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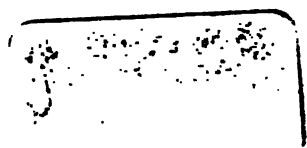
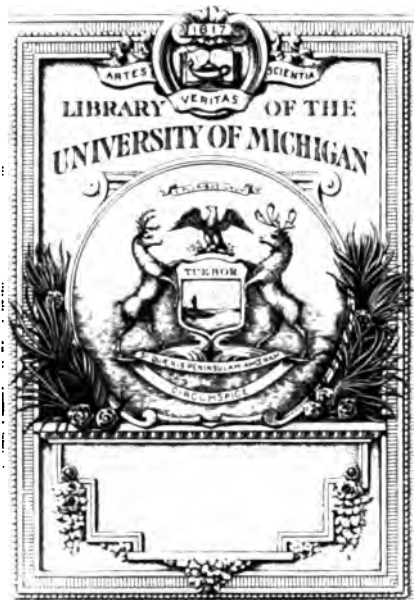
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1791

O F T H E
O R I G I N A N D P R O G R E S S
O F
L A N G U A G E.



James Mill, Lord Monboddo

Mutum ac turpe pecus —————
Donec verba, quibus voces sensusque notarent,
Nominaque inveniunt. HOR.

V O L. I.
S E C O N D E D I T I O N.
With large ADDITIONS and CORRECTIONS.

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ing to his nature, of which he is now no longer possessed; and, among others, he may have had the faculty of communicating his thoughts by articulate sounds, which were understood, as soon as uttered, by those who heard them. But this natural faculty, as well as others, we may suppose that he lost upon his fall; and as the curse then pronounced upon him was, that he should acquire every thing by his own labour and industry, he was obliged to invent language, together with the other arts of life. If all this does not satisfy, but it must be still held an article of faith, that language is either natural to man, even in this state of his existence, or revealed to him, and that this original language never could have been lost in any nation, by the many various calamities that have befallen the human race in different countries and different ages of the world, or that, if it were lost, it was again revealed; I have the comfort to think, that I am not the only one that has erred in this point; but that divines of great name, both ancient and modern, and even a father of the church, have been in the same, nay, a greater error: For they have affirmed positively what I

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with me likewise, that, before men used language, they conversed together by signs and inarticulate cries: That, from these last, language was formed: And that the first languages had a great deal of prosody, or musical tones, which he seems to think as natural to man as articulation. Thus far, therefore, I have the pleasure to find, that I agree with this author, who appears to be an ingenious man. But, as his book is chiefly upon the operations of the mind, so that a small part of it only is employed upon language, I do not think it could have been of great use to me. The subject, therefore, may still be considered as new; and so I find it appears, even to the most learned of my acquaintance, and whose studies have been employed particularly upon language. The reader must not, therefore, expect to find any thing perfect upon a subject so new, and of such variety and extent, even in this second edition, so much enlarged, and, I hope, likewise amended, by the many useful hints I have got from several, who have done me the favour to correspond with me upon occasion of the publication of the first edition. Among these, there

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have only supposed to be possible, namely, that language was invented by men, not revealed from heaven*.

When I began this work, I thought the subject was new and untouched by any author before me; but, in going on with it, I recollected, that I had read, in Mr Rousseau's treatise of the Inequality of mankind, something upon the subject. Having, therefore, looked again into that work, I found that this ingenious author had indeed started the inquiry, but had not prosecuted it far, having stuck at this difficulty, *Whether language was more necessary for the institution of society, or society for the invention of language.* In that treatise Mr Rousseau mentions a work of the Abbe de Condillac, member of the Royal Academy of Berlin, entitled 'An Essay on the Origin of Human Knowledge.' This work I have not seen; but I have read an extract from it; in the second volume of the Critical Review, by which I perceive, that he proceeds, as I do, upon the supposition that language was invented, of which he seems to have no doubt. He agrees

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* Book II. Cap. vii. p. 375. et seq.

