same time, subservient to other purposes.

The mode of their marking, and the peculiarity of their marking power may easily, I hope, be thus conceived.

A billiard-ball affects my senses, in a particular manner. On account of this, I call it round; and the term round is ever after a mark to me of a portion of the sensations which I derive from it. It affects me in another manner. I call it on that account white, and the term white is to me a mark of this other mode in which it affects me: and in the same manner as I call it white, round, on account of such and such sensations, I call it Moving, on account of certain other sensations, of

which the term Moving is to me a perpetual mark.

The manner of affecting me on account of which I call it moving, I learn from experience to be peculiarly entitled to my regard. I find that it is a mode of affecting me, which belongs to almost all bodies; and I find that upon this attribute of theirs the greatest part of my interesting sensations depend. I am therefore deeply concerned in the knowledge of motions; and have the strongest inducement to divide them into such classes as may in the highest degree facilitate that knowledge.

Motions are divided in a great variety of ways for a variety of purposes. Sometimes we divide them according to their subjects. Thus, the motion of a bird is one class of motions; the motion of a horse another; so the motion of a serpent, the motion of an arrow, the motion of a wheel. At other times we form classes of motions according to the manner. Thus we have running, flying, rolling, leaping, staggering, throwing, striking, and so on.

Of all the classifications of motions, however, that which deserves the greatest attention is the distinction of them into the motions which originate within the moving body, and those which originate without it. Of the motions which originate within the moving body, the principal are the living motions of animals. We find, also,



that of all the motions of animals, those of men are the most important to men. The motions of men are divided into a great number of classes. On account of one set of motions we call a man walking; on account of another sort we call him running; another, writing; another, dancing; another, fencing; another, boxing; another, building; and so on. We have also frequent occasion for a name which shall embrace all these motions of men. For this purpose the word Acting is employed: and the term Action denotes any of the motions, which originate within a man as the moving body. It is no objection to this account of the use of the word action, that it is sometimes employed in cases in which the motion is not the principal object of attention; as in the act of singing, or that of speaking. Here, though it is not the motion, but the effect of the motion, which is the object of attention to the hearer, the act of the singer or speaker is not the less truly a motion.

The word action, when thus invented, and used, is afterwards applied metaphorically to motions which do not originate in the moving body, as when we say the action of a sword; and also to certain processes of the mind, which, as they are accompanied with the feeling we call effort, resembling that which accompanies the voluntary motions, are sometimes classed along with them, and, by an extension of the meaning of the word,

receive the name of actions. In this manner, remembering, computing, comparing, even hearing, and seeing, are denominated actions.

2. In applying the term Acting, or the terms expressive of the several kinds of acting, the Time of the action is a material circumstance. The grand divisions of time are the Past, the Present, and the Future. There is great utility in a short method of marking these divisions of time in conjunction with the mark of the action. This is effected by the Tenses of verbs.

3. When the name of an act is applied to an agent, the agent is either the person speaking, the person spoken to, or some other person. The word denoting the action is, by what are called the Persons of the verb, made to connote these diversities. Thus *amo* notes the act, and connotes the person speaking as the actor; *amas* notes the act, and connotes the person spoken to, as the actor; *amat* notes the act, and connotes some person, as the actor, who is neither the person speaking, nor the person spoken to.

4. When the names of actions are applied to agents, they are applied to one or a greater number. A short method of connoting this grand distinction of numbers is effected by the marks of the Singular and Plural number. Thus *amo* notes the act, and connotes one actor; *amamus* notes the act, and connotes more than one actor.

5. In applying the names of actions to the

proper subjects of them, there are three Modes of the action, one or other of which is always implied. The first is, when the action has no reference to any thing previously spoken of. The second is, when it has a reference to something previously spoken of. The third is, when it has a reference to some state of the will of the speaker or person spoken of. These diversities of mode are connoted by the Moods of the verb. The Indicative is used when no reference is made to any thing which precedes: the Subjunctive, when a reference is made to something which precedes: and the Optative, and Imperative, when the reference is to the state of the will of the speaker or the person spoken of.

Such are the contrivances to make the marks or names of action, by their connotative powers, a more and more effectual instrument of notation. Accurately speaking, they are adjectives, so fashioned as to connote, a threefold distinction of agents, with a twofold distinction of their number, a threefold distinction of the manner of the action, and a threefold distinction of its time; and, along with all this, another important particular, about to be explained, namely, the COPULA in PREDICATION.

6. We have, last of all, under this head, to consider the marking power of a very peculiar,

and most comprehensive word, the SUBSTANTIVE VERB, as it has been called by grammarians, or the word expressive of BEING. The steps, which we have already traced, in the process of naming, will aid us in obtaining a true conception of this, which is one of the most important steps, in that process.

We have seen that, beside the names of particular species of motions, as walking, running, flying, there was occasion for a general name which might include the whole of those motions. For this purpose, the names Action and Acting were employed. It is now to be remembered, that those sensations which we mark by the names of action, as walking, running, &c., are but part of the sensations which we derive from objects; that we have other sensations, and clusters of sensations, from them, on account of which we apply to them other names; as when we call a man tall, on account of certain sensations; dark, on account of certain other sensations, and so on. Now, as we had occasion for a name to include the separate clusters, called walking, running, flying, rolling, falling, and so on, and for that purpose adopted the name Acting; so, having from objects other sensations than those marked by the word acting, we have occasion for a name which shall include both those sensations, and those comprehended in the word acting along with them: in short, a word that shall embrace



all sensations, of whatever kind, which any object is capable of exciting in us. This purpose is effected by the word affirmative of Existence. When we affirm of any thing that it EXISTS, that it IS; what we mean, is, that we may have sensations from it; nothing, without ourselves, being known to us, or capable of being known, but through the medium of our senses.

There is the same occasion for making the Substantive Verb connote the three distinctions of TIME PAST, TIME PRESENT, and TIME FUTURE, as in the case of other verbs; also to connote the distinctions of PERSONS and NUMBERS; and, lastly, to connote the THREE MODES, that in which there is no reference to any thing preceding, that in which there is a reference to something preceding, and that in which reference is made to the will of one of the PERSONS. Accordingly the Substantive Verb has TENSES, MOODS, NUMBERS, and PERSONS, like any other verb.

Such is the nature and object of the Substantive Verb. It is the most GENERIC of all the words, which we have characterized, as marks upon marks. These are the words usually called ATTRIBUTIVES. According to the view which we have given of them, they may be more appropriately denominated, SECONDARY MARKS. The names of the larger classes, as tree, horse, strength, we may call PRIMARY MARKS. The subsidiary names by which smaller classes are



marked out of the larger; as when we say, tall tree, great strength, running horse, walking man; that is, all attributives, or marks applied upon marks; we may call SECONDARY MARKS.

## SECTION IV.

## PREDICATION.

The purposes of language are two. We have occasion to mark sensations or ideas singly; and we have occasion to mark them in trains; in other words, we have need of contrivances to mark not only sensations and ideas; but also the order of them. The contrivances which are necessary to mark this order are the main cause of the complexity of language.

If all names were names of one sort, there would be no difficulty in marking a train of the feelings which they serve to denote. Thus, if all names were names of individuals, as John, James, Peter, we should have no difficulty in marking a train of the ideas of these individuals; all that would be necessary would be to set down the marks, one after another, in the same order in which, one after another, the ideas occurred.

If all names were names of Species, as man, horse, eagle, the facility of marking the order of the ideas which they represent would be the same. If the idea man occurred first, the idea horse second, the idea eagle third; all that would be necessary would be to put down the name or mark man the first, the name or mark horse

the second, and the order of marks would represent the order of ideas.

But we have already seen, that the facility of communication requires names of different degrees of comprehensiveness; names of individuals, names of classes, and names both of the larger and the smaller classes. For the younger and less instructed part of my readers, it may be necessary to mention, that the names of the smaller classes, are called names of Species, or specific names; the names of the larger classes, names of Genera, or generic names. Thus, the term animal, denotes a large class; a class which contains the smaller classes, man, horse, dog, &c. The name animal, therefore, is called a Genus, or a generic name; the name man, a Species, or a specific name.

In using names of these different kinds; names of individuals, when the idea is restricted to one individual; and, for brevity, the names of classes; the names of the less when necessary, of the large when practicable; there is perpetual need of the substitution of one name for another. When I have used the names, James and John, Thomas and William, and many more, having to speak of such peculiarities of each, as distinguish him from every other, I may proceed to speak of them in general, as included in a class. When this happens, I have occasion for the name of the class, and to substitute the name of the class, for the names of the individuals. By what contrivance is this per-

formed? I have the name of the individual, *John*; and the name of the class *man*; and I can set down my two names; *John, man*, in juxtaposition. But this is not sufficient to effect the communication I desire; namely, that the word *man* is a mark of the same idea of which *John* is a mark, and a mark of other ideas along with it, those, to wit, of which *James, Thomas, &c.* are marks. To complete my contrivance, I invent a mark, which, placed between my marks, *John* and *man*, fixes the idea I mean to convey, that *man*, is another mark to that idea of which *John* is a mark, while it is a mark of the other ideas, of which *James, Thomas, &c.*, are marks. For this purpose, we use in English, the mark "is." By help of this, my object is immediately attained. I say, *John* "is" a *man*. I, then, use the word *man*, instead of the word *John*, with many advantages; because every thing which I can affirm of the word *man*, is true not only of *John*, but of *James*, and *Peter*, and every other individual of the class.

The joining of two names by this peculiar mark, is the act which has been denominated, PREDICATION; and it is the grand contrivance by which the marks of sensations and ideas are so ordered in discourse, as to mark the order of the trains, which it is our purpose to communicate, or to record.

The form of expression, "John is a man," is called a Proposition. It consists of three marks. Of these, "John," is denominated the SUBJECT; "man," the PREDICATE; and "is," the COPULA. To speak generally, and in the language of the grammarians, the nominative of the verb is the *subject* of the proposition; the substantive, or adjective, which agrees with the nominative, is the *predicate*, and the verb is the *copula*.

By a few simple examples, the reader may render familiar to himself the use of PREDICATION, as the grand expedient, by which language is enabled to mark not only sensations and ideas, but also the order of them.

For the more complete elucidation of this important part of the business of Naming, it is necessary to remark, that Logicians have classed Predications, under five heads; 1st, when the *Genus* is predicated, of any subject; 2dly, when the *Species* is predicated; 3dly, when the *Specific Difference* is predicated; 4thly, when a *Property* is predicated; 5thly, when an *Accident* is predicated. These five classes of names, the things capable of being predicated, are named PREDICABLES. The five Predicables, in Latin, the language in which they are commonly expressed, are named *Genus*, *Species*, *Differentia*, *Proprium*, *Accidens*.

We have already seen, perhaps at sufficient



length, the manner in which, and the end for which, the Genus, and the Species are predicated of any subject. It is, that the more comprehensive name, may be substituted for the less comprehensive; so that each of our marks may answer the purpose of marking, to as great an extent as possible. In this manner we substitute the word *man*, for example, for the word *Thomas*, when we predicate the Species of the individual, in the proposition, “Thomas is a man;” the word *animal*, for the word *man*, when we predicate the Genus of the Species, in the proposition, “man, is an animal.”

We have already, also, taken notice of the artifice, by which smaller classes are formed out of larger, by the help of secondary marks. Of these secondary marks, the principal classes are designated by the terms *Differentia*, *Proprium*, *Accidens*. No very distinct boundaries, are, indeed, marked by these terms; nor do they effect a scientific division; but, for the present purpose, the elucidation of the end to which Predication is subservient, they are sufficient.

*Differentia* is always an Attributive, applicable to a Genus, and which, when combined with it, marks out a Species; as the word *rational*, which is applicable to the Genus *animal*, and when applied to it, in the phrase “rational animal,” marks out a Species, and is synonymous with the word

*man*. In a similar manner the word *sensitive* is applicable to *body*, and marks out the subordinate Genus, *animal*.

*Proprium* is also an Attributive, and the Attributives classed under this title differ from those classed under the title *differentia*, chiefly in this; That those classed under *differentia*, are regarded as more expressly involved in the definition of the Species which they seem to cut out from the Genus. Thus, both *rational*, and *risible*, when applied to *animal*, cut out of it the class Man; but *rational* is called DIFFERENTIA, *risible* PROPRIUM, because *rational*, is strictly involved in the definition of *man*; *risible*, is not. Some Attributives are classed under the title *proprium*, which, when applied to the genus, do not constitute the same Species, constituted by the *differentia*, but a different Species; as *bipes*, two-footed animal, is the name of a class including at least the two classes of men, and birds; *hot-blooded animal*, is the name of a class so large as to include man, horse, lion, dog, and the greater part of the more perfectly organized Species. There are some Attributives, classed under the title *proprium*, which cut out of the Genus a class even less than that which is cut by the *differentia*; as, for example, the word *grammatical*. This word *grammatical*, applied to the word *animal*, in the term “grammatical animal,” separates a class so small, as to include

only part of the Species man, those who are called Grammarians. Such Attributives, for an obvious reason, are applicable, as well to the name of the Species, as to that of the Genus. Thus, we say, “a grammatical man,” as well as a “grammatical animal,” and that with greater propriety, as cutting out the sub-species from the Species more immediately.

The Attributives, classed under the title *accidens*, are regarded, like those classed under *differentia*, and *proprium*, as applicable to the class cut out by the *differentia*, but applicable to it rather fortuitously than by any fixed connection. The term *lame* is an example of such Attributives. The term *lame*, however, applied to the name of the Species, does not the less take out of it a sub-species, as “lame man,” “lame horse.”

With respect to these classes of Attributives (*Differentia, Proprium, Accidens*) this is necessary to be observed, and remembered; that they differ from one another only by the accident of their application. Thus, when *rational*, applied to the Genus *animal*, constitutes the Species man, all other Attributives applied to that Species are either *accidens*, or *proprium*; but these Attributives themselves may be the *differentia* in the case of other classes. Thus, *warm-blooded*, applied to *man*, stands under the class *proprium*; but when applied to the animals which stand distinguished

from the cold-blooded, as constituting a class, it becomes the *differentia*, and *rational*, with respect to this comprehensive class, is only an *accidens*.

We now arrive at a very important conclusion; for it thus appears, that all Predication, is Predication of Genus or Species, since the Attributives classed under the titles of *Differentia*, *Proprium*, *Accidens*, cannot be used but as part of the name of a Species. But we have seen, above, that Predication by Genus and Species is merely the substitution of one name for another, the more general for the less general; the fact of the substitution being marked by the *Copula*. It follows, if all Predication is by Genus and Species, that all Predication is the substitution of one name for another, the more for the less general.

It will be easy for the learner to make this material fact familiar to himself, by attending to a few instances. Thus, when it is said that man is rational, the term rational is evidently elliptical, and the word animal is understood. The word rational, according to grammatical language, is an adjective, and is significant only in conjunction with a substantive. According to logical language, it is a connotative term, and is without a meaning when disjoined from the object, the property or properties of which it connotes.

With respect, however, to such examples as this last, namely, all those in which the predicate



consists of the genus and differentia, the proposition is a mere definition ; and the predicate, and the subject, are precisely equivalent. Thus, “rational animal” is precisely the same class as “man ;” and they are only two names for the same thing ; the one a simple, or single-worded name ; the other a complex, or double-worded, name. Such propositions therefore are, properly speaking, not Predications at all. When they are used for any other purpose than to make known, or to fix, the meaning of a term, they are useless, and are denominated identical propositions.

The preceding expositions have shewn the peculiar use of the *Copula*. The Predication consists, essentially, of two marks, whereof the first is called the Subject, the latter the Predicate ; the Predicate being set down as a name to be used for every thing of which the Subject is a name ; and the *Copula* is merely a mark necessary to shew that the Predicate is to be taken and used as a substitute for the Subject.

There is a great convenience in giving to the *Copula* the same powers of connotation, in respect of Time, Manner, Person, and Number, as we have seen to be usefully annexed to the Verb.

It is necessary to explain a little this convenience ; and the explanation will have another advantage, that it will still farther illustrate the manner in which Predication serves the great purpose of marking the Order of ideas in a Train.



If the sensations or ideas in a train were to be marked as merely so many independent items, the mode of marking the order of them would be simple; the order of the marks itself might suffice. If this, for example, were the train; smell of a rose, sight of a rat, sound of a trumpet, touch of velvet, prick of a pin, these names placed in order might denote the order of the sensations.

In the greater number of instances, however, it is necessary to mark the train as the train of somebody; and for this purpose additional machinery is required. Suppose that the train I have to mark is the train of John, a train of the sensations of John; what are the marks for which I shall have occasion? It is first of all evident that I must have a mark for John, and a mark for each of the sensations. Suppose it is my purpose to represent John as having a sensation by each of his senses, sight, smell, &c., how must I proceed? I have first the word John, for the mark of the person; and I have the word seeing, for the mark of the sensation. But beside the marks, "John," "seeing," I have occasion for a mark to shew that I mean the mark "seeing" to be applied to the mark "John," and not to any other. For that purpose I use the word "is." I say "John is seeing," and the first sensation of John's train is now sufficiently denoted. In the same manner I proceed with the rest; John is smelling, John is tasting, John is hearing, John is touching.

But I have often occasion to speak not only of John's present sensations, but of his past or his future sensations; not of John as merely now seeing, hearing, &c., but as having been, or as going to be, the subject of these sensations. The *Copula* may be so contrived as most commodiously to connote the main distinctions of Time: not merely to mark the connexion between the two marks which form the subject and the predicate of the proposition, but to mark, along with this, either past, or present, or future, Time. Thus, if I say John is seeing, the copula marks present time along with the peculiar connexion between the predicate and the subject; if I say John was seeing, it connotes past time; if I say John will be seeing, it connotes future time.

As, in explaining the functions of verbs, there appeared a convenience in the contrivance by which they were made to connote three Manners; first, when no reference is made to any thing which is previously spoken of; secondly, when a reference is made to something which is previously spoken of; thirdly, when a reference is made to the will of one of the PERSONS; it will now be seen that there is the same convenience in making the *Copula* connote these references by a similar contrivance. Thus, when we speak of a man having sensations, we may speak of him as having them or as not having them, in consequence of something previously spoken of; or we may speak of

him as having them in consequence of our will. It is, therefore, useful, that the *Copula* should have moods as well as tenses. The same thing may be said of persons and numbers; of which no illustration seems to be required.

We come next to an observation respecting the *Copula*, to which the greatest attention is due. In all Languages, the Verb which denotes EXISTENCE has been employed to answer the additional purpose of the *Copula* in Predication. The consequences of this have been most lamentable. There is thus a double meaning in the *Copula*, which has produced a most unfortunate mixture and confusion of ideas. It has involved in mystery the whole business of Predication; the grand contrivance by which language is rendered competent to its end. By darkening Predication, it has spread such a veil over the phenomena of mind, as concealed them from ordinary eyes, and allowed them to be but imperfectly seen by those which were the most discerning.

In our own language, the verb, TO BE, is the important word which is employed to connote, along with its Subject, whatever it be, the grand idea of EXISTENCE. Thus, if I use the first person singular of its indicative mood, and say, "I am," I affirm EXISTENCE of myself. "I am," is the equivalent of "I am EXISTING." In the first of these expressions, "I am," the mark "am" involves in it the force of two

marks ; it involves the meaning of the word “ existing,” and the marking power or meaning of the *Copula*. In the second expression “ I am existing,” the word “ am ” ought to serve the purpose of the *Copula* only. But in reality its connotation of EXISTENCE still adheres to it ; and whereas the expression ought to consist of the three established parts of a Predication ; 1, the *subject* “ I ;” 2, the *predicate* EXISTING ; and 3, the *copula* ; it in reality consists of, 1, the subject “ I ;” 2, the predicate EXISTING ; 3, the *Copula* ; which signifies, 4, EXISTING, over again.

Let us take, as another case, that in which the subject and predicate of my intended proposition are, the word “ I ” and “ reading ”. I want for the purpose of predication only a *Copula* to signify nakedly that the mark “ reading ” is applied to the mark “ I ;” but instead of this I am obliged to use a word which connotes EXISTENCE, along with the force of the *Copula* ; and when I say “ I am reading,” not only *reading* is predicated of me, but EXISTING also. Suppose, again, my subject is “ John,” my predicate “ dead,” I am obliged to use for my *Copula* the word “ is,” which connotes EXISTENCE, and I thus predicate of John both *existence* and *death*.

It may be easily collected, from this one example, what heterogeneous and inconsistent ideas may be forced into connexion by the use of the Sub-



stantive Verb as the *Copula* in Predication; and what confusion in the mental processes it tends to produce. It is in the case, however, of the higher abstractions, and the various combinations of ideas which the mind, in the processes of inquiring and marking, forms for its own convenience, to obtain a greater command over its stores and greater facility in communicating them, that the use of the verb which conjoins the Predication of EXISTENCE with every other Predication, has produced the wildest confusion, and been the most deeply injurious. Is it any wonder, for example, that *Chance*, and *Fate*, and *Nature*, have been personified, and have had an EXISTENCE ascribed to them, as objects, when we have no means of predicating any thing whatsoever of them, without predicating such EXISTENCE at the same time. If we say that "chance is nothing;" we predicate of it, by the word "is," both *existence* and *nothingness*.

When this is the case, it is by no means to be wondered at, that philosophers should so long have inquired what those EXISTENCES are which abstract terms were employed to express; and should have lost themselves in fruitless speculations about the nature of entity, and quiddity, substance, and quality, space, time, necessity, eternity, and so on.

It is necessary here to take notice of a part of the marking power of Verbs, which could not be



explained till the nature of the *copula* was understood.

Every Verb involves in it the force of the *copula*. It combines the marking powers of an *adjective*, and of the *copula*; and all Verbs may be resolved into those elements. Thus, "John walks," is the same with "John is walking." Verbs, therefore, are attributives, of the same nature as adjectives, only with additional connotative powers; and they cut smaller classes out of larger, in the manner of adjectives. Thus "John walks," is an expression, the same in import as the Predication "John is a walking man;" and, walking men, standing men, running men, lying men, are all sub-species of the Species Man.

The same unhappy duplicity of meaning, which is incurred by using the *Substantive Verb* as the *copula* in Predication, is inflicted on *other Verbs*, in that part of their marking power by which they exhibit the connexion between the two terms of a Predication. The *copula*, included in Verbs, is not the PURE *copula*, but the ACTUAL *copula*; the *copula* familiar and in constant use; namely, the *Substantive Verb*. From this it results, that whatever the peculiar attribute, which is predicated by means of any verb, EXISTENCE is always predicated along with it. Thus, when I say "John walks," which is equivalent to "John is walking," I predicate both existence, and walking, of John. When I say, "Caliban existed not,"

which is the same as "Caliban was not existing," I predicate both existence, and non-existence, of the imaginary being Caliban. By the two first words of the Predication, "Caliban was," existence is predicated of him; by the addition of the compound term "not existing," the opposite is predicated of him.

The instances, in which the more complicated formations of the mind are the subjects of this double Predication, are those which, from the importance of their consequences, deserve the greatest degree of attention. Thus, when we say "virtue exalts," both *existing*, and *exalting*, are predicated of virtue. When we say that "passion impels," both *existence*, and *impulsion*, are predicated of passion. When we say that "Time generates," and "Space contains all things," we affirm *existence* of space and time, by the same expression by which we affirm of the one, that it generates; of the other, that it contains. This constancy of Predication, forcing the same constancy in the junction of the ideas, furnishes a remarkable instance of that important case of association, of which we took notice above, where, by frequency of association, two ideas become so joined, that the one constantly rises, and cannot be prevented from rising, in combination with the other. Thus it is, that Time forces itself upon us as an *object*. So it is with Space. We cannot think of Space, we cannot think of Time, without thinking of them as ex-

istent. With the ideas of space and time, the idea of EXISTENCE, as it is predicated of objects, is so associated, by the use of the Substantive Verb as the *copula* in predication, that we cannot disjoin them. The same would have been the case with Chance, and Fate, and Nature; if our religious education did not counteract the association. It was precisely the same, among the Greeks and Romans, whose religious education had not that effect.

We have now observed, wherein Predication consists, and the instruments by which it is performed. We have also, in part, contemplated the End which it is destined to fulfil; that is, to mark the order in which sensations and ideas follow one another in a train. On this last part of the subject, however, the following observations are still required.

The trains, the order of which we have occasion to mark, may, for the elucidation of the present subject, be divided into two classes. We have occasion to mark, either, first, The series of the objects we have seen, heard, or otherwise perceived by our senses; or, secondly, A train of thoughts which may have passed in our minds.

1. When we come to record a train of the objects we have perceived, that is, a train of sensations, the sensations have become ideas; for the objects are not now acting on our senses, and the sensations are at an end.

The order of the objects of our senses, is either the order of time, or the order of place. The first is the order of SUCCESSION; when one object comes first, another next, and so on. The second is the order of POSITION; when the objects are considered as simultaneous, but different in distance and direction from a particular point.

Let us observe in what manner the artifice of Predication is adapted to the marking of a train in either of those orders: and first, with respect to a train in the order of Time.

Of this the following may be taken as a simple example. "The sun rises; clouds form; clouds cover the sky; lightning flashes; thunder roars." It is easy in these expressions to observe, what were the sensations, and in what order they succeeded one another. It is also observable, that the order is denoted by so many Predications; and that Predication is our only expedient for denoting their order. First sensation, "sight of the sun;" second sensation, "rising of the sun;" these two denoted shortly and in their order by the Predication, "the sun rises." Third sensation, "sight of clouds;" fourth sensation, "forming of clouds;" these two again shortly denoted in their order by the Predication, "clouds form." The next, "clouds cover the sky," needs no further explanation; but there is a peculiar artifice of language in the two following Predications; "lightning flashes," "thunder roars," which de-



serves to be well understood. "Lightning flashes ;" here there is but one sensation, the sensation of sight, which we call a flash. But there are various kinds of flashes ; this is a peculiar one, and I want to mark peculiarly what it is. It is not a flash on the earth, but a flash in the sky ; it will not, however, sufficiently distinguish the flash in question, to say, the sky flashes, because other flashes come from the sky. What then is my contrivance ? I form the fancy of a cause of this particular flash, though I know nothing concerning it, and for this unknown cause I invent a name, and call it lightning. I have then an expression which always accurately marks the sensation I mean to denote : I say, " the lightning flashes," " a flash of lightning," and so on. " Thunder roars," is another case of the same artifice. The noise here is the only sensation ; but in order to distinguish it from all other noises, I invent a name for its unknown cause, and by its means can mark the sensation with perfect precision.

The Fictions, after this manner resorted to, for the purpose of marking ; though important among the artifices of naming ; have contributed largely to the misdirection of thought.

By the unfortunate ambiguity of the *Copula*, EXISTENCE is affirmed of them in every Predication into which they enter. The idea of EXISTENCE becomes, by this means, inseparable from them ; and their true nature, as Creatures of the



mind, and nothing more, is rarely, and not without difficulty, perceived.

The mode in which a train, in the order of place, is marked by the artifice of Predication, may be thus exemplified: "The house is on a hill; a lawn is in front; a stable is on the left hand; a garden is on the right; a wood is behind." It is not necessary, after the exposition of the preceding example, to exhibit the detail of the marking performed by these Predications. The reader can trace the sensations, the order of them, and the mode of the marking, according to the specimen which has just been exhibited.

2. The trains of thought which pass in our minds, are sequences, the items of which are connected in three principal ways: 1st, as cause and effect; 2dly, as resembling; 3dly, as included under the same name. A short illustration of each of these cases will complete the account of predication, as a contrivance for marking the order of ideas.

To illustrate a sequence, connected as Cause and Effect, let me suppose that I have a flint and steel in my hand, which I am about to strike, one against the other, but at that instant perceive a barrel of gunpowder open, close before me. I withhold the stroke in consequence of the train of thought which suggests to me the ultimate effect. If I have occasion to mark the train, I can only do it by a series of Predications, each of which

marks a sequence in the train of causes and effects. "I strike the flint on the steel," first sequence. "The stroke produces a spark," second sequence. "The spark falls on gunpowder," third sequence. "The spark ignites the gunpowder," fourth sequence. "The gunpowder ignited makes an explosion," fifth sequence. The ideas contained in these propositions must all have passed through my mind, and this is the only mode in which language enables me to mark them in their order.

The sequences of which the items are connected by Resemblance will not require much illustration. I see A, who suggests B to me by his stature. B suggests C by the length of his nose. C suggests D by the similarity of their profession, and so on. The series of my thoughts is sufficiently obvious. How do I proceed when I have occasion to mark it? I use a series of predications. "I see A;" this predication marks the first item, my sight of A. "A is tall," the second. "A man of like tallness is B," the third; and so on.

The mode in which thoughts are united in a Syllogism, is the leading example of the third case. Let us consider the following very familiar instance. "Every tree is a vegetable: every oak is a tree: therefore, every oak is a vegetable." This is evidently a process of naming. The primary idea is that of the object called an oak;

from the name oak, I proceed to the name tree, finding that the name oak, is included in the name tree; and from the name tree, I proceed to the name vegetable, finding that the name tree is included in the name vegetable, and by consequence the name oak. This is the series of thoughts, which is marked in order, by the three propositions or predications of the syllogism.

The Predications of Arithmetic are another instance of the same thing. "One and one are two." This again is a mere process of naming. What I call one and one, in numbering things, are objects, sensations, or clusters of sensations; suppose, the striking of the clock. The same sounds which I call one and one, I call also two; I have for these sensations, therefore, two names which are exactly equivalent: so when I say, one and one and one are three: or when I say two and two are four: ten and ten are twenty: and the same when I put together any two numbers whatsoever. The series of thoughts in these instances is merely a series of names applicable to the same thing, and meaning the same thing.

Beside the two purposes of language, of which I took notice at the beginning of this inquiry; the recording of a man's thoughts for his own use, and the communication of them to others; there is a use, to which language is subservient, of which some account is yet to be given. There

are complex sensations, and complex ideas, made up of so many items, that one is not distinguishable from another. Thus, a figure of one hundred sides, is not distinguishable from one of ninety-nine sides. A thousand men in a crowd are not distinguishable from nine hundred and ninety-nine. But in all cases, in which the complexity of the idea rises from the repetition of the same idea, names can be invented upon a plan, which shall render them distinct, up to the very highest degree of complication. Numbers are a set of names contrived upon this plan, and for this very purpose. Ten and the numbers below ten, are the repetition of so many ones: twenty, thirty, forty, &c., up to a hundred, are the repetition of so many tens: two hundred, three hundred, &c., the repetition of so many hundreds; and so on. These are names, which afford an immediate reference to the ones or units, of which they are composed; and the highest numbers are as easily distinguished by the difference of a unit as the lowest. All the processes of Arithmetic are only so many contrivances to substitute a distinct name for an indistinct one. What, for example, is the purpose of addition? Suppose I have six numbers, of which I desire to take the sum, 18, 14, 9, 25, 19, 15; these names, eighteen, and fourteen, and nine, &c., form a compound name; but a name which is not distinct. By summing them up, I



get another name, exactly equivalent, one hundred, which is in the highest degree distinct, and gives me an immediate reference to the units or items of which it is composed; and this is of the highest utility.

That the Predications of Geometry are of the same nature with those of Arithmetic, is a truth of the greatest importance, and capable of being established by very obvious reasoning. It is well known, that all reasoning about quantity can be expressed in the form of algebraic equations. But the two sides of an algebraic equation are of necessity two marks or two names for the same thing; of which the one on the right-hand side is more distinct, at least to the present purpose of the inquirer, than the one on the left-hand side; and the whole purpose of an algebraic investigation, which is a mere series of changes of names, is to obtain, at last, a distinct name, a name the marking power of which is perfectly known to us, on the right-hand side of the equation. The language of geometry itself, in the more simple cases, makes manifest the same observation. The amount of the three angles of a triangle, is twice a right angle. I arrive at this conclusion, as it is called, by a process of reasoning: that is to say, I find out a name, "twice a right angle," which much more distinctly points out to me a certain quantity, than my first name, "amount of the three angles of a triangle;" and



the process by which I arrive at this name is a successive change of names, and nothing more ; as any one may prove to himself by merely observing the steps of the demonstration.

There is one important class of words, the NAMES of NAMES ; of which we shall have occasion to take account more particularly hereafter, and of which it is necessary here to speak only as they form a variety of Predication. A few examples will make the case intelligible. WORD is a *generical* name for all Names. It is not the name of a Thing, as chair is the name of a thing, or watch, or picture. But word is a *name* for these several *names* ; chair is a word, watch is a word, picture is a word, and so of all other names. Thus grammatical and logical terms are names of names. The word *noun*, is the name of one class of words, *verb* of another, *preposition* of another, and so on. The word *sentence*, is the name of a series of words put together for a certain purpose ; the word *paragraph*, the same ; and so *oration*, *discourse*, *essay*, *treatise*, &c. The words *genus* and *species*, are not names of things, but of names. Genus is not the name of any thing called animal or any thing called body ; it is a name of the *names* animal, body, and so on ; the *name* animal is a *genus*, the *name* body is a *genus* ; and in like manner is the *name* man a *species*, the *name* horse, the *name* crow, and so on. The name *proposition*, the name

*syllogism*, are names of a series of words put together for a particular purpose ; so is the term *definition* ; and the term *argument*. It will be easily seen that these words enter into Predication precisely on the same principles as other words. Either the more distinct is predicated of the less distinct, its equivalent ; or the more comprehensive of the less comprehensive. Thus we say, that nouns and verbs are declinables ; preposition and adverb indeclinables ; where the more comprehensive terms are predicated of the less. Thus we say, that adjectives and verbs are attributives ; where the more distinct is predicated of the less.

## SECTION V.

## PRONOUNS.

The principal part of the artifice of Naming is now explained. We have considered the nature of the more necessary marks, and the manner in which they are combined so as to represent the order of a train. Beside those marks, which are the fundamental part of language, there are several classes of auxiliary words or marks, the use of which is, to abbreviate expression, and to render it, what is of great importance, a more rapid vehicle of thought. These are usually comprehended under the titles of pronoun, adverb, preposition, and conjunction ; a classification which, for our present purpose, has the best recommendation, that of being familiarly known.

It is to be distinctly understood, that in the account which is here to be given of the subsidiary parts of speech, it is but one part of the explanation of them which will be attempted. The ideas, which many of them stand for, are of the most complicated kind, and have not yet been expounded. We are, therefore, not yet prepared to point out the items which they mark. Our present business is only to indicate the mode in which

they are used in Predication, as part of the great contrivance for marking the order of a train of ideas, and for economizing the number of words.

It is also necessary to observe, that I have limited myself, in this part, to brief indications, without going into minute developement, the length of which, it appeared to me, would not be compensated by the advantage.

In all speech there is a *speaker*; there is some *person spoken to*; and there is some *person* or *thing spoken of*. These objects constitute three Classes, marks of which are perpetually required. Any artifice, therefore, to abridge the use of marks, of such frequent recurrence, was highly to be desired. One expedient offered itself obviously, as likely to prove of the highest utility. *Speakers* constituted one class, with numerous names; *persons spoken to*, a second class; *persons* and *things spoken of*, a third. A *generical* name might be invented for each class; a name, which would include all of a class, and which singly might be used as the substitute of many. For this end were the Personal Pronouns invented; and such is their character and office. "I," is the generical mark which includes all marks of the class, *speakers*. "Thou," is a generical mark, which includes all marks of the class, *persons spoken to*. "He," "she," "it," are marks, which include all marks of the class, *persons* or *things spoken of*.

By forming Adjectives from certain kinds of Nouns we obtain a useful class of specific names. From wool we make woollen; and woollen, attached to various generic names, furnishes us with specific names; thus we say woollen cloth, which is a species of cloth; woollen yarn, which is a species of yarn; woollen garment, which is a species of garment. So, from the word gold we make golden, which furnishes us with a greater number of specific names; from wood wooden, which furnishes us with a still greater number. Adjectives are formed in like manner from the personal pronouns: from I, my or mine; from Thou, thy or thine; from He, She, It, his, hers, its; also from the plurals of them, ours, yours, theirs. These adjectives answer a purpose of very frequent recurrence; that of singling out, from any class of objects, a sub-class, or an individual, bearing a peculiar relation, to the *person speaking*, the *person spoken to*, or the *person or thing spoken of*. Thus, when I say, my sheep or my oxen, I denote a sub-class of those animals, those which stand in the relation of property to the speaker; when I say thy sheep or oxen, I denote a sub-class in the same relation to the person spoken to; and when I say his sheep or oxen, a sub-class, standing in that relation to the person spoken of. When I say my son, thy wife, his father, I single out individuals having that relation.



The Demonstrative Pronouns, This, and That, are of great utility. They serve to individualize any thing in a class. One of these marks put upon a specific mark, makes it an individual mark. Thus, the mark "man," is the name of a class: put upon it the mark this, or that; this man, and that man, are marks, signs, or names, of individuals. In this manner innumerable individual names can be made, without adding a single word to the cumbrous materials of language.

The nature of the Relative Pronoun is not difficult to understand. It supplies the place of a personal pronoun and a conjunction, in connecting a Predication with the subject, or predicate of another proposition. Thus, "John received a wound, *which* occasioned his death," is of the same import as "John received a wound, *and it* occasioned his death." This is a case in which the Relative connects a subsequent predication with the *predicate* of an antecedent predication. The following are cases in which it connects a subordinate predication with the *subject* of the principal one: "Erasmus, *who* was a lover of truth, but of a timid character, hesitated between the new and the old religion." Erasmus, *and he* was a lover of truth, &c. "The man *who* spoke to you is my father." "The man spoke to you, *and he* is my father."

The Interrogative is easily explained. It is merely the Relative, in a very elliptical form of ex-

pression. The interrogative sentence, “*Who* gave you that book?” when the subaudition is supplied, is thus expressed: The person gave you the book, *and him* I will you to name to me. *What* is the hour of the day?” is an elliptical form of,—It is an hour of the day, *and it* I will you to tell me.

## SECTION VI.

## ADVERBS.

The power of this class of words, in the great business of marking, and the extent of the service rendered by them, will be so easily seen, that a few words will suffice to explain them. Adverbs may be reduced under five heads; 1, Adverbs of Time; 2, Adverbs of Place; 3, Adverbs of Quantity; 4, Adverbs of Quality; 5, Adverbs of Relation. They are mostly abridgments, capable of being substituted for longer marks. And they are always employed for the purpose of putting a modification upon the Subject, or the Predicate, of a Proposition. A few examples will suffice for the further elucidation of this subject. "Anciently," is an adverb of time. It is of the same import as the expression, "In distant past time." It is applied to modify the subject, or predicate, of a proposition, as in the following example: "A number of men anciently in England had wives in common." "Had wives in common," is the predicate of the above proposition, and it is modified, or limited, in respect to time, by the word "anciently." Adverbs of place it is easy to exemplify in the same manner. Under adverbs of quantity all those which mark

degrees may be included ; as greatly, minutely : Thus, “ He enlarged greatly upon patriotism : ” “ Greatly ” here means “ in many words ; ” and it modifies the predicate, “ enlarged, ” &c. Adverbs of quality and relation are exceedingly numerous, because they are easily made from the words which connote the quality or relation : thus, from hard, hardly ; from loud, loudly ; from sweet, sweetly ; from warm, warmly : again, from father, paternally ; from son, filially ; from magistrate, magisterially ; from high, highly ; from expensive, expensively ; and so on. In all this no difficulty is presented which requires removing.

## SECTION VII.

## PREPOSITIONS.

It is easy to see in what manner Prepositions are employed to abridge the process of discourse. They render us the same service which, we have seen, is rendered by adjectives, in affording the means of naming minor classes, taken out of larger, with a great economy of names. Thus, when we say, “a man with a black skin;” this compound name, “a man with a black skin,” is the name of a sub-class, taken out of the class man; and when we say, “a black man with a flat nose and woolly hair;” this still more compound name is the name of a minor class, taken out of the sub-class, “men with a black skin.”

Prepositions always stand before some word of the class called by grammarians nouns substantive. And these nouns substantive they connect with other nouns substantive, with adjectives, or with verbs. We shall consider the use of them, in each of those cases.

1. Substantives are united to Substantives by prepositions, on purpose to mark something added, something taken away, something possessed or owned. Thus, a man with a dog, a horse with-



out a saddle, a man of wealth, a man of pleasure, and so on.

It was first shewn by Mr. Horne Tooke, that prepositions, in their origin, are verbs, or nouns. Thus the prepositions in English, which note the modifications effected by, adding to, or taking from, were originally concrete words, which, beside something connoted by them, marked particularly *junction*, or *disjunction*. In the use of them as prepositions, that part of their signification, which we have called the connotation, has been dropped; and the notation alone remains. Prepositions, therefore, are a sort of abstract terms, to answer a particular purpose. To express my idea of a man with a dog (a very complex idea, consisting of two clusters; one, that which is marked by the term man; the other, that which is marked by the term dog); it is not enough that I set down the term Man, and the term Dog; it is necessary, besides, that I have a mark for that particular *junction* of them, which my mind is making. For that mark I use the preposition "with." "Without" denotes disjunction in a similar manner, and requires no further explanation. The preposition "of," by which possession or ownership is denoted, (formerly, as remarked by Mr. Gilchrist, written *og*, *oc*, *ac*, &c.), is *eke*, or *add*. If we suppose that our verb *have* is of the same origin, *of* is merely the verb, which signifies possessing; and the learner

may thus conceive the nature of its different applications. "A man of wealth," a man hav(ing) wealth; "a field of ten acres," a field hav(ing) ten acres; so, "a house of splendour;" "a woman of gallantry;" in all of which cases, beside the two clusters of ideas, marked by the two names which the preposition connects, there is an idea of possession coming between.

Here, however, a peculiarity is to be noted. When there is a possessor, there is something possessed. The preposition, therefore, which marks the relation between the possessor and the possessed, stands ambiguously between the active and the passive power. It, therefore, partakes more of the active or the passive signification, according to the position of the words which it is employed to connect. In the instances previously given, we have seen that it had clearly an active signification. In the following it has clearly a passive. "The book of John;" the book *of*, hav(ed) John. "The Creator of the world;" Creator hav(ed). "The wealth of Cræsus;" wealth hav(ed).

Of is employed in a partitive sense, when one of the words denotes a part of the other; as "half of the army;" "many of the people;" "much of the loss." In this case the idea of possession is sufficiently obvious to support the analogy. The parts are possessed, had, by the whole. "Part of the debt," part hav(ed) the debt.

It is easy to see how the preposition with a substantive, serves the purpose of a new adjective. Thus, in the expression, "a man with one eye," the words, "with one eye," might have been supplied by an adjective, having the same meaning or marking power; and the French language actually has such an adjective, in the mark *borgne*. We say, a man with red hair, and we have the adjective, red-haired; a man of wealth, and we have the adjective, wealthy; a man of strength, and we have the adjective, strong; cases which distinctly exemplify our observation.

2. We come now to shew in what manner, and with what advantage, prepositions are employed to connect Substantives with Adjectives. The following classes of adjectives will furnish sufficient illustration of this part of the subject: 1, Adjectives of place or position; 2, Adjectives of time or succession; 3, Adjectives signifying profit or disprofit; 4, Adjectives of plenty or want; 5, Adjectives signifying an affection or state of the mind.

Adjectives of position, such as near, distant, high, low, have the ordinary power of adjectives, as marks upon marks; and an additional power, which will best be explained by examples. When we say "a distant house," "a neighbouring town;" the words "distant," and "neighbouring," are not only marks upon "house," and "town," but refer to something else: "a *distant* house," is a

house distant from *something*; “a *neighbouring* town, is a town neighbouring *something*: it may mean “a house distant from my house,” “a town neighbouring my house:” in these cases, we should say that the adjective has both a notation, and a connotation. The adjective *distant*, for example, notes *house*, and connotes *my house*; *neighbouring*, notes *town*, connotes *my house*. It is next, however, to be observed, that the connotation, in such cases, would be vague without a mark to determine it. The expression would be very imperfect, if, after the word *high*, we were merely to put the word “*hill*;” and say, “the house is high the *hill* ;” or, “the house is distant the *post-town*.” Prepositions supply this defect. We say, “the house is high *on* the *hill* ;” “the house is distant *from* the *post-town*.” In the case of some adjectives, their juxta-position makes the reference sufficiently precise; and in that case, the preposition may be dispensed with; as, near the town, near the road, &c.

It is observable, that the adjectives of position are not numerous. Some very general ones are used; and the sub-species are formed out of them by the aid of prepositions. Thus we have the word *placed*, which includes all positions; and this, joined with a substantive and a preposition, marks positions of all kinds: thus we can say, placed on the right hand, placed on the left hand, placed behind the house, placed before the



house, placed above it, placed below it, placed in it, and so on.

It is not my intention to inquire into the precise meaning of each of the prepositions. It is sufficient to have given a sample of the inquiry, as in the case of the prepositions which connect substantives with substantives; and to have shewn the mode of their signification, as a kind of abstract terms, either active or passive.

The varieties of time or succession are not many, and the words to denote them, proportionally few. Previous, simultaneous, posterior, are the principal adjectives; and the terms to which these words of reference point, are marked by prepositions: thus we say, previous to, simultaneous to, and also with; "with," as we have seen, denoting junction, sameness of time.

Adjectives of profit or disprofit, need prepositions to mark their connexion with the things benefited or hurt; as, hurtful to the crop; good for the health. These adjectives afford a good example of the manner in which generical adjectives are divided into numerous sub-species, without the inconvenience of new names, by the aid of the prepositions: thus, hurtful, which notes all kinds of hurtfulness, is made to note its various species, in the following manner: hurtful to the health, hurtful to the eyes, hurtful to the stomach, hurtful to the crops, hurtful to the reputation: all different species of hurtfulness, which



might be noted by adjectives severally appropriated to them.

There is nothing particular to be remarked of the manner in which adjectives of plenty, or want, or those signifying an affection of the mind, are connected with the objects they connote, by prepositions; we shall, therefore, proceed to shew the manner in which verbs are connected with substantives, by their means.

All verbs are adjectives, either active or passive, put into a particular form, for the sake of a particular connotation. All actions, saving those which begin and end in the actor, have a reference to a patient, or something acted on; and the being acted on; the passion as it is called; has a reference to the actor. Action, therefore, and passion, are relative terms, standing in the order of cause and effect; agent and patient, are the names of the subjects of the action and the passion, the cause and the effect.

Most actions are motions, or named by analogy to motions. In applying terms denoting motion, there is particular occasion for marking the two points of termination; the point at which it began, and the point at which it ended. This is effected by the name of the two places, and a preposition. The contrivance will be sufficiently illustrated by an obvious example: "John travelled from London to Dover:" "Travelled," the name of the motion; London, the point of com-

mencement; Dover, the point of termination: from, a word denoting commencement, connecting London with travelled; to, a word signifying completion, connecting the word Dover, with the word travelled.

Some verbs, which imply motion, have their main, or only reference, to the point of its termination. Thus, he stopped at Dover: he struck him on the head: he stabbed him in the side. These prepositions, whatever their precise import, which we shall not now stop to inquire, mark, when thus applied to the name of the place at which the respective motions terminated, the connexion of the two names, that of the motion, and that of its point of termination.

With respect to motions, we have occasion to mark, not only the points of their commencement and termination, but also their direction. The direction of a motion, by which we mean the position of the moving body, at the several points of its course, can only be marked by a reference to other bodies, whose position is known. Thus, "He walked through the field." The direction of the walk, or the position of the walking man, at the several moments of it, is marked by a reference to the field whose position is known to me, and a word which means, from side to side. The expression, "It flew in a straight line," is less full and particular in its marking, but clear and distinct, as far as it goes, by reference to a

modification of position ; namely, a line, with which I am perfectly familiar.

In using verbs of action and passion, that is, words which mark a certain cluster of ideas, we have occasion to modify such clusters, by adding to, or taking from them, not only ideas of Position, as above, but various other ideas ; of which the idea of the Cause, or End, of the action, the idea of the Instrument with which it was performed, and the idea of the Manner of the performance, are among the principal. “ John worked ; ” to this, a mark of a certain cluster of ideas, I want to make an addition, that of the Cause or End of his working. That End is, Bread. To mark this as the cause of his working, it is not enough to set down the name bread ; I need a mark to fix its connexion with the working, and the kind of its connexion. I say, “ John worked for (cause) bread.” “ John was robbed for (cause of the robbery) his money.” The ideas of manner and instrument are commonly annexed by one preposition ; “ John worked with (joining) diligence,” the manner ; “ John worked with a spade,” the same idea, as “ John with (joined) a spade worked ; ” spade, the instrument. “ John worked by the job, worked by the day ; ” manner : “ John worked by machinery,” the instrument. “ He was killed with barbarity, with a cudgel.”

We say, done with hurry, or in a hurry, done in haste. “ In,” which seems to mark a modification

of position, is here applied to that which does not admit of position. Hurry and haste seem in such expressions to be personified ; to be things which surround an action, and in the midst of which it is done.

We have compound names for many actions. Thus, we may say, "he hurt John," or, "he did hurt to John," "he gave a lecture to John," or, "he lectured John." The reason why a preposition is required before the patient, in the case of the compound name of the action, and not of the single name, is, that the word which stands with respect to the verb in the immediate relation of the recipient or patient of the action, is not the man, but the thing done. Thus, in the phrase, "he did hurt to John," it is not John which is done, but hurt : in the phrase, "he gave a lecture to John," it is not John who is given, but a lecture. There are here, as it were, two patients, lecture, the primary, John, the secondary ; juxtaposition marks the connexion of the primary ; but a preposition is necessary, to mark that of the secondary.

The following phrases seem to admit of a similar explanation. "He reminded him of his promise ;" "he accused him of perjury ;" "he deprived him of his wife : " the secondary patients being "promise," "perjury," "wife." He reminded him of his promise (hav(ed) his promise) ; the promise being the thing had or conceived in

the reminding : accused him of perjury ; perjury being the thing had in the accusation, the matter of the accusation : deprived him of his wife ; his wife being the matter of the deprivation ; the thing hav(ed) in it.



## SECTION VIII.

## CONJUNCTIONS.

The Conjunctions are distinguished from the Prepositions, by connecting Predications ; while the Prepositions connect only Words.

There are seeming exceptions, however, to this description, the nature of which ought to be understood. They are all of one kind ; they all belong to those cases of Predication, in which either the subject or the predicate consists of enumerated particulars ; and in which the Conjunction is employed to mark the enumeration. Thus we say, “ Four, and four, and two, are ten.” Here the *subject* of the predication consists of three enumerated particulars, and the conjunction seems to connect words, and not predications. In like manner, we say, “ His bag was full of hares, and pheasants, and partridges.” In this last case, the *predicate* is composed of enumerated particulars. In these instances, the words called conjunctions, appear to perform the business of propositions, in joining *words* ; and in fact, they may be supplied by prepositions. Thus, instead of “ four, and four, and two, are ten,” we may say, “ four, with four, with two, are ten :” and, in the

same way, "His bag was full of hares, and pheasants, and partridges," may be put "full of hares, with pheasants, with partridges." And nothing can be more simple than such a variety in the use of such words.

*With* means *join*; *and* means *add*. These are words of the same kind, and the same import; and nothing but use has appropriated the one to the joining of words rather than predications, the other to the joining of predications rather than words.

Our object, however, on the present occasion, is distinct, both from that of the grammarian, and that of the etymologist. We have shewn, that a set of marks are exceedingly useful to connect single words, and by what contrivances this end is accomplished; it remains for us to shew, what use there is of marks to connect Predications; and by what contrivances that object is attained.

The occasions for the use of marks to connect Predications, seem to be of two kinds.

First, When two Predications are to be marked, as following one another.

Secondly, When they are to be marked, as modified, the one by the other.

1. Those of the first kind need but few words for their explanation.

I may say, "Newton was a mathematician," "Locke was a metaphysician," "Milton was a poet." So stated, these Predications do not mark

any particular order in my thoughts. I desire, however, to show, that the ideas thereby expressed, were *proximate* parts of the train in my mind. The word *and*, which means *add*, placed between every pair, affords the requisite indication.

Like *and*, the conjunction *nor* marks predications in sequence. It differs from *and* only in uniting *negative* predications. "The act is not honourable, *nor* is the man honest." In this case, it is obvious that *nor*, whatever its origin, has the meaning of *and not*. The predications then are two negative predications, the sequence of which, is marked by the word *and*.

*But*, though it has been otherwise classed, and called adversative, is of the same kind, and simply marks the sequence. Thus we say, "Catiline was a brave man, but Catiline was a wicked man." The meaning of *but* is scarcely different from that of *and*, addition being the fundamental idea signified by both of them. The *opposition* between the two predications is signified by the predications themselves, not by the connective. In fact, the sense would not be changed, if we substituted *and* for *but*. It is only because, in use, *but* has been commonly confined to the sequence of two *opposing* predications, that the word *but* is no sooner expressed, than an *opposing* predication is anticipated. This is a simple case of association.

2. It is not necessary for us to do more than exemplify the principal cases in which one Predication is modified by another.

“The space is triangular, *if* it is bounded by three straight lines.”

“The space is triangular, *because* it is bounded by three straight lines.”

“The space is bounded by three straight lines, *therefore* it is triangular.”

In each of these three propositions, there are two predications; the one of which is dependent on the other. The dependence is that of necessary consequence. The triangularity is the consequence of being bounded by three straight lines.