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THE origin of an art so admirable and so useful as language, and which, to the eye of a philosopher, appears the most wonderful of all human arts, must be allowed to be a subject, not only of great curiosity, but likewise very important and interesting, if we consider, that it is necessarily connected with an inquiry into the original nature of man, and that primitive state in which he was, before language was invented; a subject of so much greater dignity and importance, by how much the works of God are nobler than those of men. For man in his natural state, is the **WORK OF GOD**; but, as we now see him, he may be said, properly enough, to be *the work of man*; and is often such a piece of workmanship, that we may apply to him what Shakespear says of bad players, *That some of Nature's journeymen seem to have made them, and not made them well; they imitate humanity so abominably.*

Nor is an inquiry into this original state a matter of mere speculation and curiosity, with-

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out use: For, if the history of any animal be a subject of useful knowledge, it is certainly that of our own species. Now, the history of man must be exceedingly imperfect without the knowledge of that original state, which is the ground-work and foundation of every other through which he has passed. Further, if it be true, as I most firmly believe it is, that the state in which God and nature have placed man is the best, at least, so far as concerns his body, and that no art can make any improvement upon the natural habit and constitution of the human frame; then, to know this natural state is of the highest importance, and most useful in the practice of several arts, and in the whole conduct of life. The object, for example, of the physician's art, must be to restore, as far as possible, the body to that natural state, which must therefore be the standard of the perfection of his art. The political philosopher, in like manner, in forming his plans of polity, will study to preserve the natural strength and vigour of the animal, (human art can do it,) by proper diet, exercise, and manner of life, and to prevent, as much as possible, the in-

dulgence of ease and bodily pleasure, by which the race of civilized men, in all nations, has been constantly declining from the earliest times, (while the animals living in the natural state continue invariably the same), and by which, not only families have been and are daily extinguished, but whole tribes and nations. And, *lastly*, every private man, though not directed by public wisdom, will, if he knows this natural state, and is wise, endeavour to bring himself back to it as much as is consistent with the state of society in which we live; and will, after the example of the great men of antiquity, endure, thro' choice, those hardships, as they are commonly thought, which the savage only endures through necessity, without knowing that they are absolutely necessary to his happiness.

But, of whatever importance it may be to us to know this state, we are so far removed from it, that even the philosophers among us, (one only excepted *,) seem to

* Mr Rousseau, a very great genius, in my judgement, but who has been thought whimsical and odd, for having said so much in commendation of the natural state of man.

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know nothing of it: And as to the vulgar, I believe it will be impossible to convince them, that such a state ever existed, or could exist. Nor need we much wonder at this, when we consider, that man is so much a creature of art, that it is a matter of nice discernment to separate what is artificial in him from what is purely natural. But, unless we know what man is by *nature*, we cannot be said to know the *natural history* of man. And it is really surprising, that in an age, in which natural history has been so diligently cultivated, this part of it, so much more interesting to us than any other, should have been neglected. His nature, as far as concerns the structure and organization of his body, has been sufficiently studied: But is not the natural state of his better part, the mind, much more deserving our inquiry? For my part, I do not know any speculation more curious, or more interesting, than to inquire what kind of animal the man of God and nature is, in contradistinction to what man has made himself.

My opinion upon this subject will, I know, be thought new and singular; but

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it is only an antient opinion revived ; for I have shewn that it was the opinion of the antient philosophers, as many as have treated of the original state of man before society or civilization *. Further, I have proved, by the testimony of historians and travellers, both ancient and modern, that, in fact, men have been found, very nearly, if not altogether, in that original state †. And I have made it, at least, highly probable, that it does at present actually exist in the woods of Angola, and other parts of Africa, where races of wild men, without the use of speech, are still to be found ‡. And, in order to account for the difference between such men and us, I have shewn, from several instances, the alteration that culture makes upon other animals, and likewise upon vegetables ||.

The inquiry, whether language be natural or not to man, has led me very far into the philosophy of mind ; a philosophy, which, of all others, is the most pleasing to

* Book II. Cap. vii.

† Book II. Cap. iii.

‡ Ibid. Cap. iv. v.

|| Ibid. Cap. v.

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me, as it takes its materials from nothing without us, but from the mind itself alone; and as it rests upon the clearest of all evidence, that which arises from consciousness. Such a philosophy, one should have thought, would have been long ago brought to perfection among us; and yet, if I am not greatly mistaken, I have shewn, that there are several discoveries in it still remaining to be made; or, what is the same thing, that have been made two thousand years ago, but forgotten or overlooked in this age. For I do not pretend to have invented any thing. The only merit I claim is that of having applied to better masters of philosophy than any now to be found.