In order to have names for two Predications thus related, we may call the one the *conditioning*, the other the *conditioned*. In the above instances, “The space is bounded by three straight lines,” is the *conditioning* predication; “The space is triangular,” is the *conditioned*.

There are two states of the conditioning predication; one, in which it is contingent; another, in which it is positive. Observe, now, the simple contrivance for marking the dependence of the *conditioned* upon the *conditioning* predication, in all the above cases.

In the first of the examples, “The space is triangular, *if* it is bounded by three straight lines,” the *conditioning* predication is contingent. The

word *if*, which is equivalent to *give*, prefixed to the conditioning predication, marks it both as the conditioning predication, and as contingent.

In the second of the examples, "The space is triangular, because it is bounded by three straight lines," the *conditioning* predication is positive; the word *because* (having the meaning of, *cause be*, or *cause is*) prefixed to it, marks it as at once the conditioning predication, and also positive. If *for* had been the mark instead of *because*, the artifice would have been still the same, as *for* has the meaning of *cause*.

In the third of the examples, "The space is bounded by three straight lines, *therefore* it is triangular;" the order of the predications is inverted, the *conditioning* being put first. In this case, therefore, we need a mark to shew that the last predication is conditioned, and conditioned by the preceding. This is done by prefixing to it the compound word, *therefore*, of which the first part *there* is equivalent to *that*, and *fore* or *for* means *cause*. The expression in its elementary form being, "The space is bounded by three straight lines; for that, or cause that, the space is triangular."

In these cases we have examples of what are called, the Suppositive, the Causal, and the Illative conjunctions.

The following are examples of what are called the Disjunctive.



“The ship was well manned; *else* it would have been lost.”

“*Unless* the ship had been well manned, it would have been lost.”

In these two examples, the conditioning predications are, “The ship was well manned;” “The ship had been well manned:” the *conditioned* is, “it would have been lost,” in both instances.

The dependence here, between the *conditioning* and *conditioned*, is that of physical consequence. The ship’s not being lost, was the consequence of its being well manned. The contrivance for marking this dependence is akin to that which we have traced in the former instance.

In the first of the two examples, the *conditioning* predication stands first. How do I mark that the next is *conditioned*, and conditioned as a physical consequent? I interpose the word *else*. This is part of an obsolete verb, signifying, *to dismiss, to turn out, to take away*. And the sentence is thus resolved: “The ship was well manned,” *take away that* (take away the cause, the effect is taken away also) “she would have been lost.”

Other conjunctions, of the disjunctive kind, as they are called, would here have answered the same purpose with *else*. “The ship was well manned, *otherwise*, she would have been lost.” *Otherwise* here is precisely of the same import as

*else*. “The ship was well manned;” that being dismissed, that being *other* than it was; “it would have been lost.”

“The ship was well manned, *or* it would have been lost.” *Or*, in German *oder*, is *other*. The resolution of this sentence, therefore, is the same as the former.

In the second of the two examples, “*Unless* the ship had been well manned, it would have been lost,” the contrivance is the same, with a mere change of position. *Unless*, is a word of the same import, rather the same word, as *else*. *Unless* is PREFIXED to the *conditioning* predication, whereas *else* is SUFFIXED; and that is the difference. The word *except*, which signifies *take away*, may be substituted for *unless*. A peculiar application of *if* (*give*) may here also be exemplified. *If* with the negative, (*if not*), has a similar signification with *unless*, *except*; “*If* the ship had not been well manned, &c.”

Let us now pass to another case.

“*Although* the ship was well manned, it was lost.” The two predications may change places, without change of meaning. “The ship was lost, *although* it was well manned.”

What (as above) was to be marked by *else*, *unless*, *if not*, *except*, and so on, was the connexion between a cause and its usual effect; that is, the manning of a ship, and the safety of the ship. What is to be marked in this case is the want of

connexion between a cause and its usual effect. It is done by similar means.

*Although* is part of an obsolete verb, *to allow, to grant*. The two predications are: "The ship was well manned," "The ship was lost." I want to mark between my two predications not only a connexion, that of the antecedence and consequence of the predicated events, but the existence of a consequent differing from that by which the antecedent is usually followed. *Although*, prefixed to the predication of the antecedent event, gives notice of another predication, that of the consequent, and of a consequent differing from that by which the antecedent might have been followed: *Grant* such an antecedent, such and not such was the consequent.

The same connexion is marked by other conjunctions. "The ship was well manned, *nevertheless* it was lost." *Nevertheless*, means *not less for that*. "*Notwithstanding* the ship was well manned, it was lost." *Notwithstanding*, is, *not being able to prevent, maugre, in spite of*. The resolution of the above sentences is obvious. "The ship was well manned, *yet* it was lost." *Yet* is the verb *get*, and has here the force of *although, grant*. "The ship was well manned, *yet* (or got, that being got, had, granted) it was lost." The ship was well manned, *still*, it was lost." *Still* is part of an obsolete verb, *to put, to fix, to establish*. "The ship was well manned, *still* (that put, that supposed) it was lost."

A few more cases will exemplify all that is material in the marking power of the conjunctions.

“ We study, *that*, we may be learned.” The connexion here, again, is that of cause and effect. “ We study :” “ We may be learned,” are the two predications, between which the connexion in question is to be marked. The demonstrative pronoun performs the service. “ We may be learned, *that* we study :” we study ; what ? to be learned.

“ John is more learned than James is eloquent.” The conjunction here is a relative term, and consists of the *two* words, *more than*. The two predications are, “ John is learned,” “ James is eloquent.” The connexion between them is, that they are the two parts of a comparison turning upon the point of greatness in degree. The two words *more than*, suffice to mark that connexion. *Than* is but a mode of spelling and pronouncing *that*, which use has appropriated to this particular case. “ John is learned, more than (that being the more, the other of course is the less), James is eloquent.”

*As*, obsolete as a pronoun, only exists as a conjunction. It is a word of the same import with *that*. The following will suffice in exemplification of the marking property which it retains. “ Virgil was *as* great a poet as Cicero an orator.” The two predications are,

“Virgil was a great poet,” “Cicero was a great orator.” They also are connected as the two parts of a comparison, turning upon the point of equality in degree. *As*, or *that*, suffices to mark that connexion. “Virgil was a great poet,” *that* (namely great) Cicero was an orator. We shall see afterwards, in the composition of RELATIVE TERMS, that every such term consists of two words, or the same word taken twice. The conjunction here is a relative term, and consists of two words, namely, *as*, or *that*, taken twice. “Virgil was a poet great, that that, an orator was Cicero;” the first *that*, marking *great as poet*; the second *that*, marking *great as orator*.



## CHAPTER V.

## CONSCIOUSNESS.

“ It is not easy for the Mind to put off those confused notions and prejudices it has imbibed from custom, inadvertency, and common conversation. It requires pains and assiduity to examine its ideas, till it resolves them into those clear and distinct simple ones out of which they are compounded ; and to see which, amongst its simple ones, have or have not a necessary connexion and dependence one upon another. Till a man doth this in the primary and original notions of things, he builds upon floating and uncertain principles, and will often find himself at a loss.”—*Locke, Hum. Und. b. ii. c. 13. s. 28.*

IT will now be instructive to retrace our steps, to look back upon the space we have passed, and contemplate the progress we have made toward our journey's end.

We have become acquainted with the elementary feelings of our nature; *first*, those derived immediately from our bodies, whether by impressions made on the surface of them, or unseen causes operating on them within ; *secondly*, the feelings which, after the above mentioned feelings have

ceased, are capable of existing as copies or representatives of them.

We have also observed the manner in which those *secondary* Feelings, to which we have given the name of IDEAS, flow, either into *groups*, or into *trains*. And we have explored the system of contrivances, to which mankind have had recourse, for MARKING those feelings, and the trains of them ; so as either to fix the knowledge of them for one's own use, or to make communication of them to others.

In what has been thus already presented, it will be seen that several expositions of considerable importance are included.

Sensations, and Ideas, are both feelings. When we have a sensation we feel, or have a feeling ; when we have an idea we feel, or have a feeling.

Having a SENSATION, and having a feeling, are not two things. The thing is one, the names only are two. I am pricked by a pin. The sensation is one ; but I may call it sensation, or a feeling, or a pain, as I please. Now, when, having the sensation, I say I feel the sensation, I only use a tautological expression : the sensation is not one thing, the feeling another ; the sensation is the feeling. When, instead of the word feeling, I use the word conscious, I do exactly the same thing, I merely use a tautological expression. To say I feel a sensation, is merely to say I feel a feeling ; which is an impropriety

of speech. And to say I am conscious of a feeling, is merely to say that I feel it. To have a feeling is to be conscious; and to be conscious is to have a feeling. To be conscious of the prick of the pin, is merely to have the sensation. And though I have these various modes of naming my sensation, by saying, I feel the prick of a pin, I feel the pain of a prick, I have the sensation of a prick, I have the feeling of a prick, I am conscious of the feeling; the thing named in all these various ways is one and the same.

The same explanation will easily be seen to apply to IDEAS. Though, at present, I have not the sensation, called the prick of a pin, I have a distinct idea of it. The having an idea, and the not having it, are distinguished by the existence or non-existence of a certain feeling. To have an idea, and the feeling of that idea, are not two things; they are one and the same thing. To feel an idea, and to be conscious of that feeling, are not two things; the feeling and the consciousness are but two names for the same thing. In the very word feeling all that is implied in the word Consciousness is involved.

Those philosophers, therefore, who have spoken of Consciousness as a feeling, distinct from all other feelings, committed a mistake, and one, the evil consequences of which have been most important; for, by combining a chimerical ingredient with the elements of thought, they involved their in-

quiries in confusion and mystery, from the very commencement.

It is easy to see what is the nature of the terms CONSCIOUS, and CONSCIOUSNESS, and what is the marking function which they are destined to perform. It was of great importance, for the purpose of naming, that we should not only have names to distinguish the different classes of our feelings, but also a name applicable equally to all those classes. This purpose is answered by the concrete term Conscious; and the abstract of it, Consciousness. Thus, if we are in any way sentient; that is, have any of the feelings whatsoever of a living creature; the word Conscious is applicable to the feeler, and Consciousness to the feeling: that is to say, the words are *GENERICAL marks*, under which all the names of the subordinate classes of the feelings of a sentient creature are included. When I smell a rose, I am conscious; when I have the idea of a fire, I am conscious; when I remember, I am conscious; when I reason, and when I believe, I am conscious; but believing, and being conscious of belief, are not two things, they are the same thing; though this same thing I can name, at one time without the aid of the generical mark, while at another time it suits me to employ the generical mark.

## CHAPTER VI.

## CONCEPTION.

“ The generalizations of language are already made for us, before we have ourselves begun to generalize ; and our mind receives the abstract phrases without any definite analysis, almost as readily as it receives and adopts the simple names of persons and things. The separate co-existing phenomena, and the separate sequences of a long succession of words, which it has been found convenient to comprehend in a single word, are hence, from the constant use of that single word, regarded by the mind almost in the same manner, as if they were only one phenomenon, or one event.”—*Inquiry into the Relation of Cause and Effect.* By Thomas Brown, M. D. Note M, p. 567.

THE philosophers, who erected CONSCIOUSNESS into what they called a Power of the mind, have bestowed the same rank upon CONCEPTION.

When we have a Sensation, we are not said, in the ordinary use of the word, to Conceive. If burned with the candle, I do not say, “ I conceive the pain ;” I do not say, if I smell putrescence, that “ I conceive the stench.” It even seems to be not without a sort of impropriety, if the term is ever applied to mark a simple Idea. We should



not, in ordinary language, say, "I conceive red," "I conceive green." We say, however, "I conceive a horse," "I conceive a tree," "I conceive a ship;" we say also, "I conceive an argument," "I conceive a plan." In these examples, which may be taken as a sufficient specimen of the manner in which the term Conception is used, we see that it is applied exclusively to cases of the secondary feelings; to the Idea, not the Sensation; and to the case of compound, not of single ideas. With this use, the etymology of the word very accurately corresponds: I conceive, that is, *I take together*, a horse; that is, the several ideas, combined under the name horse, and constituting a compound idea. The term conception, we have seen, applies not only to those combinations of ideas, which we call the ideas of external objects, but to those combinations which the mind makes for its own purposes.

It thus appears, that the word CONCEPTION is a *generical* name, like CONSCIOUSNESS; but less comprehensive. We call ourselves conscious, when we have any sensation, or any idea. We say that we conceive, only when we have some complex idea. It remains to be inquired, whether by saying we conceive, or have a conception, we mean any thing whatsoever beside having an idea.

If I say, I have the idea of a horse, I can explain distinctly what I mean. I have the ideas of

the sensations of sight, of touch, of hearing, of smelling, with which the body and actions of a horse have impressed me; these ideas, all combined, and so closely, that their existence appears simultaneous, and one. This is my IDEA of a horse. If I say, I have a CONCEPTION of a horse, and am asked to explain what I mean, I give the same account exactly, and I can give no other. My CONCEPTION of the horse, is merely my taking together, in one, the simple ideas of the sensations which constitute my knowledge of the horse; and my IDEA of the horse is the same thing.

We may notice here, however, one of those curious illusions, which the intimate associations of ideas with words, so often, and sometimes so inconveniently, occasion. The term "I conceive," has the form of an active verb; and with *the form of an active verb* THE IDEA OF ACTION is so frequently conjoined, that we are rarely able to separate them. By this means, the idea of activeness is often mixed up with other ideas, when it is wholly misplaced and illusive. I use the same form of expression when I say, I dream; as when I say, I study, I argue, I imagine. In these cases the idea of what I call activity is properly included: in the expression I dream, it is not properly included; though the active form of the verb so invariably calls up a certain idea of activity, and so strongly tends to mix it with the

other ideas, that in using the term, "I dream," we seem to consider ourselves as, somehow, agents. Even in using the term, "I die," we cannot escape the illusion; though the ideas are so highly incongruous. It would be obviously absurd to affirm that we are less active when we say we have an idea, than when we say we have a conception, yet there is constantly a feeling, when we use the phrase "I conceive," as if we were in some manner active; and no such feeling, when we use the phrase "I have an idea." The terms, therefore, the concrete "conceive," and its abstract "conception," are somewhat inconvenient, and misleading, as they infuse into the complex ideas to which they are applied, an ingredient which does not belong to them.

The relation which the words, CONSCIOUSNESS, and CONCEPTION, bear to one another, is now, therefore, apparent. Consciousness is the more *generical* of the two names. Conception is the name of a class *included under* the name Consciousness. Consciousness applies to sensations, and to ideas, whether simple or complex; to all the feelings, whatsoever they may be, of our sentient nature. Conception applies only to ideas; and to ideas, only in a state of combination. It is a generical name including the several classes of complex ideas.

## CHAPTER VII.

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IMAGINATION.

THE IMAGINATION is another term, the explanation of which will be found to be included in the expositions which have previously been given.

The phenomena classed under this title are explained, by modern Philosophers, on the principles of Association. Their accounts of the mental process, to which the name Imagination is applied, include their explanation of the laws of Association, or the manner in which ideas succeed one another in a train, with little else, except remarks on the causes to which diversity in the several kinds of Imagination may be traced.

It is not to be overlooked that the term IMAGINATION is here used in the sense which is given to it by philosophers when they rank it as a particular power of the mind ; for it is no doubt true, that it is often used, in vulgar speech, as synony-

mous with Conception, and with Supposition, and with Conjecture; as the verb, to imagine, is, with the verbs, to discover, to suppose, conjecture, believe, and perhaps others.

We have seen that Consciousness, and Conception, are names of feelings, *taken one by one*: Consciousness of *any* of our feelings so taken; Conception of *a particular class* of them, namely, complex ideas. IMAGINATION is not a name of any one idea. I am not said to imagine, unless I combine ideas successively in a less or greater number. An imagination, therefore, is the name of a *train*. I am said to have an imagination when I have a train of ideas; and when I am said to imagine, I have the same thing; nor is there any train of ideas, to which the term imagination may not be applied.

In this comprehensive meaning of the word Imagination, there is no man who has not Imagination, and no man who has it not in an equal degree with any other. Every man imagines, nay, is constantly, and unavoidably, imagining. He cannot help imagining. He can no more stop the current of his ideas, than he can stop the current of his blood.

In the phrase we have just employed, "there is no man who has not imagination," it is meant, that there is no man who now has not, who has not always had, and who will not always have a train of ideas. Imagination, therefore, is a word connot-



ing *indefinite time*; it is, to use the language of the Greek grammarians, aoristical. When it connotes, which by the strain of the passage it may be made to do, a *particular time*, it marks a *particular train*. When it connotes *time indefinitely*, it marks *trains indefinitely*, any train at any time.

The having or doing a thing at any time, means the potentiality of having or doing it. Imagination, then, has two meanings. It means either some one train, or the potentiality of a train. These are two meanings which it is very necessary not to confound.

There is great diversity of trains. Not only has the same individual an endless variety of trains; but a different character belongs to the whole series of trains which pass through the minds of different individuals or classes of individuals. The different pursuits in which the several classes of men are engaged, render particular trains of ideas more common to them than other trains. One man is a merchant; and trains respecting the goods in which he deals, the markets in which he buys, and those in which he sells, are habitual in his mind. Another man is a lawyer, and ideas of clients, and fees, and judges, and witnesses, and legal instruments, and points of contestation, and the practice of his court, are habitually passing in his mind. Ideas of another kind occupy the mind of the physician; of another kind still, the mind of the war-

rior. The statesman is occupied with a train different from that of any of the classes that have been mentioned; and one statesman with a very different train from another, according as his mind is running upon expedients which may serve the purpose of the day, or arrangement which may secure the happiness of the population from generation to generation. A peculiar character belongs to the train which habitually occupies the mind of the mathematician. The mind of the metaphysician is also occupied by a train distinguished from that of other classes. And there is one man, yet to be mentioned, the poet, the peculiarity of whose trains has been a subject of particular observation. To such a degree, indeed, have the trains of the poet been singled out for distinction, that the word *Imagination*, in a more restricted sense, is appropriated to them. We do not call the trains of the lawyer, or the trains of the merchant, *imagination*. We do not speak of them as *imagining*, when they are revolving, each, the ideas which belong to his peculiar occupation; it is only to the poet, that the epithet of *imagining* is applied. His trains, or trains analogous to his, are those which receive the name of *Imagination*.

It is then a question, to which we should find an answer, whether, in that by which the trains of the poet differ from the trains of other men, there be any thing which, being wholly absent

from that by which the trains of other classes are distinguished, lays a foundation for this peculiarity of naming.

The trains of one class differ from those of another, the trains of the merchant, for example, from those of the lawyer, not in this, that the ideas follow one another by any other law, in the mind of the one, and the mind of the other; they follow by the same laws exactly; and are equally composed of ideas, mixed indeed with sensations, in the minds of both. The difference consists in this, that the ideas which flow in their minds, and compose their trains, are ideas of different things. The ideas of the lawyer are ideas of the legal provisions, forms, and distinctions, and of the actions, bodily, and mental, about which he is conversant. The ideas of the merchant are equally ideas of the objects and operations, about which he is concerned, and the ends toward which his actions are directed; but the objects and operations themselves, are remarkably different. The trains of poets, also, do not differ from the trains of other men, but perfectly agree with them, in this, that they are composed of ideas, and that those ideas succeed one another, according to the same laws, in their, and in other minds. They are ideas, however, of very different things. The ideas of the poet are ideas of all that is most lovely and striking in the visible appearances of nature, and of all that is most interesting in the actions and affections of

human beings. It thus, however, appears most manifestly, that the trains of poets differ from those of other men in no other way, than those of other men differ from one another; that they differ from them by this only, that the ideas of which they are composed, are ideas of different things. There is also nothing surprising in this, that, being trains of pleasurable ideas, they should have attracted a peculiar degree of attention; and in an early age, when poetry was the only literature, should have been thought worthy of a more particular naming, than the trains of any other class. These reasons seem to account for a sort of appropriation of the name Imagination, to the trains of the poet. An additional reason may be seen in another circumstance, which also affords an interesting illustration of a law of association already propounded; namely, the obscuration of the antecedent part of a train, which leads to a subsequent, more interesting than itself. In the case of the lawyer, the train leads to a decision favourable to the side which he advocates. The train has nothing pleasurable in itself. The pleasure is all derived from the end. The same is the case with the merchant. His trains are directed to a particular end. And it is the end alone, which gives a value to the train. The end of the metaphysical, and the end of the mathematical inquirer, is the discovery of truth: their trains are directed to that object; and are, or are not, a



source of pleasure, as that end is or is not attained. But the case is perfectly different with the poet. His train is its own end. It is all delightful, or the purpose is frustrate. From the established laws of association, this consequence unavoidably followed ; that, in the case of the trains of those other classes, the interest of which was concentrated in the end, attention was withdrawn from the train by being fixed upon the end ; that in the case of the poet, on the other hand, the train itself being the only object, and that pleasurable, the attention was wholly fixed upon the train ; that hence the train of the poet was provided with a name ; that in the cases of the trains of other men, where the end only was interesting, it was thought enough that the end itself should be named, the train was neglected.

In conformity with this observation, we find that wherever there is a train which leads to nothing beyond itself, and has any pretension to the character of pleasurable (the various kinds of reverie, for example), it is allowed the name of Imagination. Thus we say that Rousseau indulged his imagination, when, as he himself describes it, lying on his back, in his boat, on the little lake of Vienne, he delivered himself up for hours to trains, of which, he says, the pleasure surpassed every other enjoyment.

Professor Dugald Stewart has given to the word Imagination, a technical meaning ; without,



as it appears to me, any corresponding advantage. He confines it to the cases in which the mind forms new combinations; or, as he calls them, creations; that is, to cases in which the ideas which compose the train do not come together in the same combinations in which sensations had ever been received. But this is no specific difference. This happens, in every train of any considerable length, whether directed to any end, or not so directed. It is implied in every wish of the child to fly, or to jump over the house; in a large proportion of all his playful expressions, as puss in boots, a hog in armour, a monkey preaching, and so on. It is manifested in perfection in every dream. It is well known that, for the discovery of truths in philosophy, there is a demand for new trains of thought, multitudes of which pass in review before the mind, are contemplated, and rejected, before the happy combination is attained, in which the discovery is involved. If imagination consists in bringing trains before the mind involving a number of new combinations, imagination is probably more the occupation of the philosopher than of the poet.

Mr. Stewart appears not to have understood the real distinction between the use of the words Conception, and Imagination; that the one is the name of a single idea, the other that of a train. He also involves, without seeming to be wholly aware of it, the idea of a train destined to a

particular end in the meaning which he bestows on the word Imagination. Imagination is with him, not the name of a train having merely new combinations, but of a train having new combinations, and those destined to some end. But this is not more the character of the trains which belong to the painter and the poet, as his language appears to imply, than it is of the lawyer, or the metaphysician ; or, indeed, the professors of many of the vulgar arts ; the tailor, for example, and the mantua-maker.

## CHAPTER VIII.

## CLASSIFICATION.

“ Dans l’ordre historique, la philosophie transcendante a devancé la philosophie élémentaire. Il ne faut point s’en étonner ; les grandes problèmes de la métaphysique et de la morale se présentent à l’homme, dans l’enfance même de son intelligence, avec une grandeur et une obscurité qui le séduisent et qui l’attirent. L’homme, qui se sent fait pour connoître, court d’abord à la vérité avec plus d’ardeur que de sagesse ; il cherche à deviner ce qu’il ne peut comprendre, et se perd dans des conjectures absurdes ou téméraires. Les théogonies et les cosmogonies sont antérieures à la saine physique, et l’esprit humain a passé à travers toutes les agitations et les délires de la métaphysique transcendante, avant d’arriver à la psychologie.”—*Cousin, Frag. Philos.* p. 75.

THE process by which we connect what we call the objects of our senses, and also our ideas, into certain aggregates called classes, is of too much importance not to have attracted the attention of those who have engaged in the study of mind. Yet it is doubtful, whether metaphysicians have regarded CLASSIFICATION as an original power of the mind, or have allowed that what is included under that name might be resolved into simpler elements. The term Abstraction, I think, they have

generally taken as the name of a distinct, and original, power, not susceptible of further analysis. But, in doing so, it seems (for the language of writers is too loose on this subject, to allow us the use of more affirmative terms), they have restricted the name to the power of forming such ideas as are represented by the terms, hardness, softness, length, breadth, space, and so on. And this operation they rather consider as subservient to classification, than as that operation itself. The process, however, of grouping individuals into classes, has been regarded as sufficiently mysterious. The nature of it has been the object of deep curiosity; and the erroneous opinions which were entertained of it bewildered, for many ages, the most eminent philosophers; and enfeebled the human mind.

What (it was inquired) is that which is really done by the mind, when it forms individuals into classes; separates such and such things from others, and regards them, under a certain idea of unity, as something by themselves? Why is the segregation thought of? And for what end is it made? These questions all received answers; but it was many ages before they received an answer approaching the truth; and it is only necessary to read with care the writings of Plato and of Aristotle, and of all philosophers, with very few exceptions, from theirs to the present time, to see, that a misunderstanding of the nature

of General Terms is that which chiefly perplexed them in their inquiries, and involved them in a confusion, which was inextricable, so long as those terms were unexplained.

The process in forming those classes was said to be this. The Mind leaves out of its view this, and that, and the other thing, in which individuals differ from one another; and retaining only those in which they all agree, it forms them into a class. But what is this forming of a class? What does it mean? When I form a material aggregate; when I collect a library; when I build a house; when I even raise a heap of stones; I move the things, whatever they may be, and place them, either regularly or irregularly, in a mass together. But when I form a class, I perform no operation of this sort. I touch not, nor do I in any way whatsoever act upon the individuals which I class. The proceeding is all mental. Forming a class of individuals, is a mode of regarding them. But what is meant by a mode of regarding things? This is mysterious; and is as mysteriously explained, when it is said to be the taking into view the particulars in which individuals agree. For what is there, which it is possible for the mind to take into view, in that in which individuals agree? Every colour is an individual colour, every size is an individual size, every shape is an individual shape. But things have



no individual colour in common, no individual shape in common, no individual size in common; that is to say, they have neither shape, colour, nor size in common. What, then, is it which they have in common, which the mind can take into view? Those who affirmed that it was something, could by no means tell. They substituted words for things; using vague and mystical phrases, which, when examined, meant nothing. Plato called it *ιδεα*, Aristotle, *ειδος*, both, words taken from the verb to see; intimating, something as it were seen, or viewed, as we call it. At bottom, Aristotle's *ειδος*, is the same with Plato's *ιδεα*, though Aristotle makes a great affair of some very trifling differences, which he creates and sets up between them. The Latins, translated both *ιδεα*, and *ειδος*, by the same words, and were very much at a loss for one to answer the purpose; they used *species*, derived in like manner from a verb to see, but which, having other meanings, was ill adapted for a scientific word; they brought, therefore, another word in aid, *forma*, the same with *οραμα*, derived equally from a verb signifying to see, which suited the purpose just as imperfectly as *species*; and as writers used both terms, according as the one or the other appeared best to correspond with their meaning, they thickened by this means the confusion.

After a time, unfortunately a long time, it began to be perceived, that what was thus represented

as the object of the mind in the formation of classes, was chimerical and absurd ; when a set of inquirers appeared, who denied the existence of all such objects, affirmed that ideas were all individual, and that nothing was general but names. The question rose to the dignity of a controversy ; and to the hateful violence of a religious controversy. They who affirmed the existence of general ideas were called Realists, they who denied their existence Nominalists. There can be no doubt, that of the two the Nominalists approached, by far, the nearest to the truth ; and their speculations tended strongly to remove from mental science the confusion in which the total misapprehension of abstract terms had involved it. But the clergy brought religion into the quarrel, and as usual on the wrong side. Realism was preached as the doctrine which alone was consistent with orthodoxy ; the Nominalists were hunted down ; and persecution, well knowing her object, clung to the books as well as the men ; so that the books of the Nominalists, though the art of printing tended strongly to preserve them, were suppressed and destroyed, to such a degree, that it is now exceedingly difficult to collect them ; and not easy to obtain copies even of the most remarkable.

The opinion, that the particulars in which the individuals of a class agree were distinct Objects of the Mind, soon made them distinct EXISTENCES ;

they were the Essence of things ; the Eternal Exemplars, according to which individual things were made ; they were called UNIVERSALS, and regarded as alone the Objects of the Intellect. They were invariable, always the same ; individuals, not the objects of intellect but only the low objects of sense, were in perpetual flux, and never, for any considerable period, the same. Universals alone had Unity ; they alone were the subject of science ; Individuals were innumerable, every one different from another ; and cognoscible only by the lower, the sensitive part of our nature.

Endless were the subtleties into which ingenious men were misled, in the contemplation of those Fictions ; and wonderful were the attributes which they bestowed upon them. “ It is, then, on these *permanent* Phantasms,” says Mr. Harris, copying the ancient philosophers, “ that the human mind first works, and by an energy as spontaneous and familiar to its nature, as the seeing of colour is familiar to the eye, it discerns at once what in MANY IS ONE ; what in things DISSIMILAR and DIFFERENT is SIMILAR and the SAME. By this it comes to behold a kind of *superior* Objects ; a new Race of Perceptions, more comprehensive than those of sense ; a Race of Perceptions, *each one of which, may be found entire and whole in the separate individuals of an infinite and fleeting multitude, without departing from the unity and permanence of its*

*own nature.*"\* Here we have something sufficiently mystical ; a thing which is, at once, ONE, and MANY ; which is ONE, it seems, by its very nature, and yet may exist, *entire and whole*, in the separate *individuals* of an infinite MULTITUDE. This is a *specimen* of their Doctrine ; a specimen of what they call THE SUBLIME in Intellection.

But this is not all. For as, when we form a minor class, as *man*, there is a certain ONE, the object of intellect, complete in every individual ; MANY, therefore, and at the same time, ONE ; so when we form a larger class, *animal*, there is a certain ONE, the object of intellect, complete in every one of those individuals. And when we go still higher, as to the grand class, BODY, there is always a ONE, the object of intellect, complete in every one of those more numerous individuals. When we mount up to the very summit, and embrace all things in one class, BEING, there is in like manner a ONE, the object of intellect, complete in every individual that exists. This is the grand ONE ; the ONE pre-eminently. This is *the* ONE ; τὸ εἷν ; ONE-NESS ; ONE in the abstract. This was a conception deemed truly SUBLIME. The loftiest epithets were bestowed upon τὸ εἷν, *the* ONE. It was DIVINE ; it was more than that ; for being not concrete, but abstract, it was DIVINITY. All things were contained in *the* ONE ; and *the* ONE

\* Hermes, b. iii. ch. 4.



was in all things. *The ONE* was the source and principle of Being. It was immutable, eternal.

These ONES they also called by the names of *Internal Forms*, and *Intelligible Forms*. Thus Harris : “ Let us suppose any man to look for the first time upon *some Work of Art* ; as, for example, upon a Clock ; and, having sufficiently viewed it, at length to depart. Would he not retain, when absent, an Idea of what he had seen ? And what is it, *to retain such Idea* ? *It is to have A FORM INTERNAL correspondent to THE EXTERNAL* ; only with this difference, that the *Internal Form is devoid of the Matter* ; the *External is united with it*, being seen in the metal, the wood, and the like. Now, if we suppose this Spectator to view *many such Machines*, and not simply to view, but to consider every part of them, so as to comprehend how those parts all operate to one End, he might be then said to possess a kind of INTELLIGIBLE FORM, by which he would not only understand and know the clocks, which he had seen *already*, but every Work, also, of like Sort, which he might see *hereafter*.”

We might here remark upon the mystical jargon, which is thus employed to obscure the simple fact, that after a man has seen an individual of a particular kind he has the idea of that individual ; and after he has seen various individuals of the same kind, he has ideas of the various



individuals, and has them combined by association. But we must hear Mr. Harris a little further.

After telling us that there are two orders of these *immutable* INTELLIGIBLE FORMS ; *one* belonging to the Contemplator of objects, and subsequent to their existence ; *another* belonging to the Maker of them, being the archetype, according to which they were formed ; he thus proceeds : “ THE WHOLE VISIBLE WORLD, exhibits nothing more than so many passing pictures of these IMMUTABLE ARCHETYPES. Nay, through these it attains even a Semblance of Immortality, and continues throughout ages to be SPECIFICALLY ONE, amid those infinite particular changes, that befall it every moment. May we be allowed then to credit those speculative men, who tell us, *it is in these permanent and comprehensive FORMS that the DEITY views at once, without looking abroad, all possible productions both present, past, and future ; that this great and stupendous view is but a view of himself, where all things lie enveloped in their Principles and Exemplars, as being essential to the fulness of this universal Intellection ?*”

I shall exhibit but one other specimen of the mode of speculating about these imaginary Beings, from another great master of the ancient philosophy, Cudworth. Both Aristotle and Plato, he says, “ acknowledged two sorts of Entities,

the one mutable, or subject to flux and motion, such as are especially individual corporeal things ; the other immutable, that always rest or stand still, which are the proper objects of certain, constant, and immutable knowledge, that therefore cannot be mere nothings, non-entities.

“ Which latter kind of being, that is, the immutable essence, as a distinct thing from individual sensibles, Aristotle plainly asserts against Heraclitus, and those other flowing philosophers in these words ; ‘ We would have these philosophers to know, that besides sensible things that are always mutable, there is another kind of being or entity of such things as are neither subject to motion, corruption, nor generation.’ And elsewhere he tells us, that this immoveable essence is the object of theoretical knowledge, of the first philosophy, and of the pure mathematics.

“ Now these immutable entities are the universal *rationes*, or intelligible natures and essences of all things, which some compare to unities, but Aristotle to numbers ; which formally considered, are indivisible : saith he, ‘ The essences of things are like to numbers ;’ because if but the least thing be added to any number, or substracted from it, the number is destroyed.

“ And these are the objects of all certain knowledge. As for example, the objects of geometry are not any individual material triangles, squares, circles, pyramids, cubes, spheres, and the like ;

which because they are 'always mutable, nothing can be immutably affirmed of them; but they are those indivisible and unchangeable *rationes* of a triangle, square, circle; which are ever the same to all geometricians, in all ages and places, of which such immutable theorems as these are demonstrated, as that a triangle has necessarily three angles equal to two right angles.

“But if any one demand here, where this ἀκίνητος ἐστίαι, these immutable entities do exist? I answer, first, that as they are considered formally, they do not properly exist in the individuals without us, as if they were from them imprinted upon the understanding, which some have taken to be Aristotle's opinion; because no individual material thing is either universal or immutable. And if these things were only lodged in the individual sensibles, then they would be unavoidably obnoxious to the fluctuating waves of the same reciprocating Euripus, in which all individual material things are perpetually whirled. But because they perish not together with them, it is a certain argument that they exist independently upon them. Neither in the next place, do they exist somewhere else apart from the individual sensibles, and without the mind, which is that opinion that Aristotle justly condemns, but either unjustly or unskilfully attributes to Plato. For if the mind looked abroad for its objects wholly without itself, then all its knowledge would be

nothing but sense and passion. For to know a thing is nothing else but to comprehend it by some inward ideas that are domestic to the mind, and actively exerted from it. Wherefore these intelligible ideas or essences of things, those forms by which we understand all things, exist no where but in the mind itself; for it was very well determined long ago by Socrates, in Plato's Parmenides, that these things are nothing but *noëmata*: 'these species or ideas are all of them nothing but *noëmata*, or notions that exist no where but in the soul itself.' Wherefore, to say that there are immutable natures and essences, and rationes of things, distinct from the individuals that exist without us, is all one as if one should say, that there is in the universe above the orb of matter and body, another superior orb of intellectual being, that comprehends its own immediate objects, that is, the immutable *rationes* and ideas of things within itself, by which it understands and knows all things without itself.

“And yet notwithstanding though these things exist only in the mind, they are not therefore mere figments of the understanding: for if the subjects of all scientific theorems were nothing but figments, then all truth and knowledge that is built upon them would be a mere fictitious thing; and if truth itself, and the intellectual nature be fictitious things, then what can be real or solid in the world? But it is evident, that though the mind thinks of these things at pleasure, yet they are



not arbitrarily framed by the mind, but have certain, determinate, and immutable natures of their own, which are independent upon the mind, and which are not blown away into nothing at the pleasure of the same being that arbitrarily made them.

“ But we all naturally conceive that those things have not only an eternal, but also a necessary existence, so that they could not ever but be, such and so many as they are, and can never possibly perish or cease to be, but are absolutely undestroyable.

“ Which is a thing frequently acknowledged in the writings of both those famous philosophers, Plato and Aristotle. The former of them calling those things, ‘ things that were never made, but always are,’ and ‘ things that were never made, nor can be destroyed.’ ‘ Things ingenerable and unperishable ;’ *Quæ* Plato *negat gigni sed semper esse* (as Tully expresseth it) *et ratione et intelligentia contineri*. And Philo the Platonical Jew, calls the τὰ Νοητὰ, which are the same things we speak of, ἀναγκαιόταται εἴσεις, the most necessary essences, that is, such things as could not but be, and cannot possibly not be. And Aristotle himself calls the *rationes* of things in his metaphysics, not only χωριστὰ and ἀκίνητα, things separate from matter and immutable, but also αἰδία, or eternal ; and in his ethics likewise, he calls geometrical truths αἰδία, eternal things, l. 3, c. 5 ; ‘ where



he makes the geometrical truth concerning the incommensurability betwixt the diameter and the side of a square, to be an eternal thing.' Elsewhere he tells us, that 'Science, properly so called, is not of things corruptible and contingent,' but of things necessary, incorruptible and eternal. Which immutable and eternal objects of science, in the place before quoted, he described thus: 'Such a kind of entity of things has neither motion nor generation, nor corruption,' that is, such things as were never made, and can never be destroyed. To which, he saith, the mind is necessarily determined. For science or knowledge has nothing either of fiction or of arbitrariness in it, but is 'the comprehension of that which immutably is.'

" Moreover, these things have a constant being, when our particular created minds do not actually think of them, and therefore they are immutable in another sense likewise, not only because they are indivisibly the same when we think of them, but also because they have a constant and never-failing entity; and always are, whether our particular minds think of them or not. For the intelligible natures and essences of a triangle, square, circle, pyramid, cube, sphere, &c., and all the necessary geometrical verities belonging to these several figures, were not the creatures of Archimedes, Euclid, or Pythagoras, or any other inventors of Geometry; nor did then

first begin to be ; but all these *rationales* and verities had a real and actual entity before, and would continue still, though all the geometricians in the world were quite extinct, and no man knew them or thought of them. Nay, though all the material world were quite swept away, and also all particular created minds annihilated together with it ; yet there is no doubt but the intelligible natures or essences of all geometrical figures, and the necessary verities belonging to them, would notwithstanding remain safe and sound. Wherefore these things had a being also before the material world and all particular intellects were created. For it is not at all conceivable, that ever there was a time when there was no intelligible nature of a triangle, nor any such thing cogitable at all, and when it was not yet actually true that a triangle has three angles equal to two right angles, but that these things were afterward arbitrarily made and brought into being out of an antecedent nothing or non-entity ; so that the being of them bore some certain date, and had a youngness in them, and so by the same reason might wax old, and decay again ; which notion he often harps upon, when he speaks of the *Ἔιδη*, or forms of things, as when he says, ‘ there is no generation of the essence of a sphere,’ that is, it is a thing that is not made ; but always is : and elsewhere he pronounces universally of the *Ἔιδη*, ‘ The forms of material things are without generation and

corruption,' and 'that none makes the form of any thing, for it is never generated.' Divers have censured Aristotle in some of such passages too much to confound physics and metaphysics together ; for indeed these things are not true in a physical, but only in a metaphysical sense. That is, the immediate objects of intellection and science, are eternal, necessarily existent, and incorruptible." \*

Under the influence of such notions as these, men were led away from the real object of Classification ; which remained, till a late period in metaphysical inquiry, not at all understood. Yet the truth appears by no means difficult to find, if we only observe the steps, by which the mind acquires its knowledge, and the exigencies which give occasion to the contrivances to which it resorts.

Man first becomes acquainted with individuals. He first names individuals. But individuals are innumerable, and he cannot have innumerable names. He must make one name serve for many individuals. It is thus obvious, and certain, that men were led to class solely for the purpose of economizing in the use of names. Could the processes of naming and discourse have been as conveniently managed by a name for every individual, the names of classes, and the idea of classification, would never have existed. But as the limits of

\* "A Treatise concerning Eternal and Immutable Morality. By Ralph Cudworth, D. D."—pp. 241—250.

the human memory did not enable men to retain beyond a very limited number of names ; and even if it had, as it would have required a most inconvenient portion of time, to run over in discourse, as many names of individuals, and of individual qualities, as there is occasion to refer to in discourse, it was necessary to have contrivances of abridgment ; that is, to employ names which marked equally a number of individuals, with all their separate properties ; and enabled us to speak of multitudes at once.

It was impossible that this process should not be involved in obscurity, and liable to great misapprehension, so long as the manner, in which words become significant, was unexplained. After this knowledge was imparted, and pretty generally diffused, the value of it seemed for a long time to be little understood.

Words become significant purely by association. A word is pronounced in conjunction with an idea ; it is pronounced again and again ; and, by degrees, the idea and the word become so associated, that the one can never occur without the other. To take first the example of an individual object. The word, St. Paul's, has been so often named in conjunction with the idea of a particular building, that the word, St. Paul's, never occurs without calling up the idea of the building, nor the idea of the building without calling up the name, St. Paul's. The effect of association is similarly exemplified in connecting the visible mark with



the audible. Children learn first to speak. They learn next to read. In learning to speak, they associate the audible mark with their sensations and ideas; the sound tree is associated with the sight of the tree, or the idea of the tree. In learning to read, a new association has to be formed. The *written word* is a *visible* sign of the *audible* sign. What reading accomplishes, by degrees, is, to associate the visible sign so closely with the audible, that at the same instant with the sight of the word the sound of it, and with the sound of it the sense, occurs.

After the explanations which have been already given, no difficulty can remain about the manner in which names come to signify the *individuals* of which they are appointed to be the marks.

Let us now, proceeding to the simplest cases first, and by them expounding such as are more complicated, suppose that our name of one individual is applied to another individual. Let us suppose that the word, foot, has been first associated in the mind of the child with one foot only; it will in that case call up the idea of that one, and not of the other. Here is one name, and one thing named. Suppose next, that the same name, foot, begins to be applied to the child's other foot. The sound is now associated not constantly with one thing, but sometimes with one thing, and sometimes with another. The consequence is, that it calls up sometimes the one, and sometimes



the other. Here two things, the two feet, are both of them associated with one thing, the name. The one thing, the name, has the power of calling up both, and in rapid succession. The word foot suggests the idea of one of the feet; this foot with its name, is a complex idea; and this complex idea suggests its like, the other foot with its name.

This is a peculiar and a highly important case of association; but not the less simple and indisputable. We have already sufficiently exemplified the two grand cases of the formation of complex ideas by association;—that in which the ideas of synchronous sensations are so concentered by constant conjunction as to appear, though numerous, only one; of which the ideas of sensible objects, a rose, a plough, a house, a ship, are examples;—and that in which the ideas of successive sensations are so concentered; of which, the idea of a tune in music, the idea of the revolution of a wheel, of a walk, a hunt, a horse-race, are instances.

It is easy to see wherein the present case agrees with, and wherein it differs from, those familiar cases. The word, man, we shall say, is first applied to an individual; it is first associated with the idea of that individual, and acquires the power of calling up the idea of him; it is next applied to another individual, and acquires the power of calling up the idea of him; so of another, and

another, till it has become associated with an indefinite number, and has acquired the power of calling up an indefinite number of those ideas indifferently. What happens? It does call up an indefinite number of the ideas of individuals, as often as it occurs; and calling them up in close connexion, it forms them into a species of complex idea.

There can be no difficulty in admitting that association does form the ideas of an indefinite number of individuals into one complex idea; because it is an acknowledged fact. Have we not the idea of an army? And is not that precisely the ideas of an indefinite number of men formed into one idea? Have we not the idea of a wood, or a forest; and is not that the idea of an indefinite number of trees formed into one idea? These are instances of the concretion of synchronous ideas. Of the concretion of successive ideas indefinite in number, the idea of a concert is one instance, the idea of a discourse is another, the idea of the life of a man is another, the idea of a year, or of a century, is another, and so on. The idea, which is marked by the term "race of man," is complex in both ways, for it is not only the idea of the present generation, but of all successive generations.

It is also a fact, that when an idea becomes to a certain degree complex, from the multiplicity of the ideas it comprehends, it is of necessity indis-

tinct. Thus the idea of a figure of one thousand sides is incurably indistinct ; the idea of an army is also indistinct ; the idea of a forest, or the idea of a mob. And one of the uses of language, is, to enable us, by distinct marks, to speak with distinctness of those combinations of ideas, which, in themselves, are too numerous for distinctness. Thus, by our marks of numbers, we can speak, with the most perfect precision, of a figure not only of a thousand, but of ten thousand sides, and deduce its peculiar properties ; though it is as impossible, by the idea, as by the sensations, to distinguish one of a thousand, from one of a thousand and one, sides.

Thus, when the word man calls up the ideas of an indefinite number of individuals, not only of all those to whom I have individually given the name, but of all those to whom I have in imagination given it or imagine it will ever be given, and forms all those ideas into one,—it is evidently a very complex idea, and, therefore, indistinct ; and this indistinctness has, doubtless, been the main cause of the mystery, which has appeared to belong to it. That this, however, is the process, is an inevitable result of the laws of association.

It thus appears, that the word, man, is not a word having a very simple idea, as was the opinion of the Realists ; nor a word having no idea at all, as was that of the Nominalists ; but a

word calling up an indefinite number of ideas, by the irresistible laws of association, and forming them into one very complex, and indistinct, but not therefore unintelligible, idea.

It is thus to be seen, that appellatives, or general names, are significant, in two modes. We have frequently had occasion to recur to the mode in which the simple ideas of sensation are associated or concreted, so as to form what we call the complex ideas of objects. Thus, I have the complex ideas of this pen, this desk, this room, this man, this handwriting. The simple ideas, so concreted into a complex idea in the case of each individual, are one thing signified by each appellative; and this complex idea of the individual, concreted with another, and another of the same kind, and so on without end, is the other of the things which are signified by it. Thus, the word rose, signifies, first of all, a certain odour, a certain colour, a certain shape, a certain consistence, so associated as to form one idea, that of the individual; next, it signifies this individual associated with another, and another, and another, and so on; in other words, it signifies the class.

The complexity of the idea, in the latter of the two cases, is distinguished by a peculiarity from that of the former. In applying the name to the odour, and colour, and so on, of the rose, concreted into one idea, the name is not the name of each of the sensations taken singly, only of all

taken together. In applying the name to rose, and rose, and rose, without end, the name is at once a name of each of the individuals, and also the name of the complex association which is formed of them. This too, is itself a peculiar association. It is not the association of a name with a number of particulars clustered together as one; but the association of a name with each of an indefinite number of particulars, and all those particulars associated back again with the name.

This peculiarity may require a little further explanation. It is well known, that between an idea, and the name which stands for it, there is a double association. The name calls up the idea in close association, and the idea calls up the name in equally close association; and this they have a tendency to do in a series of repetitions; the name bringing up the idea, the idea the name, and then the name the idea again, and so on, for any number of times. This is, in great part, the way in which language is learned, as we observe by the repetitions to which children are prone. And this, indeed, is what, in many cases, we mean when we speak of dwelling upon an idea. It is a familiar observation, that no idea dwells in the mind, or can; for it has innumerable associations, and whatever association occurs, of course, displaces that by which it is introduced. But if the idea which thus displaces it, again calls it up, and



these two go on calling up one another, that which is the more interesting of the two appears to be that which alone is occupying the attention. This alternation is frequent between the name and the idea.

Now, then, let the word, man, be supposed, first of all, the name of an individual; it becomes associated with the idea of the individual, and acquires the power of calling up that idea. Let us next suppose it applied to one other individual, and no more: it becomes associated with this other idea; and it now has the power of calling up either. The following is, then, a very natural train:—1, The name occurs; 2, the name suggests the idea of one of the individuals; 3, that idea suggests the name back again; 4, the name suggests the idea of the second individual. All this may pass, and, after sufficient repetition, does pass, with the rapidity of lightning. Suppose, now, that the name is associated, with the ideas not of two individuals, but of many; the same train may go on; the name exciting the idea of one individual, that idea the name, the name another individual, and so on, to an indefinite extent; all in that small portion of time of which the mind takes no account. The combination thus formed stands in need of a name. And the name, man, while it is the name of every individual included in the process, is also the

name of the whole combination ; that is, of a very complex idea.

One other question, respecting classification, may still seem to require solution ; namely, what it is by which we are determined in placing such and such things together in a class in preference to others ; what, in other words, is the principle of Classification ? I answer, that, as it is for the purpose of naming, of naming with greater facility, that we form classes at all ; so it is in furtherance of that same facility that such and such things only are included in one class, such and such in another. Experience teaches what sort of grouping answers the purposes of naming best ; under the suggestions of that experience, the application of a general word is tacitly and without much of reflection regulated ; and by this process, and no other, it is, that Classification is performed. It is the aggregation of an indefinite number of individuals, by their association with a particular name.

It may seem that this answer is still very general, and that to make the explanation sufficient, the suggestions by which experience recommends this or that classification should be particularized. For the purpose of the present chapter, however, namely, to shew that the business of Classification is merely a process of naming, and is all resolvable into association, the observation

though general, is full and satisfactory. The detail of the purposes to be answered by general terms belongs more properly to the next head of Discourse, and as far as the developement of the mental phenomena seems to require it, will there be presented.

It may still be useful to advert to the three principal cases into which Classification may be resolved ; 1, that of objects considered as synchronical ; 2, that of objects considered as successive ; 3, that of feelings. The first is exemplified in the common classes of sensible objects, as men, horses, trees, and so on ; and requires no further explanation. The second is exemplified in the classes of events, denoted by such words, as Birth, Death, Snowing, Thundering, Freezing, Flying, Creeping. By these words there is always denoted one antecedent and one consequent, generally more, sometimes a long train of them. And it is obvious that each of them is, at once, the name of each instance individually, and of all taken generally together. Thus, Freezing, is not the name of an individual instance of freezing only, but of that and of all other instances of Freezing. The same is the case with other words of a still more general, and thence more obscure signification, as Gravitation, Attraction, Motion, Force, &c. ; which words have this additional source of confusion, that they are ambiguous, being both abstract and concrete. When we say that there is a third case of

classification, relating to Feelings, it does not mean that the two former do not relate to feelings: for when we say, that we classify objects, as men, horses, &c.;—or events, as the sequences named births, deaths, and so on;—it is obvious that our operation is about our own feelings, and nothing else; as the objects, and their successions, are, to us, the feelings merely which we thus designate. But as there are feelings which we do thus designate; and feelings which we do not; it is convenient, for the purpose of teaching, to treat of them apart. The Feelings, of this latter kind, which we classify, are either single feelings, or trains. Thus, Pain is the name of a single feeling, and the name both of an individual instance, and of indefinite instances, forming a most extensive class. Memory is the name not of a single feeling or idea, but of a train; and it is the name not only of a single instance, but of all instances of such a train, that is, of a class. The same is the case with Belief. It is the name of a train consisting of a certain number of links; and it is the name not only of an individual instance of such trains, but of all instances, forming an extensive class. Imagination is another instance of the same sort of classification. So also is Judgment, and Reasoning, and Doubting, and we might name many more.

It is easy to see, among the principles of Association, what particular principle it is, which is

mainly concerned in Classification, and by which we are rendered capable of that mighty operation ; on which, as its basis, the whole of our intellectual structure is reared. That principle is Resemblance. It seems to be similarity or resemblance which, when we have applied a name to one individual, leads us to apply it to another, and another, till the whole forms an aggregate, connected together by the common relation of every part of the aggregate to one and the same name. Similarity, or Resemblance, we must regard as an Idea familiar and sufficiently understood for the illustration at present required. It will itself be strictly analysed, at a subsequent part of this Inquiry.

So deeply was the sagacious mind of Plato, far more philosophical than that of any who succeeded him, during many ages, struck with the importance of Classification, that he seems to have regarded it as the sum of all philosophy ; which he described, as being the faculty of seeing “ the ONE in the MANY, and the MANY in the ONE ;” a phrase which, when stripped from the subtleties of the sophists whom he exposed, and from the mystical visions of his successors, of which he never dreamed, is really a striking expression of what in classification is the matter of fact. His error lay, in misconceiving the ONE ; which he took, not for the aggregate, but something pervading the aggregate.



## CHAPTER IX.

## ABSTRACTION.

“ I think, too, that he (Mr. Locke) would have seen the advantage of ‘ thoroughly weighing,’ not only (as he says) ‘ the *imperfections* of Language;’ but its *perfections* also: For the *perfections* of Language, not properly understood, have been one of the chief causes of the *imperfections* of our knowledge.”—*Diversions of Purley*, by John Horne Tooke, A. M., i., 37.

THE two cases of CONSCIOUSNESS, CLASSIFICATION, and ABSTRACTION, have not, generally, been well distinguished.

According to the common accounts of Classification, ABSTRACTION was included in it. When it is said, that, in order to classify, we leave out of view all the circumstances in which individuals differ, and retain only those in which they agree; this separating one portion of what is contained in a complex idea, and making it an object of consideration by itself, is the process which is named Abstraction, at least a main part of that process.