As to the metaphysical philosophy in this volume, I have elsewhere made an apology for it *; and if, notwithstanding, I should be thought to have mixed too much of it with my speculations concerning language, I hope I shall be forgiven by the learned and pious reader, who will be pleased to see the contrast betwixt the religious and truly sublime metaphysics of the great ancient philosophers, and the impious absurdities,

* Book III. Cap. viii. p. 525.

by which the vain pretenders to philosophy of our time have disgraced this noblest of sciences.

If it be true, what I have heard, but can scarcely believe, that I have given offence to any sensible Christian, by what I have said concerning the natural state of man, and the invention of language; I flatter myself, that I have entirely removed it by the additions and explanations in this second edition. Had my philosophy led to any opinions tending to overturn the established religion of the country, I should have thought it my duty, as a good citizen, never to have published them, but to have kept them as secret, as I would have kept a poison that I had discovered. But the philosophy I have learned and which is no other than the philosophy of the primitive church, so far from having any tendency of that kind, lays down, as philosophical truths, some of the fundamental doctrines of Christianity, particularly, the fall of man from a more exalted state, in which he was once placed *. In that state, there were, no doubt, many faculties belong-

* Book I. Chap. x.

P A R T I.

B O O K I.

C H A P T E R I.

Definition of the Subject.—Whether Language be from Nature, or acquired Habit.

BY language I mean *the expression of the conceptions of the mind by articulate sounds*. These conceptions are either of *particulars*, i. e. individual things, or of *generals*. No language ever existed, or can be conceived, consisting only of the expression of individuals, or what is commonly called *proper names*: And the truth is, that these make but a very inconsiderable part of every language. What therefore constitutes the essential part of language, and makes it truly deserve that name, is the expression of *generals*, or *ideas*, according to the language of the philosophy that I have learned. For, as to the name of *general ideas*, by which they are commonly

inquiry becomes the more interesting, as well as of greater curiosity, when we consider, that it leads us back to what may be called the *origin* of the *human race*; since, without the use of reason and speech, we have no pretensions to *humanity*, nor can with any propriety be called *men*; but must be contented to rank with the other animals here below, over whom we assume so much superiority, and exercise dominion chiefly by means of the advantages that the use of language gives us. From this *birth* of human nature, as it may be called, we will endeavour to trace its progress to its state of *maturity*. This progress, in the individual, is very well known; but we propose here to exhibit the species itself in its *infancy*,—first mute; then lisping and stammering; next by slow degrees learning to speak, very lamely and imperfectly at first; but, at last, from such rude essays, forming an art the most curious, as well as most useful among men. The subject is, so far as I know, entirely new; no author, antient or modern, that has fallen into my hands, having professedly treated of it. And though I have met with hints concerning it in the course of my reading, they

are such as have rather excited than satisfied my curiosity.

These reasons have induced me to set down, and give to the public, my thoughts upon this subject, which are the fruit of much study and inquiry, continued with some interruptions for several years, and of many materials collected during that time. But if, notwithstanding, in this undiscovered country, where I am guided by no light or track, I have lost my way, I hope to be forgiven by every reader of sense and candour, who will allow at least this merit to my work, that I have opened a new field of speculation, in which even my errors may be of use, by serving as beacons to direct into the right course men of greater learning and abilities.

The work will be divided into *three* parts. The *first* will treat of the *origin* of language, and of the nature of the *first* languages; or, as they may be more properly called, rude essays towards language, which were practised before the *art* was invented.—The *second* will explain the nature of the *art*, shewing in what it chiefly consists, and how it differs from those first untaught attempts to speak. In

this part of my work, I will give an account of those parts of language which appear to me the most artificial, and of most difficult invention. I will also treat of *style*, or composition in words, as belonging to the art of language; and I think it will not appear foreign to my subject to say something likewise of *poetry* and *rhetoric*, being arts of which language furnishes the materials.—The subject of the *third* and *last* part will be the *corruption* of language; of which I shall endeavour to assign the causes, and trace the progress.—The first part will be chiefly philosophical, mixed however with a good deal of history, and facts, by which I shall endeavour to support my theories, and philosophical speculations. The two last parts will be grammatical and critical. The style will be plain and didactic, such as is suitable to a subject that is to be treated as a matter of science. It will not therefore have that mixture of the *rhetorical* and *poetical*, which is so common in the fashionable writings of this age, whatever the subject be, and which pleases the vulgar so much: For, as I do not write for the vulgar, I will not adapt my style, any more than my matter, to their taste.