It is necessary now to inquire what are the purposes to which this separating of the parts of a complex idea, and considering and naming the separated parts by themselves, is subservient.

We have already observed the following remarkable things in the process of naming: 1, Assigning names of those clusters of ideas called objects; as man, fish; 2, Generalizing those names, so as to make them represent a class; 3, Framing adjectives by which minor classes are cut out of larger.

Those adjectives are all names of some separate portion of a cluster, and are, therefore, all instruments of abstraction, or of that separating one or more of the ingredients of a complex idea from the rest, which has received the name of Abstraction. One purpose of Abstraction, therefore, is the formation of those *sub-species*, the formation of which is required for certain purposes of speech.

These observations will be rendered familiar by examples. We say, tall man, red flower, race horse. In my complex idea of a man, or the cluster of ideas of sense to which I affix that mark, are included, certain ideas of colour, of figure, size, and so on. By the word tall, I single out a portion of those ideas, namely, the part relating to size, or rather size in one direction, and mark the separation by the sign or name. In my complex idea of a flower, colour is always one of the ingredients. By applying the adjective red, I single

out this one from the rest, and point it out for peculiar consideration. The explanation is obvious, and need not be pursued in a greater number of instances.

Words of this description all denote differences; either such as mark out species from genera, or such as mark out individuals from species. Of this latter sort the number is very small; of which the reason is obvious; individual differences are too numerous to receive names, and are marked by contrivances of abridgment which will be spoken of hereafter.

To explain this notation of differences, the same examples will suffice. In the phrase "tall man," the adjective "tall" marks the difference between such a man, and "short man," or "middle-sized man." Of the genus man, tall men are one species; and the difference between them and the rest of the genus is marked by the word tall. Of the genus flower, red flowers form a species, and the difference between them and the rest of the genus is marked by the adjective red. Of the genus horse, race horse forms a species, and the difference between this species and the rest of the genus is marked by the word race.

It is of importance further to observe, that adjectives singling out ideas which are not differences, that is, ideas common to the whole class, are useless: as, tangible wood; coloured man; sentient animal. Such epithets express no more

than what is expressed by the name without them.

Another thing requiring the attention of the student is the mode in which these differential adjectives are generalized. As the word man, applied first to one individual, then to another, becomes associated with every individual, and every variety of the species, and calls them all up in one very complex idea ; so are these adjectives applied to one class after another, and by that means at last call up a very complicated idea. Let us take the word "black" for an example ; and let us suppose that we apply this adjective first to the word man. We say "black man." But we speedily see that for the same reason for which we say black man we may say black horse, black cow, black coat, and so on. The word black is thus associated with innumerable modifications of the sensation black. By frequent repetition, and the gradual strengthening of the association, these modifications are at last called up in such rapid succession that they appear commingled, and no longer many ideas, but one. Black is therefore no longer an individual but a general name. It marks not the particular black of a particular individual ; but the black of every individual, and of all individuals. The same is the case with all other words of the same class. Thus I apply the word sweet, first to the lump of sugar in my mouth, next to honey, next to grapes, and

so on. It thus becomes associated with numerous modifications of the sensation sweet; and when the association is sufficiently strengthened by repetition, calls them up in such close succession, that they are converted into one complex idea. We are also to remember, that the idea and the name have a mutual power over one another. As the word black calls up the complex idea, so every modification of black calls up the name; and in this, as in other cases, the name actually forms a part of the complex idea.

The next thing, which I shall observe, deserves in a high degree, the attention of the learner. In the various applications of that species of marks which we are now considering, they are associated with two distinguishable things; but with the one much more than the other. Thus, when we say black man, black horse, black coat, and so of all other black things, the word black is associated with the cluster, man, as often as black man is the expression; with the cluster horse, as often as black horse is the expression, and so on with infinite variety: but at the same time that it is associated with each of those various clusters, it is also associated with the peculiar sensation of colour which it is intended to mark. The CLUSTERS, therefore, with which it is associated, are variable; the PECULIAR SENSATION with which it is associated is invariable. It is much more constantly, and therefore much more strongly



associated with the SENSATION than with any of the CLUSTERS. It is at once a name of the clusters, and a name of the sensation; but it is more peculiarly a name of the SENSATION.

We have, in a preceding note, observed, that such words have been called *connotative*; and I shall find much convenience in using the term NOTATION to point out the sensation or sensations which are peculiarly marked by such words, the term CONNOTATION to point out the clusters which they mark along with this their principal meaning.

Thus the word, black, NOTES that of which black is more peculiarly the name, a particular colour; it CONNOTES the clusters with the names of which it is joined: in the expression, black man, it connotes man; black horse, it connotes horse; and so of all other cases. The ancient Logicians used these terms, in the inverse order; very absurdly, in my opinion.

In using these connotative names, it is often highly convenient to drop the connotation; that is, to leave out the connoted cluster.

A mark is needed, to shew when it is meant that the connotation is dropped. A slight mark put upon the connotative term answers the purpose; and shews when it is not meant that any thing should be connoted. In regard to the word black, for example, we merely annex to it the syllable *ness*; and it is immediately indicated that all connotation is dropped: so, in sweetness; hard-

ness ; dryness ; lightness. The new words, so formed, are the words which have been denominated ABSTRACT ; as the connotative terms from which they are formed have been denominated CONCRETE ; and, as these terms are in frequent use, it is necessary that the meaning of them should be well remembered.

It is now also manifest what is the real nature of ABSTRACT terms ; a subject which has in general presented such an appearance of mystery. They are simply the CONCRETE terms, with the connotation dropped. And this has in it, surely, no mystery at all.

It hence, also, appears that there can be no ABSTRACT term without an implied CONCRETE, though cases are not wanting, in which there is much occasion for the ABSTRACT term but not much for the CONCRETE ; in which, therefore, the concrete is not in use, or is supplied by another form of expression.

In irregular and capricious languages, as our own, the dropping of the connotation of the concrete terms is not marked in a uniform manner ; and this requires some illustration. Thus, heavy is a concrete term, and we shew the dropping of the connotation, by the same mark as in the instances above, saying heaviness ; but we have another term which is exactly the equivalent of heaviness, and frequently used as the abstract of heavy ; that is, weight. Friend is a concrete, connotative term, in the substantive form. Its

connotation is dropped by another mark, the syllable ship; thus, friendship; in like manner, generalship; brotherhood; cousinship. The syllable age is another of the marks we use for the same purpose; pilotage, parsonage, stowage.

Among concrete connotative words, we have already had full opportunity of observing that verbs constitute a principal class. Those words all NOTE some *motion* or *action*; and CONNOTE an *actor*. There is the same frequency of occasion to leave out the connotation in the case of this class of connotative words, as in other classes. Accordingly ABSTRACT terms are formed from them, as from the connotative adjectives and substantives. The infinitive mood is such an abstract term; with this peculiarity, that, though it leaves out the connotation of the *actor*, it retains the connotation of *time*. It is convenient, however, to have abstract terms from the verbs, which leave out also the connotation of time; such are the substantive *amor* from *amo*, *timor* from *timeo*, and so on.

Verbs have not only an active but a passive form. In the passive form, it is not the *action*, but the *bearing* of the action, which is NOTED; and not the *actor*, but the *bearer* of the action, that is CONNOTED. In this case, also, there is not less frequent occasion to drop the connotation. By the simple contrivance of a slight alteration in the connotative term, the important circumstance of dropping the connotation is marked. In

the case of the passive as the active form of verbs, the infinitive mood drops the connotation of the person, but retains that of the time. Other abstract terms, formed from the passive voice, leave out the connotation both of person and time. Thus from *legor*, there is *lectio*; from *optor*, *optatio*; from *dicor*, *dictio*; and so on.

It is to be remarked that the Latin mode of forming abstract terms from verbs, by the termination “tio,” has been adopted to a great extent in English. A large proportion of our abstract terms are thus distinguished; as action, association, imagination, navigation, mensuration, friction, motion, station, faction, legislation, corruption, and many others.

It is also of extreme importance to mark a great defect and imperfection, in this respect, of the Latin language. Such words as *lectio*, *dictio*, *actio*, are derived with equal readiness either from the supine, *lectum*, *dictum*, *actum*; or from the participle, *lectus*, *dictus*, *actus*. The supine is *active*, the participle, *passive*. From this circumstance probably it is, that these abstract terms in the Latin language possess both the active and passive signification; and by this most unfortunate ambiguity have proved a fertile source of obscurity and confusion. This defect of the Latin language is the more to be lamented by us, that it has infected our own language; for as we have borrowed from the Latin language a great pro-



portion of our abstract terms, we have transplanted the mischievous equivocation along with them. This ambiguity the Greek language happily avoided : thus it had *πραξις* and *πραγμα*, the first for the active signification of *actio*, the latter the passive.

Of the abstract terms, of genuine English growth, derived from the concrete names of action, or verbs, the participle of the past tense supplied a great number, merely dropping the adjective, and assuming the substantive form. Thus, weight, a word which we had occasion to notice before, is the participle weighed, with the connotation dropped : stroke is merely struck ; the *thing* struck, the connotation, being left out : thought is the past participle passive of the verb to think, and differs from the participle in nothing, but that the participle, the adjective, has the connotation ; the abstract, the substantive, has it not. Whether the concrete, or the abstract, is the term employed, is in such cases always indicated by the context ; and, therefore, no particular mark to distinguish them is required.

In our non-inflected language, a facility is afforded in forming a non-connotative from the connotative, in the active voice of verbs ; because the connotative word is always distinguished by the presence of the persons of the verb, or that of some part of the auxiliary verb. The same word, therefore, answers for the abstract, as for the



concrete ; it being of course the abstract, when none of the marks of the concrete are present. Thus the word love, is both the verb or the connotative, and the substantive or the non-connotative ; thus also fear, walk, ride, stand, fight, smell, taste, sleep, dream, drink, work, breath, and many others.

We have in English, formed from verbs, a great many abstracts or non-connotatives, which terminate in "th," as truth, health, dearth, stealth, death, strength. It may be disputed whether these words are derived from one part of the verb or another ; but, in all other respects, the nature of them is not doubtful. The third person singular of the present, indicative active, ends in "th;" and, therefore, they may be said to be that part of the verb with the connotation dropped. The termination, however, of the past participle is "d," and we know that "th" and "d," are the same letter under a slight difference of articulation ; and, therefore, they may just as well be derived from the past participle, and as often at least as they have a passive signification, no doubt are. Thus the verb trow, to think, has either troweth, or trowed ; from one of which, but more likely from the last, we have truth : the verb to heal, has either healeth, or healed ; from one of which, but more likely the last, we have health : the verb to string has stringeth, or stringed ; from one of which we have strength ;

thus from dieth, or died, death ; from stealeth, or stealed, stealth ; mirth in the same manner, from a verb now out of use ; so heighth, length, breadth.

It would be interesting to give a systematic account of the non-connotatives, derived from English verbs ; and this ought to be done ; but for the present inquiry it would be an operation misplaced. The nature of the words, and the mode of their signification, is all which here is necessary to be understood.

One grand class of connotative terms is composed of such words as the following : walking, running, flying, reading, striking ; and we have seen that, for a very obvious utility, a generical name was invented, the word ACTING, which includes the whole of these specific names ; and to which the non-connotative, or abstract term ACTION corresponds. There was equal occasion for a generical name to include all the specific names belonging to the other class of connotative terms ; such as coloured, sapid, hard, soft, hot, cold, and so on. But language has by no means been so happy in a general name for this, as for the other class. The word SUCH, is a connotative term, which includes them all, and indeed the other class along with them ; for when we apply the word SUCH to any thing, we comprehend under it all the ideas of which the cluster is composed. But this is not all which is included under the word such. It is a relative term, and always

connotes so much of the meaning of some other term. When we call a thing *such*, it is always understood that it is such *as* some other thing. Thus we say, John is such as James. Corresponding with our "such as," the Latins had *talis qualis*. If we could suppose *qualis* to have been used without any connotation of *talis*, *qualis* would have been such a word as the occasion which we are now considering would have required. The Latins did not use *qualis*, in this sense, as a general concrete, including all the other names of the properties of objects other than actions. But they made from it, as if used in that very sense, a non-connotative or abstract term, the word QUALITY, which answers the same purpose with regard to both classes, as action does to one of them. That is to say; it is a very general non-connotative term, including under it the non-connotatives or abstracts of hot, cold, hard, soft, long, short; and not only of all other words of that description, but of acting, and its subordinates also.

*Quantus*, is another concrete which has a double connotation like *qualis*. It connotes not only the substantive with which it agrees, but also, being a relative, the term *tantus*, which is its correlate. By dropping both connotations, the abstract QUANTITY is made; a general term, including under it the abstracts of all the names by which the modifications of greater and less

are denominated ; as large, small, a mile long, an inch thick, a handful, a ton, and so on.

Much remains, beside what is here stated, of the full explanation of the mode in which *talis qualis, tantus quantus*, are made conducive to the great purposes of marking. But this must be reserved till we come to treat of RELATIVE TERMS, in general.

We have previously observed, that one of the purposes for which we abstract, or sunder the parts of a complex idea, marked by a general name, is, to form those adjectives, or connotative terms, which, denoting differences, enable us to form, and to name, subordinate classes. We now come to the next of the great purposes to which abstraction is subservient, and it is one to which the whole of our attention is due.

Of all the things in which we are interested, that is, on which our happiness and misery depend, meaning here by things, both objects and events, the most important by far are the successions of objects ; in other words, the effects which they produce. In reality, objects are interesting to us, solely on account of the effects which they produce, either on ourselves, or on other objects.

But an observation of the greatest importance readily occurs ; that of any cluster, composing our idea of an object, the effects or consequents depend, in general, more upon one part of it than another. If a stone is *hot*, it has certain effects or con-



sequences; if *heavy*, it has others, and so on. It is of great importance to us, in respect to those successions, to be able to mark discriminately the real antecedent; not the antecedent combined with a number of things with which the consequent has nothing to do. I observe, that other objects, as iron, lead, gold, produce similar effects with stone; as often as the name *hot* can, in like manner, be predicated of them. In the several clusters therefore, hot stone, hot iron, hot gold, hot lead, there is a portion, the same in all, with which, and not with the rest, the effects which I am contemplating are connected. This part is marked by the word *hot*; which word, however, in the case of each cluster, connotes also the other parts of the cluster. It appears at once, how much convenience there must be in dropping the connotation, and obtaining a word which, in each of those cases, shall mark exclusively that part of the cluster on which the effect depends. This is accomplished by the abstract or non-connotative terms, heat, and weight.

Certain alterations, also, are observed in those parts of clusters on which such and such effects depend; which alterations make corresponding alterations in the effects, though no other alteration is observable, in the cluster, to which such parts belong. Thus, if a stone is more or less hot, the effects or successions are not the same; so of iron, so of lead; but the same alteration in



the same part of each of those clusters, is followed by the same effects. It is true, that we know nothing of the alteration in the cause, but by the alteration in the effects; for we only say that a stone is hotter, because it produces such other effects, either in our sensations immediately, or in the sensations we receive from other objects. It is, however, obvious that we have urgent use for the means of marking, not only the alterations in the effects, but the alterations in the antecedents. This we do, by supposing the alterations to be those of increase and diminution, and marking them by the distinction of lower and higher degrees. But, for this purpose, it is obvious that we must have a term which is not connotative; because we suppose no alteration in any part of the cluster but that which is not connoted; thus we can say, with sufficient precision, that a greater or less degree of heat produces such and such effects; but we cannot say, that a greater or less degree of hot stone, of hot iron, of hot any thing else, produces these effects.

This then, is another use, and evidently a most important use, of abstract, non-connotative terms. They enable us to mark, with more precision, those successions, in which our good and evil is wholly contained.

This also enables us to understand, what it is which recommends such and such aggregates, and not others, for classification. Those successions

of objects, in which we are interested, determine the classifications which we form of them.

Some successions are found to depend upon the clusters, called objects, all taken together. Thus a tree, a man, a stone, are the antecedents of certain consequents, as such; and not on account of any particular part of the cluster.

Other consequents depend not upon the whole of the cluster, but upon some particular part: thus a tall tree, produces certain effects, which a tree not tall, cannot produce; a strong man, produces certain effects, which a man not strong cannot produce. When these consequents are so important, as to deserve particular attention, they and their antecedents must be marked. For this purpose, are employed the connotative terms marking differences. These terms enable us to group the clusters containing those antecedents into a sub-class; and NON-CONNOTATIVE or ABSTRACT terms, derived from them, enable us to speak separately of that part of the cluster which we have to mark as the precise antecedent of the consequent which is engaging our attention.

It is presumed, that these illustrations will suffice, to enable the reader to discern the real marking power of abstract terms, and also to perceive the mode of their formation.

## CHAPTER X.

## MEMORY.

“ The science of metaphysics, as it regards the mind, is, in its most important respects, a science of analysis; and we carry on our analysis, only when we suspect that what is regarded by others as an ultimate principle, admits of still finer evolution into principles still more elementary.”—*Inquiry into the Relation of Cause and Effect*, by Thomas Browne, M. D. P. iv. s. i. p. 331.

IT has been already observed that if we had no other state of consciousness than sensation, we never could have any knowledge, excepting that of the present instant. The moment each of our sensations ceased, it would be gone for ever; and we should be as if we had never been.

The same would be the case if we had only ideas in addition to sensations. The sensation would be one state of consciousness, the idea another state of consciousness. But if they were perfectly insulated; the one having no connexion with the other; the idea, after the sensation, would give me no more information, than one sen-

sation after another. We should still have the consciousness of the present instant, and nothing more. We should be wholly incapable of acquiring experience, and accommodating our actions to the laws of nature. Of course we could not continue to exist.

Even if our ideas were associated in trains, but only as they are in Imagination, we should still be without the capacity of acquiring knowledge. One idea, upon this supposition, would follow another. But that would be all. Each of our successive states of consciousness, the moment it ceased, would be gone for ever. Each of those momentary states would be our whole being.

Such, however, is not the nature of man. We have states of consciousness, which are connected with past states. I hear a musical air ; I recognise it as the air which was sung to me in my infancy. I have an idea of a ghost ; I recognise the terror with which, when I was alone in the dark, that idea, in my childish years, was accompanied. Uniting in this manner the present with the past, and not otherwise, I am susceptible of knowledge ; I am capable of ascertaining the qualities of things ; that is, their power of affecting me ; and of knowing in what circumstances what other circumstances will take place. Suppose that my present state of consciousness is the idea of putting my finger in the flame of the candle. I recognise the act as a former act ; and this recognition is followed by another,

namely, that of the pain which I felt immediately after. This part of my constitution, which is of so much importance to me, I find it useful to name. And the name I give to it is MEMORY. When the memory of the past is transferred into an anticipation of the future, by a process which will be explained hereafter, it gets the name of experience; and all our power of avoiding evil, and obtaining good, is derived from it. Unless I remembered that my finger had been in the flame of the candle; and unless I anticipated a similar consequent, from a similar antecedent, I should touch the flame of the candle, after being burned by it a hundred times, just as I should have done, if neither burning nor any of its causes had ever formed part of my consciousness.

Our inquiry is, what this part of our constitution, so highly important to us, is composed of. All inquirers are agreed, that it is complex; but what the elements are into which it may be resolved, has not been very successfully made out.

It is proper to begin with the elements which are universally acknowledged. Among them, it is certain, that IDEAS are the fundamental part. Nothing is remembered but through its IDEA. The memory, however, of a thing, and the idea of it, are not the same. The idea may be without the memory; but the memory cannot be without the idea. The idea of an elephant may occur to me, without the thought of its having been an object of my senses. But I cannot have the



thought of its having been an object of my senses, without having the idea of the animal at the same time. The consciousness, therefore, which I call memory, is an idea, but not an idea alone; it is an idea and something more. So far is our inquiry narrowed. What is that which, combined with an idea, constitutes memory?

That memory may be, the idea must be. In what manner is the idea produced?

We have already seen in what manner an idea is called into existence by association. It is easy to prove that the idea which forms part of memory is called up in the same way, and no other. If I think of any case of memory, I shall always find that the idea, or the sensation which preceded the memory, was one of those which are calculated, according to the laws of association, to call up the idea involved in that case of memory; and that it was by the preceding idea, or sensation, that the idea of memory was in reality brought into the mind. I have not seen a person with whom I was formerly intimate for a number of years; nor have I, during all that interval, had occasion to think of him. Some object which had been frequently presented to my senses along with him, or the idea of something with which I have strongly associated the idea of him, occurs to me; instantly the memory of him exists. The friend with whom I had often seen him in company, accidentally meets me; a letter of his which had been long unobserved, falls under my eye; or an

observation which he was fond of producing, is repeated in my hearing; these are circumstances all associated with the idea of the individual in question; the idea of him is excited by them, and with the mere idea of the man, all the other circumstances which constitute memory.

The necessary dependence of memory upon association, may be proved still more rigidly in this way. It has been already observed, that we cannot call up any idea by willing it. When we are said to will, there must be in the mind, the idea of what is willed. "Will, without an idea," are incongruous terms; as if one should say, "I can will, and will nothing." But if the idea of the thing willed, must be in the mind, as a condition of willing, to will to have an idea in the mind, is to will to have that in it, which, by the supposition, is in it already.

There is a state of mind familiar to all men, in which we are said to try to remember. In this state, it is certain that we have not in the mind the idea which we are trying to have in it. How then is it, that we proceed in the course of our endeavour to procure its introduction into the mind? If we have not the idea itself, we have certain ideas connected with it. We run over those ideas, one after another, in hopes that some one of them will suggest the idea we are in quest of; and if any of them does, it is always one so connected with it, as to call it up in the way of association. I meet an old acquaintance, whose

name I do not remember, and wish to recollect. I run over a number of names, in hopes that some of them may be associated with the idea of the individual. I think of all the circumstances in which I have seen him engaged; the time when I knew him, the place in which I knew him, the persons along with whom I knew him, the things he did, or the things he suffered; and, if I chance upon any idea with which the name is associated, then immediately I have the recollection; if not, my pursuit of it is in vain.

There is another set of cases, very familiar, but affording very important evidence on the subject. It frequently happens, that there are matters which we desire not to forget. What is the contrivance to which we have recourse for preserving the memory; that is, for making sure that it will be called into existence, when it is our wish that it should. All men, invariably employ the same expedient. They endeavour to form an association between the idea of the thing to be remembered, and some sensation, or some idea, which they know beforehand will occur at or near the time when they wish the remembrance to be in their minds. If this association is formed, and the sensation or the idea, with which it has been formed, occurs; the sensation, or idea, calls up the remembrance; and the object of him who formed the association is attained. To use a vulgar instance; a man receives a commission from his friend, and, that he may not forget it,

ties a knot on his handkerchief. How is this fact to be explained? First of all, the idea of the commission is associated with the making of the knot. Next, the handkerchief is a thing which it is known beforehand will be frequently seen, and of course at no great distance of time from the occasion on which the memory is desired. The handkerchief being seen, the knot is seen, and this sensation recalls the idea of the commission, between which and itself, the association had been purposely formed.

What is thus effected through association with a sensation, may be effected through association with an idea. If there is any idea, which I know will occur to me at a particular time, I may render myself as sure of recalling any thing which I wish to remember at that time, by associating it with this idea, as if I associated it with a sensation. Suppose I know that the idea of Socrates will be present to my mind at twelve o'clock this day week: if I wish to remember at that time something which I have to do, my purpose will be gained, if I establish between the idea of Socrates, and the circumstance which I wish to remember, such an association that the one will call up the other.

A very remarkable application of this principle offers itself to our contemplation, in the artificial memory which was invented by the ancient orators and rhetoricians. The orator made choice of a set of objects, sufficient in number to answer his purpose. The ideas of those objects he taught



himself, by frequent repetition, to pass through his mind in one constant order. The objects which he chose were commonly such as aided him in fixing them according to a certain order in his memory; the parts, for example, of some public building, or other remarkable assemblage. Having so prepared himself, the mode in which he made use of his machinery was as follows. The topics or sentiments of his speech were to follow in a certain order. The parts of the building he had chosen as his instrument had previously been taught to follow by association, in a certain order. With the first of these, then, he associated the first topic of his discourse; with the second, the second, and so on. The first part of the building suggested the first topic; the second, the second; and each another, to the end of his discourse.

We not only have ideas of memory, individually taken; that is, separately, each by itself; as in the instances which we have just been considering: we have also trains of such ideas. All narratives of events which ourselves have witnessed are composed of such trains. The ideas forming those trains do not follow one another in a fortuitous manner. Each succeeding idea is called up by the one which precedes it; and every one of these successions takes place according to a law of association. After a lapse of many years, I see the house in which my father died. Instantly a long train of the circumstances connected with him rise in my



mind: the sight of him on his death-bed; his pale and emaciated countenance; the calm contentment with which he looked forward to his end; his strong solicitude, terminating only with life, for the happiness of his son; my own sympathetic emotions when I saw him expire; the mode and guiding principles of his life; the thread of his history; and so on. In this succession of ideas, each of which is an idea of memory, there is not a single link which is not formed by association; not an idea which is not brought into existence by that which precedes it.

Whensoever there is a desire to fix any train in the memory, all men have recourse to one and the same expedient. They practise what is calculated to create a strong association. The grand cause of strong associations is repetition. This, accordingly, is the common resource. If any man, for example, wishes to remember a passage of a book, he repeats it a sufficient number of times. To the man practised in applying the principle of association to the phenomena in which it is concerned, the explication of this process presents itself immediately. The repetition of one word after another, and of one idea after another, gives the antecedent the power of calling up the consequent from the beginning to the end of that portion of discourse, which it is the purpose of the learner to remember.

That the remembrance is produced in no other

way, is proved by a decisive experiment. For, after a passage has been committed to memory in the most perfect manner, if the learner attempts to repeat it in any other order than that, according to which the association was formed, he will fail. A man who has been accustomed to repeat the Lord's Prayer, for example, from his infancy, will, if he has never tried it, find the impossibility of repeating it backwards, small as the number is of the words of which it consists.

That words alone, without ideas, suggest one another in a train, is proved by our power of repeating a number of words of an unknown language. And, it is worth observing, that the power of arithmetical computation is dependent upon the same process. Thus, for example, when a child learns the multiplication table, and says, 11 times 11 is 121, or 12 times 12 is 144, he annexes no ideas to those words ; but, by force of repetition, the expression 12 times 12 instantly calls up the expression 144, or 11 times 11 the expression 121, and so upwards from twice 2, with which he begins. In illustrating the mode in which repetition makes association more and more easy, I used the process of arithmetical addition as a striking example. Persons little accustomed to the process perform it with great difficulty ; persons much accustomed to it, with astonishing facility. In men of the first class, the association is imperfectly formed, and the several antecedent

expressions slowly suggest the proper consequent ones; in those of the latter class the association is very perfectly formed, and the expressions suggest one another with the greatest expedition and ease.

Thus far we have proceeded with facility. In Memory there are ideas, and those ideas both rise up singly, and are connected in trains by association. The same occurs in Imagination. Imagination consists of ideas, both suggested singly, and connected in trains, by association. This is the whole account of Imagination. But Memory is not the same with Imagination. We all know, when we say, we imagine a thing, that we have not the same meaning, as when we say, we remember it. Memory, therefore, has in it all that Imagination has; but it must also have something more. We are now, then, to inquire what that additional something is.

There are two cases of Memory. One is, when we remember sensations. The other is, when we remember ideas. The first is, when we remember what we have seen, felt, heard, tasted, or smelt. The second is, when we remember what we have thought, without the intervention of the senses. I remember to have seen and heard George III., when making a speech at the opening of his Parliament. This is a case of sensation. I remember my conceptions of the Emperor Napoleon and his audience, when I read the

account of his first address to the French Chambers. This is a case of ideas.

We shall consider the case of sensations first. What is it to remember any thing I have seen?

First, there is the idea of it; and that idea brought into existence by association.

But, in Memory, there is not only the idea of the thing remembered; there is also the idea of my having seen it. Now these two, 1, the idea of the thing, 2, the idea of my having seen it, combined, make up, it will not be doubted, the whole of that state of consciousness which we call memory.

But what is it we are to understand by what I have called "the idea of my having seen the object?" This is a very complex idea; and, in expounding, clearly, to the comprehension of persons, not familiar with these solutions, the import and force of a very complex idea, lies all the difficulty of the case.

It will be necessary for such persons to call to mind the illustrations they have already contemplated of the remarkable case of association, in which a long train of ideas is called up so rapidly as to appear but one idea; and also the other remarkable case, in which one idea is so strongly associated with another, that it is out of our power to separate them. Thus, when we use the word battle, the mind runs over the train of countless acts, from the beginning of that ope ra



tion to the end ; and it does this so rapidly, that the ideas are all clustered into one, which it calls a battle. In like manner, it clusters a series of battles, and all the intermediate operations, into one idea, and calls it a campaign ; also several campaigns into one idea, and calls it a war. Of the same nature is the compound idea, which we denote by the word year ; and the still more compound idea, which we denote by the word century. The mind runs over a long train of ideas, and combines them so closely together, that they assume the appearance of a single idea ; to which, in the one case, we assign the name year, in the other, the name century.

In my remembrance of George III., addressing the two Houses of Parliament, there is, first of all, the mere idea, or simple apprehension ; the conception, as it is sometimes called, of the objects. There is combined with this, to make it memory, my idea of my having seen and heard those objects. And this combination is so close, that it is not in my power to separate them. I cannot have the idea of George III. ; his person and attitude, the paper he held in his hand, the sound of his voice while reading from it, the throne, the apartment, the audience ; without having the other idea along with it, that of my having been a witness of the scene.

Now, in this last-mentioned part of the compound, it is easy to perceive two important ele-



ments; *the idea of my present self*, the remembering self; and *the idea of my past self*, the remembered or witnessing self. These two ideas stand at the two ends of a portion of my being; that is, of a series of my states of consciousness. That series consists of the successive states of my consciousness, intervening between the moment of perception, or the past moment, and the moment of memory, or the present moment. What happens at the moment of memory? The mind runs back from that moment to the moment of perception. That is to say, it runs over the intervening states of consciousness, called up by association. But "to run over a number of states of consciousness, called up by association," is but another mode of saying, that "we associate them;" and in this case we associate them so rapidly and closely, that they run, as it were, into a single point of consciousness, to which the name MEMORY is assigned.

If this explanation of the case in which we remember sensations is understood, the explanation of the case in which we remember ideas cannot occasion much of difficulty. I have a lively recollection of Polyphemus's cave, and the actions of Ulysses and the Cyclops, as described by Homer. In this recollection there is, first of all, the ideas, or simple conceptions of the objects and acts; and along with these ideas, and so closely combined as not to be separable, the idea of my

having formerly had those same ideas. And this idea of my having formerly had those ideas, is a very complicated idea ; including the idea of myself of the present moment remembering, and that of myself of the past moment conceiving ; and the whole series of the states of consciousness, which intervened between myself remembering, and myself conceiving.

If we contemplate forgetfulness, not memory, we shall see how completely the account of it confirms the account we have just rendered of memory. Every case of forgetfulness, is a case of weakened, or extinct, association. Some years ago, I could repeat a certain discourse with accuracy and ease, from beginning to end ; attempting it, the other day, I was unable to repeat more than a few sentences. The reason is obvious. The last of the words and ideas which occurred to me failed to suggest the following ; that is to say, the association which formerly existed between them was dissolved.

A remarkable piece of natural scenery, composed of mountains, woods, rivers, lakes, ocean, flocks, herds, cultivated fields, gay cottages, and splendid palaces, of which I had a lively recollection many years ago, presents itself to me now very much faded : in other words, a great variety of the circumstances, which make up the detail and minute features of the scene, were formerly remembered by me, but are now forgotten. And

how forgotten? The manner is obvious. The greater features, which I still remember, had formerly the power of calling up the smaller along with them, and the whole scene was revived; the association gradually declining, the great objects have no longer the power to excite the idea of the small; and they are therefore gone from me for ever.

There are things of which I have so entirely lost the recollection, that it never can be revived. The meaning is, that the associations which were formed between the ideas of them, and other ideas, are so completely dissolved, that none of my present ideas has the power of exciting them.

It is observable, that sensations have a stronger power to excite recollections than is possessed by ideas. A man, after an absence of many years, revisits the scenes of his infancy: a variety of circumstances crowd into his memory, which, but for the scene before him, would never have been remembered again. These are the circumstances between which, and the perception of the pristine objects, the association is not yet dissolved. There are other circumstances, without number, which (the association being completely dissolved) not even that perception can revive, and which never can be remembered more.

We have seen that there are two cases of memory; that in which sensations are remembered, and that in which ideas.

It is said, that there are men, who, by often telling a mendacious story as true, come at last to believe it to be true. When this happens, the fact is, that a case of the memory of *ideas*, comes to be mistaken for a case of the memory of *sensations*.

How did the man know at first that it was a fictitious story; and how did he afterwards lose that knowledge?

He knew, at first, by certain associations; he lost his knowledge, by losing those associations, and acquiring others in their stead. When he first told the story, the circumstances related called up to him the idea of himself fabricating the story. This was the memory of the fabrication. In repeating the story as real, the idea of himself fabricating the story is hurried over rapidly; the idea of himself as actor in the story is dwelt upon with great emphasis. In continued repetitions, the first circumstance being attended to as little as possible, the association of it grows weaker and weaker; the other circumstance engrossing the attention, the association of it grows stronger and stronger; till the weaker is at last wholly overpowered by the stronger, and ceases to have any effect.

In delirium, madness, and dreams, men believe that what they only imagine, they hear, see, and do. This so far agrees with the case of forgetfulness, just explained, that, in both, there is a



mistake of ideas for sensations ; but, in the case of memory, it is a mistake of past ideas for past sensations ; in delirium, madness, and dreaming, it is a mistake of present ideas for present sensations.

How men in sound memory distinguish the ideas remembered, from sensations remembered, and know that the one is not the other, seems to be accounted for by the difference of the things themselves. A sensation is different from an idea, only because it is felt to be different ; and being felt to be different, and known to be different, are not two things, but one and the same thing. I have a sensation ; I have an idea : if these two are distinguishable in the having, it is likely that the copy of the sensation should be distinguishable from the revival of the idea, when they are both brought up by association ; just as when I have two distinguishable sensations, one, for example, of red, and another of black, the copies of them, when brought up by association, are distinguishable. Besides, the accompaniments of a sensation are always generically different from those of an idea ; of course, the associations are generically different. The accompaniments of a sensation, are all the simultaneous *objects of sensation*, together with all those which, to a certain extent, both preceded and followed it. The accompaniments of an idea are not the simultaneous objects of sensation, but *other ideas* ; namely, the



neighbouring parts, antecedent and consequent, of the mental train. A sensation, therefore, called up by association, and an idea called up by association, are distinguished both by the difference of the two feelings, and the difference of the associated circumstances.

It is observable, that the idea of a *sensation* called up by association, and recognised as the idea of a sensation, is of course a remembrance. The recognition consists in that highly complex idea, consisting of three principal ingredients: 1, the point of consciousness called the remembering self; 2, the point of consciousness called the percipient self; 3, the successive states of consciousness which filled up the interval between these two points.

An *idea* called up by association is not necessarily a remembrance; it is only a remembrance when recognised as having been an idea before. And it is recognised as having been an idea before, by the association of that idea, which connects the self of the present moment with the self of the past moment, the remembering self with the conceiving self: in other words, the complex idea is made up of those two selves and the intermediate states of consciousness.

Another distinction is here suggested between the memory of a sensation and the memory of an idea. The complex idea, which needs to be associated with a mere simple idea, to make it me-

mory, is not the same in the two cases. There is a specific difference. The self which is at the antecedent end of the associated train, in the case of sensation, is the sentient self; that is, seeing or hearing; the self at the antecedent end of the associated train, in the case of ideas, is not the sentient self, but the conceptive self, self having an idea. But myself percipient, and myself imagining or conceiving, are two very different states of consciousness: of course the ideas of these states of consciousness, or these states revived by association, are very different ideas.

The simplest of all cases of memory is that of a sensation immediately past. I have one sensation, and another sensation; call them A and B; and I recognise them as successive. Every man has experience of the fact, and is familiar with it. But not every man can tell what it involves.

When a sensation ceases, it is as completely gone, as if it had never existed. It is, in a certain sense, revived again in its idea. But that idea must be called into existence by something with which it is associated. In my two sensations, supposed above, the one antecedent, the other consequent, how do I recognise the succession; if the first is gone, before the coming of the second? It is evident that it must be by memory. And how by memory? The preceding developements seem to make the process clear. The consciousness of the present moment calls up the idea of the consciousness of the preceding

moment. The consciousness of the present moment is not absolutely simple; for, whether I have a sensation or idea, the idea of what I call Myself is always inseparably combined with it. The consciousness, then, of the second of the two moments in the case supposed, is the sensation combined with the idea of Myself, which compound I call "Myself Sentient." This "Self Sentient," in other words sensation B, combined with the idea of self, calls up the idea of sensation A combined with the idea of self. This we call MEMORY; and, there being no intermediate link, *immediate* MEMORY. Suppose that, instead of two sensations, there had been three, A, B, C. In order to remember A, it is necessary to step over B. The consciousness of the third moment, namely, "sensation C, united with the idea of self," calls up the idea of "sensation A, united with the idea of self," and along with this the intermediate state of consciousness, "B, with the constant concomitant self." If the intermediate state, B, were not included, the sensation A would appear to have immediately preceded sensation C, and the memory would be inaccurate.

We have thus carried the analysis of Memory to a certain point. We have found the association to consist of three parts; the remembering self; the remembered self; and the train which intervened. Of these three parts, the last has been fully expounded. The recalling of the successive

states of consciousness, which composed the intervening train, is an ordinary case of association. The other parts, *the two selves*, at the two extremities of this train, require further consideration. The self, at the first end, is the remembered self; the *self which had a sensation, or an idea*. The idea of this self, therefore, consists of two parts: of self, and a sensation, or an idea. The last-mentioned part of this combination, the sensation or idea, needs no explanation; the first, that which is called self, does. The self at the other extremity of the chain of consciousness, is the *remembering self*. Remembering is associating. The idea of this self, then, is the combination of self with the idea of associating. And here, too, associating needs no explanation; it is the other part of the combination that does. The analysis, then; of SELF, or the account of what is included in that state of consciousness commonly called the *idea of personal identity*, is still wanting to the complete developement of Memory.

Philosophers tell us also, that the idea of *Time* is included in every act of MEMORY; and again, that it is from MEMORY we obtain our idea of *Time*: thus asserting that the idea of *Time* must precede MEMORY, and that MEMORY must precede the idea of *Time*. These contradicting propositions imply that the idea of *Time* in the minds of those who make them, is a very con-

fused idea. Nevertheless, as there can be no memory without the idea called Time, the exposition of that idea, likewise, is necessary to the full understanding of Memory.

The idea of personal IDENTITY, and the idea of TIME, two very remarkable states of consciousness, will be very carefully examined hereafter. But for the more ready understanding of what is necessary to be adduced in expounding those complicated cases of association, some other phenomena of the mind will first be explained.

What is to be understood by that BELIEF which is said to accompany MEMORY, will be seen in the next chapter, where all the different cases of belief will be resolved into their elements.



## CHAPTER XI.

## BELIEF.

“ Cette recherche peut infiniment contribuer aux progrès de l’art de raisonner ; elle le peut seule développer jusques dans ses premiers principes. En effet, nous ne découvrirons pas une manière sûre de conduire constamment nos pensées ; si nous ne savons pas, comment elles se sont formées.”—*Condillac, Traité de Sens.* p. 460.

IT is not easy to treat of MEMORY, BELIEF, and JUDGMENT, separately. For, in the rude and unskilful manner in which naming has been performed, the states of consciousness, marked by those terms, are not separate and distinct.

Part of that which is named by MEMORY, is included under the term BELIEF ; and part of that which is named by JUDGMENT, is also included under the name BELIEF. BELIEF, therefore, instead of having a distinct province to itself, encroaches on the provinces both of MEMORY, and JUDGMENT ; from which great confusion has arisen.

I take MEMORY first, and JUDGMENT last, from no other principle of arrangement, than facility of exposition; and I have in this way found it convenient to treat of JUDGMENT as a case of BELIEF.

We begin as usual with the simplest cases. These are, the case of a simple sensation, and the case of a simple idea. When we have a sensation, we BELIEVE that we have it; when we have an idea, we BELIEVE that we have it.

But, *to have a sensation, and to believe that we have it*, are not distinguishable things. When I say "I have a sensation," and say, "I believe that I have it," I do not express two states of consciousness, but one and the same state. A sensation is a feeling; but a feeling, and the belief of it are the same thing. The observation applies equally to ideas. When I say I have the idea of the sun, I express the same thing, exactly, as when I say, that I believe I have it. The feeling is one, the names, only, are two.

It may be alleged that, when I say "I have a sensation," I express the simple feeling, as derived from the outward sense; but that when I say "I believe I have a sensation," I express two things, the simple sensation, and the association with it, of that remarkable idea, the idea of myself. The association, however, is the same in both cases. As I never have the *sensation* of an object, the sight, for example, of a rose, without associating

with it, the idea of position, and also that of unity ; nor the *idea* of such an object, without the same association ; so I never have a sensation, nor the idea of that sensation, without associating with it, the idea of myself. And in both cases, the associations are of that remarkable class, which we have denominated inseparable. It is not in our power to prevent them. Whenssoever the perception of the object exists, the idea of its position is sure to exist along with it ; whenssoever one of my *sensations* exists, the idea of myself exists along with it ; whenssoever one of my *ideas* exists, the idea of myself is sure to exist along with it.

In the case, then, of a present sensation, and that of a present idea ; the sensation, and the belief of the sensation ; the idea, and the belief of the idea, are not two things ; they are, in each case, one and the same thing ; a single thing, with a double name.

The several cases of Belief may be considered under three heads : I., Belief in events, real existences ; II., Belief in testimony ; and III., Belief in the truth of propositions. We shall consider them in their order ; and first, Belief in events, real existences.

I. This is subdivided into three distinct cases : 1, Belief in present events ; 2, Belief in past events ; 3, Belief in future events.

1. Belief in present events, again, is divided

into two cases : 1, Belief in immediate existences present to my senses ; 2, Belief in immediate existences not present to my senses.

Belief in existences present to my senses, includes, for one element, belief in my sensations ; and belief in my sensations, as we have just observed, is only another name for having the sensations.

But belief in the external objects, is not simply belief in my present sensations ; it is this, and something more. The something more, is now the object of our inquiry. I see, for example, a rose : my sensation is a sensation of sight ; that of a certain modification of light ; but my belief of the rose is not this ; it is this, and much more.

Besides the sensation of colour, I have, for one thing, the belief of a certain distance, at which I see the rose ; and that of a certain figure, consisting of leaves disposed in a certain form. I believe that I see this distance and form ; in other words, perceive it by the eye, as immediately as I perceive the colour. Now this last part of the process has been explained by various philosophers. There is no dispute, or uncertainty, about the matter. All men admit, that this, one of the most remarkable of all cases of belief, is wholly resolvable into association. It is acknowledged, that, by the sense of sight, we receive no sensation but that of a certain modification of light. It is equally proved, that the sensations from which our ideas of dis-

tance and figure are derived, are sensations of the muscular actions and touch. How, then, is the Belief generated, that we see extension and figure, as well as colour? After the experience the learner has now had in tracing the rapid combinations of the mind, this presents but little difficulty. He knows, that when we are receiving through the muscles and the touch, the sensations which yield us the idea of extension and figure, we are receiving the sensations of sight at the same time, from the same objects. The sensations of sight, therefore, are associated with the ideas of these tactile and muscular sensations; and associated in the most perfect possible manner; because the conjunction is almost invariable, and of incessant occurrence, during the whole period of life. We are perpetually feeling, and seeing, the same objects, at the same time; so much so, that our lives may be said to consist of those sensations in union; to consist, at least to a far greater degree, of this, than of any one other state of consciousness.

This intensity of association, we know, produces two effects. One, is to blend the associated feelings so intimately together, that they no longer appear many, but one feeling. The other is, to render the combination inseparable; so that if one of the feelings exist, the others necessarily exist along with it.

The case of association which we are now con-



sidering, brings to view another circumstance, of some importance in tracing the effects of this great law of our nature. It is this: that in any associated cluster, the idea of sight is almost always the prevalent part. The visible idea is that which takes the lead, as it were; and serves as the suggesting principle to the rest. So it happens in the combination of the sensations of colour, with those of extension and figure: the visible idea stands foremost; and calls up the rest. It calls them up also with such intensity, that both the remarkable cases of association are exemplified. Whenever we have the sensation of colour, we cannot avoid having the ideas of distance, of extension, and figure, along with it; nor can we avoid having them in such intimate union with the ocular sensation, that they appear to be that sensation itself. This is the whole of what is ever supposed to be in the case. Of no phenomenon of the human mind is the development more complete or more important. Our belief that we *see* the shape, and size, and distance of the object we look at, is as perfect as belief in any instance can be. But this belief is nothing more than a case of very close association.

The case of belief by association, any one may illustrate further, for himself, by recollecting some of the commonest cases of optical deception. If we look at a landscape with the naked eye, we believe the several objects before us, the men, the animals,

the trees, the houses, the hills, to be at certain distances. If we next look at them through a telescope, they seem as if they were brought nearer ; we have the distinct belief of their proximity, and though a belief immediately corrected by accompanying reflection, it is not only belief, but a belief that we can by no means shake off. We can, after this, invert the telescope, and then we cannot help believing, that the nearest objects are removed to a distance. Now what is it that the telescope performs in these two instances ? It modifies in a certain manner the rays of light to the eye. The rays, proceeding from the objects, are so distributed on the eye, as they would be if the distance of the objects was less, or greater. Instantly we have the belief that it is less or greater ; because, the sensation of the eye, by means of the glass, is made to resemble that which it receives, when objects are seen at a smaller or greater distance ; and each of the sensations calls up that idea of distance which is habitually associated with it.

We have thus far proceeded, with some certainty, in detecting the component parts of that which we call our "belief in the existence of external objects." We have taken account of the sensation from which is derived the visible idea, of the sensations from which are derived the ideas of position, extension, and figure ; and we have explained the intimate combination of those two

sets of ideas by association. But these, though the leading sensations and ideas, are not the only ones. There are, besides, the sensations from which we derive the idea of resistance, in all its modifications, from that of air, to that of adamant. There are also sensations which are not common to all objects, but peculiar to some; as smell, peculiar to odorous bodies; taste, to sapid; and sound, to sonorous ones.

Now, though the most remarkable case of the associations among those feelings, is that between colour, and extinction and figure, they are all blended by association into one idea; which, though in reality a cluster of ideas, affects us in the same manner as if it were a single idea; an idea, the parts of which we detect by an analysis, which it requires some training to be able to make.

With the colour of the rose, the size and figure of the rose,—which are the predominant ideas,—I associate the idea of that modification of hardness and softness, which belongs to the rose; its degree of resistance, in short; also its smell, and its taste. These associations have been formed, as other associations are, by repetition. I have had so uniformly the sight, along with the handling, these, along with the smell, and the taste—of the rose, that they are always called up together, and in the closest combination.

Now then let us ask, what we mean, when we affirm, that the rose exists. In this meaning are undoubtedly included the above sensations, in a certain order. I see the rose on the garden wall, and I affirm that it exists: that is, along with my present sensation, the sight of the rose, I have the ideas of a certain order of other sensations. These are, first, the idea of distance, that is, the idea of the feelings involved in the act of going to the rose; after this, the idea of the feelings in handling it; then in smelling, then in tasting it; all springing up by association with the sight of the rose. It is said, we believe we should have these sensations. That is, we have the idea of these sensations inseparably united one with the other, and inseparably united with the idea of ourselves as having them. That this alone constitutes belief, in the remarkable case of the association of extension and figure with the sensations of sight, has already been seen; that this alone constitutes it, in many other remarkable cases, will be seen as we proceed; and in no case can it be shewn, that any thing more is included in it.

In my belief, then, of the existence of an object, there is included the belief, that, in such and such circumstances, I should have such and such sensations. Is there any thing more? It will be answered immediately, yes: for that, along with belief in my sensations as the *effect*, there is belief of something as the *cause*; and that to the

*cause*, not to the *effect*, the name object is appropriated.

This is a case of Belief, which deserves the greatest possible attention. It is acknowledged, on all hands, that we know nothing of objects ; but the sensations we have from them. There is a cause, however, of those sensations, and to that we give the name object : or, rather, there is a cluster of causes, corresponding with the cluster of sensations. Thus, when I see, and handle, and smell, and taste the rose, there is a cause of the sensation red, a cause of the sensation soft, a cause of the sensation round, a cause of the smell, and a cause of the taste ; and all these causes are united in the rose. But what is the rose, beside the colour, the form, and so on ? Not knowing what it is, but supposing it to be something, we invent a name to stand for it. We call it a *substratum*. This substratum, when closely examined, is not distinguishable from Cause. It is the cause of the qualities ; that is, the cause of the causes of our sensations. The association then, is this. To each of the sensations we have from a particular object, we annex in our imagination, a cause ; and to these several causes we annex a cause, common to all, and mark it with the name substratum.

This curious case of association we now proceed to develop. The word cause, means the



antecedent of a consequent, where the connexion is constant. This has been established on such perfect evidence, that it is a received principle of philosophy. More of the evidence of this important principle will appear as we go on. Here we shall take the proposition for granted.

Not only are we, during the whole period of our lives, witnesses of an incessant train of events; that is, of antecedents and consequents, between which, for the greater part, the order is constant; but these constant conjunctions are, of all things in the world, what we are the most deeply interested in observing; for, on the knowledge of them, all our power of obtaining good and avoiding evil depends. From this, it necessarily follows, that between none of our ideas is the association more intimate and intense, than between antecedent and consequent, in the order of events. Whenever we perceive an event, the mind instantly flies to its antecedent. I hear words in the street; *event*: some one, of course, is making them; *antecedent*. My house is broken, and my goods are gone; *event*: a thief has taken them; *antecedent*. This is that remarkable case of association, in which the combination is *inseparable*; a case of so much importance in explaining some of the more mysterious phenomena of thought. Other instances of this remarkable phenomenon, to which we have already had occasion to advert, are, the

sight of an object, and the ideas of its distance, its extension, and figure ; the idea of colour, and the idea of extension ; the idea of an object, and the idea of position and unity ; the idea of one of my sensations, and the idea of myself. In no instance is this inseparable association more perfect, or its consequences more important, than in that between an event, and its antecedent. We cannot think of the one, without thinking of the other. The two ideas are forced upon us at the same time ; and by no effort of ours can they be disjoined. So necessarily, from the first moment of experience, are we employed in observing the constant conjunctions of events ; and so deeply are we interested, in looking out for, and knowing the constant antecedent of every event, that the association becomes part of our being. The perception, or the idea, of an event, instantly brings up the idea of its constant antecedent ; definite and clear, if the antecedent is known ; and indefinite and obscure, if it is unknown. Still, the idea of an event, of a change, without the idea of its cause, is impossible. That a cause means, and can mean nothing to the human mind, but constant antecedent, is no longer a point in dispute.

Of this remarkable case of association, that which we call “ Our Belief in external Objects ” is one of the most remarkable instances. Of the sensations, of sight, of handling, of smell, of

taste; which I have from a rose, each is an event ; with each of those events, I associate the idea of a constant antecedent, a cause ; that cause unknown, but furnished with a name, by which it may be spoken of, namely, quality ; the quality of red, the cause of the sensation red ; the qualities of consistence, extension and figure, the causes of the sensations of handling ; the qualities of smell and taste, the causes of the sensations of smell and taste. Such is one part of the process of association in this case. Another is that by which the ideas of those sensations are so intimately united, as to appear not several ideas, but one idea, the idea of a rose. We have now two steps of association ; that of the several sensations into one idea ; that of the several sensations each with a separate cause. But we do not stop here ; for, as in a train of events, consisting of several links, A, B, C, D, and so on, though C is the antecedent or cause of D, it is itself the consequent or effect of B ; and in all cases, when we have found the cause of any particular event, we have still to find out what was the cause of that cause. In this manner, when our habit of association has carried us from our sensations to the causes of them, the same habit carries us still farther.

As each of our sensations must have a cause, to which, as unknown, we give the name quality ; so each of those qualities must have a cause.

And as the ideas of a number of sensations, concomitant in a certain way, are combined into a single idea ; as that of rose, that of apple ; the unity, which is thus given to the effects, is of course transferred to the supposed causes, called qualities : they are referred to a common cause. To this supposed cause of supposed causes, we give a name ; and that name is the word *Substratum*.

It is obvious, that there is no reason for stopping at this *Substratum* ; for, as the sensation suggested the quality, the quality the substratum, the substratum as properly leads to another antecedent, another substratum, and so on, from substratum to substratum, without end. These inseparable associations, however, rarely go beyond a single step, hardly ever beyond two. The Barbarian, in accounting for the support of the earth, placed it on the back of a great elephant, and the great elephant on the back of a great tortoise ; but neither himself, nor those whom he instructed, were carried by their habits of association any farther.

Such appear to be the elements included in our belief of the existence of objects acting on our senses. We have next to unfold the case of belief in the present existence of objects not acting on our senses.

Of this Belief, there are two cases : 1, Belief in the existence of objects, which we have not

perceived ; 2, Belief in the existence of objects, which we have perceived.

The first of these, is a case of the Belief in testimony ; which is to be explained hereafter. What we are to examine at the present moment, then, is, our Belief in the existence of objects, which, though not now present to our senses, have been so at a previous time. Thus, I believe in the present existence of St. Paul's, which I saw this morning.

In tracing the elements of this Belief, it is obvious in the first place, that in so far as it is founded on my past sensations, memory is concerned in it. But Memory relates to *past* events, Belief in which, is to be considered under a following head. This part of the developement, therefore, we postpone.

But, beside Memory, what other element is concerned in it ? There is evidently an anticipation of the future. In believing that St. Paul's exists, I believe, that whenever I am in the same situation, in which I had perception of it before, I shall have perception of it again. But this Belief in future events, is also a case, which remains to be considered under a subsequent head. This, therefore, is another part of the developement, which must be postponed.

I not only believe, that I shall see St. Paul's, when I am again in St. Paul's Churchyard ; but I believe, I should see it if I were in St. Paul's



Churchyard this instant. This, too, is also a case, of the anticipation of the future from the past, and will come to be considered under the subsequent head already referred to.

Besides these cases, the only one which remains to be considered, is, my Belief that, if any creature whose senses are analogous to my own, is now in St. Paul's Churchyard, it has the present sensation of that edifice.

My belief in the sensations of other creatures, is wholly derived from my experience of my own sensations. The question is, How it is derived. That it is an inference from similitude, will not be denied. But what is an inference from similitude?

I have no direct knowledge of any feelings but my own. How is it, then, that I proceed?

There are certain things which I consider as marks or signs of sensations in other creatures. The Belief follows the signs, and with a force, not exceeded in any other instance. But the interpretation of signs is wholly a case of association, as the extraordinary phenomena of language abundantly testify. And whenever the association, between the sign and the thing signified, is sufficiently strong to become inseparable, it is belief. Thus, rude and ignorant people, to whom the existence of but one language is known, believe the name by which they have always called an object to belong to it naturally, as much as its

shape, its colour, or its smell.\* Thus the perceptions of sight, mere signs of distance, magnitude, and figure, are followed by belief of the sight of them. And it is remarked, with philosophical accuracy, by Condillac, that if our constitution had been such, as to give us, instead of a different modification of sight, a different modification of smell, with each variety of distance, extension, and figure, we should have smelt distance, extension and figure, in the same manner as, by the actual conformation of our organs, we see them. Nor can we doubt the truth of the ingenious observation of Diderot, that if we had seen, and heard, and tasted, and smelt, at the ends of our fingers, in the same manner as we feel, we should have believed our mind to be in the fingers, as we now believe it to be in the head.

The process of our Belief in this case, then, is evidently, as follows. Our sensations are inseparably associated with the idea of our bodies. A man cannot think of his body without thinking of it as sensitive. As he cannot think of his own body without thinking of it as sensitive, so he cannot think of another man's body, which is

\* "It has been very justly remarked, that if all men had uniformly spoken the same language, in every part of the world, it would be difficult for us not to think [believe] that there is a natural connexion of our ideas, and the words which we use to denote them."—*Brown, Lectures*, ii. p. 80. 2d ed.

like it, without thinking of it as sensitive. It is evident that the association of sensitiveness, is more close with certain parts of the complex idea, our bodies, than with other parts; because the association equally follows the idea of horse, of dog, of fowl, and even of fish, and insect: and it will be found, I think, that there is nothing with which it is so peculiarly united as the idea of spontaneous motion. What is the reason we do not believe there is any sensation in the most curiously-organized vegetable; while we uniformly believe there is in the polypus, and the microscopic insect? Nothing whatsoever can be discovered, but a strong association which exists in the one case, and is wanting in the other. And this is one of the most decisive of all experiments to prove the real nature of Belief.

As, then, our belief in the sensations of other creatures is derived wholly from the inseparable association between our own sensations and the idea of our own bodies, it is apparent that the case in which I believe other creatures to be immediately percipient of objects, of which I believe that I myself should be percipient if I were so situated as they are, resolves itself ultimately into this particular case of my belief in certain conditional sensations of my own. This, again, as we have seen above, resolves itself into that other important law of Belief, which we are shortly to consider, the anticipation of the future from the past.

2. It comes next in order, that we notice our Belief in past existences ; that is, our present belief, that something had a present existence at a previous time.

Much of the developement of this case is included in the expositions already afforded. Our present belief, means, for one thing, a present idea ; our present belief of an existence, the idea of something existing. Of what associations the idea of something existing consists, we have just ascertained. Our present belief of a past existence, then, consists of our present idea of something existing, and the assignment of it to a previous time.

There are two cases of this assignment ; one, in which the thing in question had been the object of our senses ; another, in which it had not been the object of our senses.

When the thing, the existence of which we assign to a previous time, had been the object of our senses, and when the time to which we assign it is the time when it had so been the object of our senses, the whole is Memory. In this case, Memory, and Belief, are but two names for the same thing. Memory is, in fact, a case of Belief. Belief is a general word. Memory is one of the species included under it. Memory is the belief of a past existence, as Sensation is the belief of a present existence. When I say, that I remember <sup>that</sup> the burning of Drury-Lane Theatre ; the *remem-*

*bering* the event, and *believing* the event, are not distinguishable feelings, they are one and the same feeling, which we have two ways of naming. The associations included in Memory we have already endeavoured to trace. It is a case of that indissoluble connexion of ideas which we have found in the preceding article to constitute belief in present existences. When I remember the burning of Drury-Lane Theatre, what happens? We can mark the following parts of the process. First, the idea of that event is called up by association; in other words, the copies of the sensations I then had, closely combined by association. Next, the idea of the sensations calls up the idea of myself as sentient; and that, so instantly and forcibly, that it is altogether out of my power to separate them. But when the idea of a sensation forces upon me, whether I will or no, the idea of myself as that of which it was the sensation, I remember the sensation. It is in this process that memory consists; and the memory is the Belief. No obscurity rests on any part of this process, except the idea of *self*, which is reserved for future analysis. The fact, in the mean time, is indisputable; that, when the idea of a sensation, which I have formerly had, is revived in me by association, if it calls up in close association the idea of myself, there is memory; if it does not call up that idea, there is not memory; if it calls up the idea of myself, it calls up the idea of that



train of states of consciousness which constitutes the thread of my existence; if it does not call up the idea of myself, it does not call up the idea of that train, but some other idea. A sensation remembered, then, is a sensation placed, by association, as the consequent of one feeling and the antecedent of another, in that train of feelings which constitutes the existence of a conscious being. All this will be more evident, when what is included in the notion of Personal Identity is fully evolved.

The case of Belief in past existences which have not been the object of our senses, resolves itself into the belief, either of testimony, or of the uniformity of the laws of nature; both of which will, after a few intervening expositions, be fully explained.

3. The process which we denote by the words, "Belief in future events," deserves, on account of its importance, to be very carefully considered. That it is a complex process, will very speedily appear. Our endeavour shall be to resolve it into its elements; in doing which, we shall see whether it consists wholly of the elements with which we have now become familiar, or whether it is necessary to admit the existence of something else.

I believe that, to-morrow, the light of day will be spread over England; that the tide will ebb and flow at London-bridge; that men, and houses, and waggons, and carriages, will be seen in the

streets of this metropolis ; that ships will sail, and coaches arrive ; that shops will be opened for their customers, manufactories for their workmen, and that the Exchange will, at a certain hour, be crowded with merchants. Now, in all this, what is involved ?

First of all, in the Belief of any future event, there is, of course, involved the idea of the event. It will be immediately understood, from what has been already adduced, that there can be no Belief in any existence, without an idea of that existence. If I believe in the light of day tomorrow, I must have an idea of it ; if I believe in the flux and reflux of the water at London-bridge, I must have ideas of those several objects ; and so of all other things.

In the next place ; as it has already been shewn, that we cannot call up any idea by willing it ; and that none of our ideas comes into existence but by association ; the idea which forms the fundamental part of Belief, is produced by association. Ideas and association, then, are necessary parts of belief.

But there can be no idea of the future ; because, strictly speaking, the future is a nonentity. Of nothing there can be no idea. It is true we can have an idea of that which never existed, and which we do not suppose ever will exist, as of a centaur ; but this is a composition of the ideas of things which have existed. We can conceive a

sea of milk, because we have seen a sea, and milk ; a mountain of gold, because we have seen a mountain, and gold. In the same manner we proceed with what we call the future. The ideas which I have recently enumerated as parts of my belief of to-morrow ; the light of day, the throng in the streets, the motion of the tide at London-bridge, are all ideas of the past. The general fact, indeed, is not a matter of dispute. Our idea of the future, and our idea of the past, is the same ; with this difference, that it is accompanied with retrospection in the one case, anticipation in the other. What retrospection is, we have already examined. It is Memory. What Anticipation is, we are now to inquire ; and to that end it is necessary to recall, distinctly, some important facts which we have already established.

The fundamental law of association is, that when two things have been frequently found together, we never perceive or think of the one without thinking of the other. If the visible idea of a rose occurs to me, the idea of its smell occurs along with it ; if the idea of the sound of a drum occurs to me, the visible idea of that instrument occurs along with it.

Of these habitual conjunctions, there is none with which we are more incessantly occupied, from the first moment of our existence to the last, and in which we are more deeply interested, than that of antecedent and consequent. Of course

there is none between the ideas of which the association is more intimate and intense.

In fact, our whole lives are but a series of changes; that is, of antecedents and consequents. The conjunction, therefore, is incessant; and, of course, the union of the ideas perfectly inseparable. We can no more have the idea of an event without having the ideas of its antecedent and its consequents, than we can have the idea and not have it at the same time. It is utterly impossible for me to have the visible idea of a rose, without the idea of its having grown from the ground, which is its antecedent; it is utterly impossible for me to have the idea of it without the ideas of its consistence, its smell, its gravity, and so on, which are its consequents.

Of the numerous antecedents and consequents, forming the matter of our experience, some are constant, some are not. Of course the strength of the association follows the frequency. The crow is seen flying as frequently from east to west, as from west to east; from north to south, as from south to north; there is, therefore, no association between the flight of the crow and any particular direction. Not so with the motion of a stone let go in the air: that takes one direction constantly. The order of antecedent and consequent is here invariable. The association of the ideas, therefore, is fixed and inseparable. I can no more have the idea of a stone let go in the air, and not



have the idea of its dropping to the ground, than I can have the idea of the stone, and not have it, at the same time.

Where the sequence of two events is merely casual, it passes speedily away from the mind ; because it is not associated with the idea of any thing in which we are interested. The things in which we are interested, are the immediate antecedents of our pleasures and pains, and the ideas of them are all inseparably associated with constant conjunctions. The association of the ideas of a constant antecedent and consequent, therefore, has both causes of strength, the interesting nature of the ideas, and the frequency of conjunction, both at their greatest height. It follows, that it should be the most potent and inseparable of all the combinations in the mind of man.

As we are thus incessantly, and thus intensely, occupied with cases of constant conjunction, while cases of casual conjunction pass slightly over the mind, and quickly vanish from our consciousness, every event calls up the idea of a constant antecedent. The association is so strong, that the combination is necessary and irresistible. It often enough, indeed, happens, that we do not know the constant antecedent of an event. But never does it fail to call up the idea of such an antecedent ; and so inseparably, that we can as little have and not have the idea of an event, as we can have the idea of it, and not have the idea of



an inseparable antecedent along with it.—Ignorant, sometimes, of the constant antecedents of such and such events, we find them out by subsequent inquiry. Those cases of successful investigation still further strengthen the association. All that we call good, and all that we call evil, depend so entirely upon those constant conjunctions, that we are necessarily under the strongest stimulus to find them out, and to trace them with greater and greater accuracy. Thus we very often find a constancy of sequence, in which we acquiesce for a while; but after a time discover, that though constant, indeed, it is not immediate; for, that between the event and supposed antecedent, several antecedents intervene. At first we regard the ignition of the gunpowder, as the immediate antecedent of the motion of the ball. Better instructed, we find that a curious process intervenes. The constancy of the sequence is always more certain, the more nearly immediate the antecedent is. And so frequent is our detection of antecedents, more immediate than those which we have just observed, that an association is formed between the idea of every antecedent, and that of another antecedent, as yet unknown, intermediate between it and the consequent which we know. In no sequence do we ever feel satisfied that we have discovered all. We see a spark ignite the gunpowder, we see one billiard-ball impel another. Though we consider these as constant antecedents

and consequents, the idea of something intermediate is irresistibly conjoined. To this, though wholly unknown, we annex a name, that we may be able to speak of it. The name we have invented for this purpose is POWER. Thus, we conceive that it is not the spark which ignites the gunpowder, but the *power* of the spark; it is not one billiard-ball that moves the other, but the *power* of the ball. The Power, in this case, is a *supposed* consequent of the moving ball, and antecedent of the moved; and so in all other cases.

But the idea of an event does not call up the idea of its constant antecedent in closer and more intense association, than it calls up that of its consequent or consequents. I cannot have the idea of water, without the idea of its mobility, its weight, and other obvious properties. I cannot have the idea of rhubarb, without the idea of its nauseous taste, and other familiar properties. I cannot have the idea of the stroke of a sword upon the head of a man, without the idea of a wound inflicted on his head. I cannot have the idea of my falling from a ship into the middle of the sea, without the idea of my being drowned. I cannot have the idea of my falling from the top of a high tower, without having the idea of my being killed by the fall. If I have the first idea, the second forces itself upon me. The union has in it all that I mark by the word necessity; a sequence, constant, immediate, and inevitable.

This great law of our nature shews to us immediately in what manner our idea of the future is generated. Night has regularly been followed by morning. The idea of night is followed by that of morning; the idea of morning is followed by that of the events of the morning, the gradual increase of light, the occupations of men, the movements of animals and objects, and all their several successions from morning till night. This is the idea of to-morrow; to this succeeds another to-morrow; and an indefinite number of these to-morrows makes up the complex idea of futurity.

But I am told, that we have not only the idea of to-morrow, but the belief of to-morrow; and I am asked what that belief is. I answer, that you have not only the idea of to-morrow, but have it *inseparably*. It will also appear, that wherever the name belief is applied, there is a case of the indissoluble association of ideas. It will further appear, that, in instances without number, the name belief is applied to a mere case of indissoluble association; and no instance can be adduced in which any thing besides an indissoluble association can be shewn in belief. It would seem to follow from this, with abundant evidence, that the whole of my notion of to-morrow, belief included, is nothing but a case of the inevitable sequence of ideas.

This, however, is a part of our constitution, of

so much importance, that it must be scrutinized with more than ordinary minuteness.

Our first assertion was, that in every instance of belief, there is indissoluble association of the ideas. We shall confine our examples, for the present, to that case of belief which is more immediately under our examination; belief in the future. I believe, that if I put my finger in the flame of the candle, I shall feel the pain of burning. I believe, that if a stone is dropped in the air, it will fall to the ground. It is evident that in these cases, the belief consists in uniting two events, the antecedent, and the consequent. There are in it, therefore, two ideas, that of the antecedent, and that of the consequent, and the union of those ideas. The previous illustrations have abundantly shewn us, in what manner the two ideas are united by association, and *indissolubly* united. *These* ingredients in the belief are all indisputable. That there is any *other* cannot be shewn.

Our second assertion was, that cases of indissoluble association, admitted by all men to be this, and nothing more, are acknowledged as Belief. The facts (which any one may call to recollection), in proof of this assertion, deserve the greatest attention; they shew the mode of investigating some of the most latent combinations of the human mind.



No fact is more instructive, in this respect, than one, which more than once we have had occasion to make use of; the association of the ideas of distance, extension, and figure, with the sensations of sight. I open my eyes; I see the tables, and chairs, the floor, the door, the walls of my room, and the books ranged upon the walls; some of these things at one distance, some at another; some of one shape and size, some of another. My belief is, that I see all those particulars. Yet the fact is, that I see nothing but certain modifications of light; and that all my belief of seeing the distance, the size, and figure of those several objects, is nothing but the close and *inseparable* association of the ideas of other senses. There is no room for even a surmise that there is any thing in this case but the immediate blending of the ideas of one sense with the sensations of another, derived from the constant concomitance of the sensations themselves.

The case of hearing is perfectly analogous, though not so exact. I am in the dark; I hear the voice of one man, and say he is behind me; of another, and say he is before me; of another, he is on my right hand; another, on my left. I hear the sound of a carriage, and say, it is at one distance; the sound of a trumpet, and say, it is at another. In these cases I believe, not only that I hear a sound, but the sound of a man's voice, the sound of a carriage, the sound



of a trumpet. Yet no one imagines that my belief is any thing, in these cases, but the close association of the sounds with the ideas of the objects. I believe, not only that I hear the sound of a man's voice, but that I hear it behind me, or before me; on my right hand, or on my left; at this distance, or at that. The indisputable fact, in the mean time, is, that I hear only a modification of sound, and that the position and distance, which I believe I hear, are nothing but ideas of other senses, closely associated with those modifications of sound. That this state of consciousness, the result of an immediate irresistible association, is identical with the state which we name belief, is proved by a very remarkable experiment, the deception produced by ventriloquism. A man acquires the art of forming that peculiar modification of sound, which would come from this or that position, different from the position he is in; in other words, the sound which is associated, not with the idea of the position he is in, but that of another position. The sound is heard; the association takes place; we cannot help believing that the sound proceeds from a certain place, though we know, that is, immediately recognize, that it proceeds from another.

We must not be afraid of tediousness, while we adduce instances, in superabundance, to prove that indissoluble association (in one remarkable class of its cases, which, on account of their vast

importance, it is found expedient to distinguish by a particular name) is that state of consciousness, to which we have given the name of BELIEF.

We are all of us familiar with that particular feeling, which is produced, when we have turned ourselves round with velocity several times. We BELIEVE that the world is turning round.

The sound of bells, opposed by the wind, appears to be farther off. A person speaking through a trumpet appears to be nearer. Our experience is, that sounds decrease by distance. A sound is decreased by opposition of the wind; the idea of distance is associated; and the association being inseparable, it is belief. A sound is increased by issuing from a trumpet, the idea of proximity is associated, and the association being indissoluble, it is belief.

In passing, on board of ship, another ship at sea, we believe that she has all the motion, we none: though we may be sailing rapidly before the wind, she making hardly any progress against it.

When we have been making a journey in a stage coach, or a voyage in a ship, we believe, for some time after leaving the vehicle, that still we are feeling its motion; more especially just as we are falling asleep.

Nobody doubts, that these, and similar cases of belief, which are very numerous, are all to be resolved into pure association. What the associa-

tions are, we leave to be traced by the learner ; so many repetitions of the same process, though a useful exercise to him, would be very tedious here.

The Belief which takes place in Dreaming merits great attention in this part of our inquiry. No belief is stronger than that which we experience in dreaming. Our belief of some of the frightful objects, which occur to us, is such, as to extort from us loud cries ; and to throw us into such tremors and bodily agitations, as the greatest real dangers would fail in producing. Not less intense is our belief in the pleasurable objects which occur to us in dreams ; nor are the agitations which they produce in our bodies much less surprising. Yet there is hardly any difference of opinion about the real nature of the phenomena which occur in dreaming. That our dreams are mere currents of ideas, following one another by association ; not controlled, as in our waking hours, by sensations and will ; is the substance of every theory of dreaming. The belief, therefore, which occurs in dreaming, is merely a case of association ; and hence it follows that nothing more is necessary to account for Belief.

There is not a more decisive instance of the identity of Belief and Association, than the dread of ghosts, felt in the dark, by persons who possess, in its greatest strength, the habitual disbelief of their existence. That dread implies belief, and

an uncontrollable belief, we need not stay to prove. When the persons of whom we speak feel the dread of ghosts in the dark, the meaning is, that the idea of ghost is irresistibly called up by the sensation of darkness. There is here, indisputably, a case of indissoluble association; nor can it be shewn that there is any thing else. In the dark, when this strong association is produced, there is the belief; not in the dark, when the association is not produced, there is no belief.

Few men, except those who are accustomed to it, could walk on the ridge of a high house without falling down. Yet the same men could walk with perfect security, on similar footing, placed on the ground. What is the interpretation of this contrariety? Fear, we are told, is that which makes the inexperienced person fall. But fear implies belief. There is nothing, however, in the case, but the intense association of the idea of his falling, with his sight of the position in which he is placed. In some persons this idea is so easily excited, that they cannot look down from even a very moderate height, without feeling giddy, as they call it; that is, without having the apprehension; in other words, the belief, of falling.\*

\* The same account, in substance, of some of the last of these phenomena, is given by Dr. Brown; and it may aid the conceptions of the learner, to observe the different modes of exposition used by two different writers.

“ There can be no question, that he who travels in the same carriage, with the same external appearances of every kind by



From these illustrations, then, it does not appear that the anticipation of the future from the past, contains in it any thing peculiar. So far from standing by itself, a phenomenon *sui*

which a robber could be tempted or terrified, will be in equal danger of attack, whether he carry with him little of which he can be plundered, or such a booty as would impoverish him if it were lost. But there can be no question also, that though the probabilities of danger be the same, the fear of attack would, in these two cases, be very different; that, in the one case, he would laugh at the ridiculous terror of any one who journeyed with him, and expressed much alarm at the approach of evening; and that, in the other case, his own eye would watch suspiciously every horseman who approached, and would feel a sort of relief when he observed him pass carelessly and quietly along at a considerable distance behind.

“ That the fear, as a mere emotion, should be more intense, according to the greatness of the object, might indeed be expected; and if this were all, there would be nothing wonderful in the state of mind which I have now described. But there is not merely a greater intensity of fear, there is, in spite of reflection, a greater belief of probability of attack. There is fear, in short, and fear to which we readily yield, when otherwise all fear would have seemed absurd. The reason of this it will perhaps not be difficult for you to discover, if you remember the explanations formerly given by me, of some analogous phenomena. The loss of what is valuable in itself, is of course a great affliction. The slightest possibility of such an evil makes the evil itself occur to us, as an object of conception, though not at first, perhaps, as an object of what can be termed fear. Its very greatness, however, makes it, when thus conceived, dwell longer in the mind; and it cannot dwell long, even as a mere conception, without exciting, by the common influence of suggestion, the different states of mind, associated with the conception of any great evil; of which associate or resulting states, in such circumstances, fear is one of the most constant and prominent. The fear is thus readily excited as an associate feeling; and when the fear has once been excited, as a mere associate feeling, it continues to be still more readily suggested again, at every moment, by the objects that suggested it, and with the perception or conception of



*generis*; it is included in one of the most general of the laws of the human mind. When Professor Stewart, therefore, and other writers, erect it into an object of wonder, a prodigy, a thing falling within no general rule; and tell us they can refer

which it has recently co-existed. There is a remarkable analogy to this process, in the phenomena of giddiness, to which I have before more than once alluded. Whether the height on which we stand, be elevated only a few feet, or have beneath it a precipitous abyss of a thousand fathoms, our footing, if all other circumstances be the same, is in itself equally sure. Yet though we look down, without any fear, on the gentle slope, in the one case, we shrink back in the other case with painful dismay. The lively conception of the evil which we should suffer in a fall down the dreadful descent, which is very naturally suggested by the mere sight of the precipice, suggests and keeps before us the images of horror in such a fall, and thus indirectly the emotions of fear, that are the natural accompaniments of such images, and that but for those images never would have arisen. We know well, on reflection, that it is a footing of the firmest rock, perhaps, on which we stand, but in spite of reflection, we feel, at least, at every other moment, as if this very rock itself were crumbling or sinking beneath us. In this case, as in the case of the traveller, the liveliness of the mere conception of evil that may be suffered, gives a sort of temporary probability to that which would seem to have little likelihood in itself, and which derives thus from mere imagination all the terror that is falsely embodied by the mind in things that exist around.

“It is not, then, any simple ratio of probabilities which regulates the rise of our hopes and fears, but of these combined with the magnitude or insignificance of the objects.” *Lectures on the Philosophy of the Human Mind*. Lecture LXV., vol. iii., p. 345—347. 2d ed.

Notwithstanding this, the ideas of Dr. Brown were so far from being clear and settled on the subject, that in the same work, Lecture VI., v. i., p. 115, he *seems* to affirm, that belief cannot be accounted for by association, but must be referred to instinct; though it is necessary to use the word *seems*, for it is not absolutely certain that he does not by *instinct* mean association.

it to nothing but instinct ; which is as much as to say, to nothing at all ; the term instinct, in all cases, being a name for nothing but our own ignorance ; they only confess their failure in tracing the phenomena of the mind to the grand comprehensive law of association ; to the admission of which, in its full extent, they seem to have had a most unaccountable, and a most unphilosophical aversion ;—as if that simplicity, according to which one law is found included in a higher, and that in a yet higher, till we arrive at a few which seem to include the whole, were not as much to be expected in the world of mind, as in the world of matter.\*

We have now then explored those states of Consciousness which we call Belief in existences ;—Belief in present existences ; Belief in past existences ; and Belief in future existences. We have seen that, in the most simple cases, Belief consists in sensation alone, or ideas alone ; in the more complicated cases, in sensation, ideas, and association, combined ; and in no case of belief has any other ingredient been found.

In accounting for belief in present objects not acting on the senses,—it appeared, that a certain

\* Locke, at a period subsequent to the publication of his *Essay*, seems to have become more sensible of the importance of association. These are his words :—“ I think I shall make some other additions to be put into your Latin translation, and particularly concerning the connexion of ideas, which has not, that I know, been hitherto considered, and has, I guess, a greater influence upon our minds, than is usually taken notice of.”—*Locke, Lett. to Molineux, April 26th, 1695.*

anticipation of the future entered, for so much, into this compound phenomenon; the explanation of which part we were obliged to leave, till the anticipation of the future had undergone investigation. We have now seen that this part, as well as the rest, consists of association. The whole, therefore, of this case of belief, is now resolved into association.

Mr. Locke, whose expositions of any of our mental phenomena are almost always instructive, even when they stop short of being complete, has given the above account of belief precisely, in one remarkable and very extensive class of cases; those in which the belief is unfounded; which he denominates prejudices.

“There is,” he says,\* “scarce any one that does not observe something that seems odd to him, and is in itself really extravagant in the opinions, reasonings, and actions, of other men.

“This sort of unreasonableness is usually imputed to education and prejudice; and for the most part truly enough; though that reaches not the bottom of the disease, nor shews distinctly enough whence it rises, or wherein it lies.

“Education is often rightly assigned for the cause; and prejudice is a good general name for the thing itself; but yet, I think, he ought to look a little farther, who would trace this sort of madness to the root it springs from, and so ex-

\* Essay on the Human Understanding, B. II., Ch. 33.

explain it, as to shew whence this flaw has its original in very sober and rational minds, and wherein it consists.”

Mr. Locke affords the explanation, which he thought necessary, to be given, and proceeds as follows.

“ Some of our ideas have a natural correspondence and connexion one with another. It is the office, and excellence, of our reason, to trace these ; and hold them together in that union and correspondence, which is founded in their peculiar beings.

“ Besides this, there is another connexion of ideas, wholly owing to chance or custom. Ideas, that in themselves are not at all of kin, come to be so united in some men’s minds, that it is very hard to separate them. They always keep in company ; and the one no sooner at any time comes into the understanding, but its associate appears with it. And if they are more than two which are thus united, the whole gang, always inseparable, shew themselves together.

“ This wrong connexion, in our minds, of ideas in themselves loose and independent of one another, has such an influence, and is of so great force, to set us awry in our actions, as well moral as natural, passions, reasonings, and notions themselves ; that perhaps there is not any one thing that deserves more to be looked after.

“ The ideas of goblins and sprights have really



no more to do with darkness than light. Yet let but a foolish maid inculcate these often in the mind of a child, and raise them there together, possibly he shall never be able to separate them again so long as he lives ; but darkness shall ever afterwards bring with it those frightful ideas, and they shall be so joined, that he can no more bear the one than the other.

“ A man receives a sensible injury from another ; thinks on the man and that action over and over ; and by ruminating on them strongly, or much in his mind, so cements those two ideas together, that he makes them almost one.”

“ When this combination is settled, and while it lasts, it is not in the power of reason to help us and relieve us from the effects of it. Ideas in our minds, when they are there, will operate according to their nature and circumstances. And, here, we see the cause why Time cures certain affections, which reason, though in the right, has not power over, nor is able, against them, to prevail with those who are apt to hearken to it in other cases.”

After adducing various examples, to illustrate the effect of these associations, in producing both vicious affections, and absurd opinions, he thus concludes :

“ That which thus captivates our reasons, and leads men blindfold from common sense, will, when examined, be found to be what we are



speaking of. Some independent ideas of no alliance to one another, are, by education, custom, and the constant din of their party, so coupled in their minds, that they always appear there together ; and they can no more separate them in their thoughts, than if there were but one idea ; and they operate as if they were so. This gives sense to jargon, demonstration to absurdity, and consistency to nonsense ; and is the foundation of the greatest, I had almost said, of all, the errors, in the world."

Such is Mr. Locke's account of wrong belief, or error. But wrong belief is belief, no less than right belief. Wrong belief, according to Locke, arises from a bad association of ideas. Right belief, then, arises from a right association of ideas ; and this also was evidently Locke's opinion. It is, thus, association, in both cases ; only, in the case of wrong belief, the association is between ideas which ought not to be associated ; in the case of right belief, it is between ideas which ought to be associated. In the case of right belief, the association is between ideas which, in the language of Locke, "have a natural correspondence and connexion one with another : " in the case of wrong belief, it is between ideas, which "in themselves are not at all of kin, and are joined only by chance or custom." The ideas of the colour, shape, and smell of the rose ; the ideas of the spark falling on the gunpowder, and the

explosion,—are the sorts of ideas which are understood, by Mr. Locke, as having “a natural correspondence and connexion.” Ideas, such as those of darkness, with those of ghosts; of the miseries suffered at school, with the reading of books,—are the kind which he describes as “not of kin, and united in the mind only by chance or custom.” This, put into accurate language, means, that when the ideas are connected in conformity with the connexions of things, the belief is right belief; when the ideas are connected not in conformity with the connexions of things, the belief is wrong belief. The ideas, however, which are connected in conformity with the connexions among things, are connected by custom, as much as those which are connected not in conformity with those connexions. And the custom which unites them in conformity, is by far the most common of the two. It is, in fact, the regular, the ordinary, the standard custom, the other only constitutes the exceptions.

II. We have divided Belief into, 1, Belief in events, real existences; 2, Belief in testimony; 3, Belief in the truth of propositions.

Though this division, suggested by the ordinary forms of language, appeared to me didactically convenient, it is not logically correct. The expression, “Belief in testimony,” is elliptical. When completed, it becomes “Belief in events upon the evidence of testimony.” There are then, in reality,

only two kinds of Belief; 1. Belief in events or real existences; and 2. Belief in the truth of Propositions. But Belief in events or real existences has two foundations; 1. our own experience; 2. the testimony of others. The first of these we have examined, the consideration of the second remains.

When we begin, however, to look at the second of these foundations more closely, it soon appears; that it is not in reality distinct from the first. For what is testimony? It is itself an event. When we believe any thing, therefore, in consequence of testimony, we only believe one event in consequence of another. But this is the general account of our belief in events. It is the union of the ideas, of an antecedent, and a consequent, by a strong association. I believe it is one o'clock. Why? I have just heard the clock strike. *Striking of the clock*, antecedent; *one o'clock*, consequent; the *second* closely associated with the *first*. The striking of the clock is in fact a species of testimony. What does it testify? Not one event, but an infinite number of events, of which the term "one o'clock" is the name. At every instant in the course of the day, a number of events are taking place, some known to us, some unknown. The term one o'clock, is the name of those which take place at a particular point of the diurnal revolution. I believe in them all upon the testimony of the

clock. Why? From experience;—every one would directly and truly reply. I have found the events constantly, or at least very regularly, conjoined. From junction of the events, junction of the ideas; in other words, belief.

If proof, only, were wanted, this would suffice. For the purpose, however, of instruction, tuition, training,—a more minute developement of this important case of belief seems too useful to be dispensed with, notwithstanding the tediousness which so many repetitions of the same process is too likely to produce.

The watchman calling the hour, is a case of human testimony. That the account of our belief, in this case, is precisely the same as that in the case of the striking of the clock, it is wholly unnecessary to prove. But if our reliance on testimony in one case is pure experience, it may reasonably be inferred that it is so in all.

The forms of expression, which we apply to this case of belief, are very misleading. We say, “we believe a man,” or, “we believe his testimony.” “We attach belief to the man,” or, “to his testimony.” In these expressions, the name belief is applied to the wrong event; to the antecedent, instead of the consequent. What we mean to say is, that we believe the consequent, the thing testified, not the antecedent, the speaking of the words. The words the man uses, are, to us, sensations: belief that he uses the words, is not what is



meant by belief in his testimony. The same form of expression is perfectly absurd, when applied to other cases. We never say that we believe the flame of the candle, or we attach belief to the flame of the candle, when we mean to state the belief, that a finger will be burnt if it is put into the flame; we never say we believe the spark, when we mean to express our belief of an explosion when the spark falls upon the gunpowder.

The only question, then, is, in what manner the words of the testifier, the antecedent, come to be so united with the idea of the thing testified, as to constitute belief. And surely there is no difficulty here, either in conceiving, or admitting the process. Words call up ideas by association, solely. There is no natural connexion between them. The manner in which words are applied to events, I know most intimately by my own experience. I am constantly, and, from the first moment I could use them, have constantly been, employing words in exact conformity with events. Cases occur in which I do not, but they are few in comparison with those in which I do. It has been justly remarked, that the greatest of liars speak truth a thousand times for once that they utter falsehood. The connexion between the use of words, and the idea of conformable existences, is, of course, established into one of the strongest associations of the human mind. In other words, belief, in consequence of testimony, is, strictly,



a case of association. That we interpret other men's actions by our own, no one doubts; and that we do so entirely by association has already been proved.

In accounting for belief in past existences where it is not memory, we have found that it is resolvable into belief in testimony, and in the uniformity of the laws of nature; and the explanation of this we postponed till the cases of belief in testimony, and in the uniformity of the laws of nature, should be expounded. A few words will now suffice to connect the explanations formerly given with those which have now been presented.

The two cases, as we have seen, resolve themselves into one; as belief in testimony is but a case of the anticipation of the future from the past; and belief in the uniformity of the laws of nature is but another name for the same thing.

I believe the event called the fire of London, upon testimony. I believe that the stranger who now passes before my window, had a father and mother, was once an infant, then a boy, next a youth, then a man, and that he has been nourished by food from his birth; all this, from my belief in the uniformity of the laws of nature.

After the preceding developements, it is surely unnecessary to be minute in the analysis of these instances. I have had experience, of a constant series of antecedents and consequents, in the life of man;

generation, birth, childhood, and so on; as I have had of pain from putting my finger in the flame. A corresponding association is formed. If the sight of a stranger calls up the idea of his origin and progress to manhood, the ordinary train of antecedents and consequents is called up; nor is it possible for me to prevent it. The association is indissoluble, and is one of the cases classed under the name of Belief.

The explanation is still more simple of my belief in the fire of London. The testimony in this case is of that sort which I have always experienced to be conformable to the event. Between such testimony, and the idea of the event testified, I have, therefore, an indissoluble association. The testimony uniformly calls up the idea of the reality of the event, so closely, that I cannot disjoin them. But the idea, irresistibly forced upon me, of a real event, is Belief.

It is in this way that belief in History is to be explained. It is because I cannot resist the evidence; in other words, because the testimony calls up irresistibly the idea, that I believe in the battle of Marathon, in the existence of the Thirty Tyrants of Athens, in that of Socrates, Plato, and so on.

III. We come now to what we set out with stating as the third case of Belief; but which, as there are in reality but two kinds of belief, is, strictly speaking, the second,—I mean Belief in

the Truth of Propositions ; in other words, verbal truths.

The process by which this Belief is generated, or rather the combination wherein it consists, has, by the writers on Logic, at least those in the Latin and modern languages, been called JUDGMENT. This, however, is a restricted sense. In general, the word Judgment is used with more latitude. Sometimes it is nearly co-extensive with Belief, excluding hardly any but the sudden and momentary cases. We should hardly say, A man *judges* there are ghosts, who is afraid of them in the dark, but firmly believes his fear is unfounded ; or *judges* the surgeon to be noxious, whom he shudders at the sight of, from recollection of the terrible operation which he underwent at his hands. In all cases, however, either of deliberate or well-founded belief, we seem to apply the word judgment without impropriety. I judge that I see the light, that I hear the drum, that my friend speaks the truth, that water is flowing in the Ganges.

All Belief of events, except that of our present sensations, and ideas, consists, as we have seen, in the combination of the ideas of an antecedent and a consequent. The antecedent is sometimes simple, sometimes compound, being not one event, but various events taken together. These varieties in the antecedent constitute two distinguishable cases of belief. The last of them, that in

which the antecedent is complex, is that in which the term judgment is most commonly applied. Again, there are two cases of complex antecedent, one, in which all the events are concordant; another, in which they are not all concordant. It is to this last case that the term judgment is most peculiarly applied. Thus, it is not usual to say, that we judge we shall feel pain if we put a finger in the flame of the candle. But if we saw two armies ready to engage, one of which had considerable superiority, both in numbers and discipline, we should say we judge that it would gain the victory. This case, however, of belief, where the antecedent is complex, will receive additional illustration farther on. We have now to consider the case of Belief in the truth of propositions.

PROPOSITION is a name for that form of words which makes a predication. What Predication is, of what parts it consists, what end it serves, and into how many kinds it is divided, we have already explained. It remains to inquire what is meant by the TRUTH of a Predication, and what state of consciousness it is which is called the recognition or BELIEF of that truth.

Predication consists essentially in the application of two marks to the same thing. Of this there are two remarkable cases; one, That in which two names of equal extent are applied to the same thing; another, That in which two names, one



of less, another of greater extent, are applied to the same thing. The questions we have to resolve are, What is meant by truth in these cases ; and, What is the process, or complex state of consciousness, which is called assent to the proposition, or belief of it.

And, first, as to the case of two names of equal extent, as when we say, "Man is a rational animal;" here the two names are, "Man," and "Rational animal," exactly equivalent; so that "man" is the name of whatever "rational animal" is the name of; and "rational animal" is the name of whatever "man" is the name of. This coincidence of the names is all that is meant by the truth of the proposition; and my recognition of that coincidence is another name for my belief in its truth.

Now, how is it that I recognise two names as equivalent? About this, there will not be any dispute. I recognise the meaning of names solely by association. I recognise that such a name is of such a meaning, by association. I recognise that another name is of the same signification, by the same means. That I recognise the meaning of the last, whatever it is, by association, cannot be doubted, because it is by this that the meaning of every word is established. There is, however, another fact; that I recognise the meaning in the second case, as the same with the meaning in the first case. What is the process of this recognition? The word "Man" is the mark or



name of a certain cluster of ideas. A certain cluster of ideas I know to be what it is, by having it. Having it, and knowing it, are two names for the same thing. Having it, and having it again, is knowing it, and knowing it again; and that is the recognition of its sameness. It is a single name for the two states of consciousness. This, then, is all that is meant by our belief in the truth of a proposition, the terms of which are convertible, or of equal extent.

When of two names, applied to the same thing, one is of less, another of greater extent, the association is more complex; but in that is all the difference. Thus, when I believe the truth of the proposition, "Man is an animal," the meaning of the name "man" is called up by association, and the meaning of the name "animal" is called up by association. Thus far is certain. But there is something further. I recognise, that "animal" is a name of whatever "man" is a name of, and also of more. In having the meaning of the name "man" called up by association, that is, in having the ideas, I recognise that "man" is a name of James, and John, and Homer, and Socrates, and all the individuals of the class. This is pure association. In having the meaning of the name "animal" called up by association, I recognise that it is a name of James, and John, and all the individuals of the same class, as well as of all the individuals of other classes; and this is all that is meant by my Belief in the truth

of the proposition. Man is the name of one cluster of ideas; animal is the name of a cluster, including both this and other clusters. The latter cluster is partly the same with, and partly different from, the former. But having two clusters, and knowing them to be two, is not two things, but one and the same thing; knowing them in the case in which I call them same, and knowing them in the case in which I call them different, is still having them, having them such as they are, and nothing besides. In this second case also, of the belief of a proposition, there is, therefore, nothing but ideas, and association.

We have already shewn, under the head NAMING, when explaining the purpose to which Predication is subservient, that all Predication may be strictly considered as of one kind, the application to the same thing of another name of greater extent; in other words, that Predication by what Logicians call the Difference, Property, or Accident of a thing, may be reduced to Predication by the Genus or Species; but as there is a seeming difference in these latter cases, a short illustration of them will probably be useful.

Thus, suppose I say, "Man is rational," and that I choose to expound it, without the aid of the word animal, understood; what is there in the case? The word "man," marks a certain cluster of ideas. "Rational" marks a portion of that cluster. In the cluster marked "man," the

cluster marked "rational," is included. To recognise this, is also called believing the proposition. But to have one cluster of ideas, and know what it is; then another, and know what it is, is merely to have the two clusters. To have a second cluster, part of a first, and to know that it is a part of the first, is the same thing.

The peculiar property of that class of words to which "Rational" belongs, must here be recollected. They are the *connotative* class. Beside marking something peculiarly, they mark something else in conjunction; and this last, they are said to *connote*. Thus the word "rational," beside the part of the cluster, man, which it peculiarly marks, connotes, or marks in conjunction with it, the part included under the word animal.

It will be easy to apply the same explanation to all other cases. I say, the rose is red. Red is a connotative term, distinctively marking the idea of red. The idea of red is part of the cluster I mark by the word rose.

Take a more obscure expression; Fire burns. It is very obvious, that in the cluster of ideas I mark by the word fire, the idea of burning is included. To have the idea, "fire," therefore, and the idea, "burning," called up by the names standing in predication,—is to believe the proposition.

The Predications, "Virtue is lovely," "Vice is hateful," and the like, all admit of a similar exposition. In the cluster "virtue," the idea of

loveliness is included ; in the cluster “ vice,” that of hatefulness is included. Such propositions, therefore, merely say, that what is a part of a thing, is a part of it. The two words call up the two ideas ; and to have two ideas, one a part of another, and know that one is part of another, is not two things, but one and the same thing. To have the idea of rose, and the idea of red, and to know that red makes part of rose, is not two things, but one and the same thing.

Little more is necessary to explain this case of Belief in the truth of Propositions. Propositions are formed, either of general names, or particular names, that is, names of individuals. Propositions consisting of general names are by far the most numerous class, and by far the most important. The preceding exposition embraces them all. They are all merely verbal ; and the Belief is nothing more than recognition of the coincidence, entire, or partial, of two general names.

The case of Propositions formed of particular names, is different, and yet remains to be explained. “ Mr. Brougham made a speech in the House of Commons on such a day.” The Predicate, “ making a speech in the House of Commons,” is neither general, so as to include the subject, “ Mr. Brougham,” as in a species ; nor is the cluster of ideas, marked by the predicate, included in the cluster marked by the subject, as a part in its



whole. The proposition marks a case, either of experience, or of testimony. If I heard the speech, the proposition is an expression of the Memory of an event ; Mr. Brougham, antecedent, and making a speech, consequent ; and the Belief of the Proposition, is another name for the Memory of the Event. If I did not hear it, Belief of the proposition, is belief in the testimony of those who say they heard it.

As all propositions relating to individual objects are, after this manner, marks either of other men's testimony, or of our own experience, what belief, in these cases, is, has already been explained.

Propositions relating to individuals may be expressions either of past, or of future events. Belief in past events, upon our own experience, is memory ; upon other men's experience, is Belief in testimony ; both of them resolved into association. Belief in future events, is the inseparable association of like consequents with like antecedents.

It is not deemed necessary to unfold these associations. It has been already done. It seems enough, if they are indicated here.



## CHAPTER XII.

## RATIOCINATION.

“ It would afford great light and clearness to the art of Logic, to determine the precise nature and composition of the ideas affixed to those words which have complex ideas ; *i. e.*, which excite any combinations of simple ideas, united intimately by association.”—*Hartley. Prop. 12, Corol. 3.*

RATIOCINATION is one of the most complicated of all the mental phenomena. And it is worthy of notice, that more was accomplished towards the analysis of it, at an early period in the history of intellectual improvement, than of any other of the complex cases of human consciousness.

It was fully explained by Aristotle, that the simplest case of Ratiocination consists of three propositions, which he called a syllogism. A piece of ratiocination may consist of one, or more syllogisms, to any extent ; but every single step is a syllogism.

A ratiocination, then, or syllogism, is first resolved into three propositions. The following may be taken as one of the simplest of all examples. "All men are animals : kings are men : therefore kings are animals."

Next, the Proposition is resolved into its proximate elements. These are three ; two Terms, one called the Subject, the other the Predicate, and the Copula. What is the particular nature of each of these elements we have already seen, and here, therefore, need not stay to inquire.

The ancient writers on Logic proceeded in their analysis, no farther than Terms. After this, they only endeavoured to enumerate and classify terms ; to enumerate and classify propositions ; to enumerate and classify syllogisms ; and to give the rules for making correct syllogisms, and detecting incorrect ones. And this, as taught by them, constituted the whole science and art of Logic.

What, under this head, we propose to explain, is—the process of association involved in the syllogism, and in the belief which is part of it.

That part of the process which is involved in the two antecedent propositions, called the premises, has been already explained. It is only, therefore, the third proposition, called the conclusion, which further requires exposition.

We have seen, that in the proposition, "All men are animals," Belief is merely the re-

cognition that the meaning of the term, "all men," is included in that of the term "animals," and that the recognition is a case of association. In the proposition also, "kings are men," the belief is merely the recognition, that the individuals named "kings," are part of the many, of whom "men," is the common name. This has already been more than once explained. And now, therefore, remains only to be shewn what further is involved in the third proposition, or conclusion, "kings are animals."

In each of the two preceding propositions, two terms or names are compared. In the last proposition, a third name is compared with both the other two; immediately with the one, and, through that, with the other; the whole, obviously, a complicated case of association.

In the first proposition, "all men are animals," the term, "all men," is compared with the term animals; in other words, a certain association, already expounded, takes place. In the second proposition, "kings are men," the term "kings," is compared with the term "all men;" comparison here, again, being only a name for a particular case of association. In the third proposition, "kings are animals," the name "kings," is compared with the name "animals," but mediately through the name, "all men." Thus, "kings," is associated with "all men," "all men," with "animals;" "kings," therefore, with

“ animals,” by a complicated, and, at the same time, a rapid, and almost imperceptible process. It would be easy to mark the steps of the association. But this would be tedious, and after so much practice, the reader will be at no loss to set them down for himself.

## CHAPTER XIII

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### EVIDENCE

“ In consequence of some very wonderful laws, which regulate the successions of our mental phenomena, the science of mind is, in all its most important respects, a science of analysis.”—*Brown's Lect.*, i., 108.

BEFORE leaving the subject of Belief, it will be proper to shew, in a few words, what is included, under the name Evidence. Evidence, is either the same thing with Belief, or it is the antecedent, of which Belief is the consequent.

Belief we have seen to be of two sorts: Belief of events; Belief of propositions.

Of events, believed on our own experience, the evidence of the present is sense; of the past, memory; and in these cases, the evidence and the belief are not two things, but one and the same thing. The lamp, which at this moment lights me, I say that I see burning, and that I believe it burning.



These are two names of one and the same state of consciousness.—“ I remember it was burning at the same hour last night,” and “ I believe it was burning at the same hour last night,” are also two expressions for the same thing.—In the simple anticipation of the future, from the past, also, the evidence, and the belief, are not two things, but one and the same thing. There is a close and inseparable association of the idea of a like antecedent, with the idea of a like consequent. This has not a single name, like memory; but, like memory, it is both evidence and belief.

The case of testimony is different. The Testimony is one thing, the Belief is another. The name Evidence is given to the testimony. The association of the testimony, with the event testified, is the belief.

Beside the belief of events which are the immediate objects of sense, of memory, and of anticipation (the consequence of sense and memory), and of those which are the immediate objects of testimony; there is a belief of events which are not the immediate objects of any of those operations. The sailor, who is shipwrecked on an unknown coast, sees the prints of a man's foot on the sand. The print of the foot is here called the evidence; the association of the print, as consequent, with a man, as antecedent, is called the belief. In this case, the sensation of one event,

the print of a foot on the sand, induces the belief of another event, the existence of a man. The sailor who has seen the mark, reports it to his companions who have not quitted the wreck. Instantly they have the same belief; but it is a remove farther off, and there is an additional link of evidence. The first event to them, is the affirmation of their companion; the second, the existence of the print; the third, that of the man. There is here evidence of evidence; the testimony, evidence of the print; the print, evidence of the man.

The companions of the sailor, having themselves gone on shore, perceive, indeed, no man, but see a large monkey, which leaves prints on the sand very much resembling those which had first been perceived by their companion. What is now the state of their minds? Doubt. But doubt is a name; what do we call by that name? A phenomenon of some complexity, but of which the elements are not very difficult to trace. There is, here, a double association with the print of the foot. There is the association of a man, and there is the association of a monkey. First, the print raises the idea of a man, but the instant it does so, it raises also the idea of a monkey. The idea of the monkey, displacing that of the man, hinders the first association from the fixity which makes it belief; and the idea of man, displacing that of monkey, hinders the second

association from that fixity which constitutes belief.

When evidence is complex ; that is, consists of more than one event ; the events may be all on the same side, or not all on the same side ; that is, they may all tend to prove the same event ; or some of them may tend to prove it, some may have an opposite tendency.

Thus, if after discovering the print on the sand, the sailors had seen near it a stick, which had any appearance of having been fashioned into a club, or a spear,—this would have been another event, tending, as well as the print on the sand, to the belief of the presence of men. The evidence would have been complex, but all on one side. The process is easy to trace. There is now a double association with the existence of men. The print of the foot excites that idea, the existence of the club excites that idea. This double excitement gives greater permanence to the idea. By repetition, the two exciting causes coalesce, and, by their united strength, call up the associated idea with greater force.

In the case of the appearance of the monkey, in which one of the events tended to one belief, the other to another, we have just seen that the effect is precisely contrary ; to lessen the strength of the association with the existence of a man, and to hinder its becoming belief.

These expositions may be applied with ease to the other cases of complex evidence, which can only consist of a greater or less number of events, either all tending to the belief of the same event, or some tending that way, some another; but all operating in the manner which has just been pointed out. Thus we may complicate the present case still further, by the supposition of additional events. After the appearance of the monkey, the sailors may discover, in the neighbourhood, the vestiges of a recent fire, and of the victuals which had been cooked by it. The association of human beings with these appearances is so strong, that, combined with the association between the print and the same idea, it quite obscures the association between the print and the monkey; and the belief that the place has inhabitants becomes complete. But suppose, further; that after a little observation, they discover an English knife, and fork, and a piece of English earthenware near the same place. The idea of an English ship having touched at the place, is immediately excited, and all the evidence of local inhabitants, derived from the marks of fire and cookery, is immediately destroyed. In other words, a new association, that with an English ship, is created, which completely supersedes the idea, formerly associated, that of inhabitants existing on the spot.

The whole of the events, which go in this manner to form a case of belief, or of doubt, or of disbelief, are called Evidence. And the association, which binds them together into a sort of whole, as antecedent, and connects with them the event to which they apply as consequent, and which constitutes the belief, doubt, or disbelief, very often goes by the names of "judgment," "judging of the evidence," "weighing the evidence," and so on.

In these cases of the belief of Events upon complicated evidence, there is an antecedent and a consequent; the antecedent consisting of all the events which are called evidence, the consequent of the event, or events evidenced; and lastly, there is that close association of the antecedent and the consequent, which we have seen already, in so many instances, constitutes belief.

We have now to consider, what we call evidence in the case of the Belief of Propositions.

There are two cases of the Belief of propositions. There is belief in the case of the single proposition; and there is belief of the conclusion of a syllogism, which is the result of a combination of Propositions.

We have seen what the process of belief in Propositions is. The subject and predicate, two names for the same thing, of which the predicate is either of the same extent with the subject, or



of a greater extent, suggest, each of them, its meaning; that is, call up, by association, each of them, its peculiar cluster of ideas. Two clusters of ideas are called up in connexion, and that a peculiar connexion, marked by the copula. To have two clusters of ideas, to know that they are two, and to believe that they are two, this is nothing more than three expressions for the same thing. To know that two clusters are two clusters, and to know that they are either the same, or different, is the same with having them. In this case, then, as in that of the belief of events, in sense and memory, the belief and the evidence are the same thing.

Belief of the conclusion of a syllogism, is preceded by two other beliefs. There is belief of the major proposition; belief of the minor proposition; by the process immediately above explained, in which the evidence and the belief are the same thing. These are the antecedent. There is, thirdly, belief of the conclusion, this is the consequent. The process of this belief has been so recently explained, that I do not think we need to repeat it. In this case, it is sometimes said, that the two premises are the evidence; sometimes it is said, that the ratiocination is the evidence; in the former of these applications of the word evidence, the belief of the concluding proposition of the syllogism is not included; in the last, it is. The ratiocination is the belief of all

the three propositions ; and, in this acceptation of the word, the evidence and the belief are not considered as two things, but one and the same thing. This, however, is only a difference of naming. About the particulars named, there is no room for dispute.

END OF VOL. 1.