known, it supposes, that the conceptions of individuals, that is, the perceptions of sense, are likewise ideas; from which it is necessary to distinguish the conceptions of generals by the name of *general ideas*. But I cannot approve of introducing into philosophy a language which confounds under one name two things so different in their natures, as the operations of *sense* and of *intellect*; a confusion which, in my apprehension, has given rise to very great errors in philosophy, and to some extravagant paradoxes, that have been advanced of late years, as repugnant to the common sense of mankind as to sound philosophy. The definition so understood I hold to be what is properly called *language*. For, though we say, *the language of looks*, and of *gestures*, or signs, such as our dumb persons use; also *the language of inarticulate cries*, by which the brutes signify their appetites and desires; yet, in all those senses, the word is used metaphorically, and not as it ought to be used in the style of science. And thus much may suffice at present for the definition of our subject. We shall endeavour, in the sequel, to make it fuller; and, particularly, we shall explain in what way language

Chap. I. PROGRESS OF LANGUAGE. 7

expresses, whether by signs natural or artificial.*

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* In this sense which I have given to *language* the Greek word *λογος* is commonly used, denoting both the *ideas*, and the sounds used to express them; that is, *sounds significant*. But it may be observed, that it is often used to denote only the principal part of speech; namely, the *ideas*, and that combination of them we call *reason*, which must necessarily precede the use of speech. This ambiguous signification of the word has given occasion to the distinction made in the Peripatetic school betwixt *λογος ενδιαιτητος*, and *λογος προφορικος*, that is, the inward operations of the mind, and those operations enunciated by speech. The not attending to this distinction has led translators into great mistakes, and even the translators of our sacred writings. For, in that famous passage in the beginning of St John's gospel, which contains one of the sublimest mysteries of the Christian theology, the Latin translator has rendered *λογος* by *verbum*. And, in like manner, our English translators have rendered it by *word*, and have made St John say, that *the word was God*, which, to me at least, does not convey any meaning at all: For how can I understand, that *word*, that is to say, *speech*, or ideas expressed by articulate voice, is *God*? But *λογος*, in this passage, is not *λογος προφορικος*, or *reason enunciated*; but it is *λογος ενδιαιτητος*, i. e. *reason in the mind of the Deity*, according to which every thing was made. This *reason* is the second person of the Christian Trinity, by whom we are told the visible world was created, and answers to the *θεος δημιουργος* of Plato, who is also the second person of his Trinity. For that Plato knew the doctrine of the Trinity (however he came by that knowledge) is evident: but he kept it *in απορησει*, not to be revealed but to those who were initiated in his philosophy. And the other two persons in

From this definition it appears, that language consists of two things; namely, sounds, and the conceptions of the mind signified by those sounds. The first is, in the truly philosophical language of my worthy and learned friend Mr Harris*,

his Trinity correspond likewise with the same persons in the Christian Trinity: for he has the supreme God, or God the Father, and also the $\psi\upsilon\chi\eta$ του κοσμου, which answers to the Holy Ghost. See *Eusebii Praepar. Evangel. lib. 11. cap. 14.—20.* from which passage it appears, that *Eusebius* understands $\lambda\omicron\gamma\omicron\varsigma$ in this passage of St John as I do; and he quotes a *Platonic* writer, one *Amelius*, who understands it so also, and wonders where that *Barbarian* (so he calls the Evangelist) had learned so sublime a theology, not knowing that this was the theology of the Jews many hundred years before his master *Plato* was born.

There are, I know, zealots who are much offended with my finding fault even with the Vulgate Translation, as it is called, of the Bible used in the Popish countries, and with our English translation, for following it rather than the Greek original. But their senseless clamour will not persuade me to retract what I have said, unless they can shew that any ancient father of the church, or modern divine, has said that *speech*, or any part of speech, was God; or that, in English, *word* does not denote a part of speech. And I am persuaded every sensible divine will thank me for clearing the sacred Text, containing such an important doctrine, from the imputation of so absurd a meaning.

* The Author of *Hermes*, a work that will be read and admired as long as there is any taste for philosophy and fine writing in Britain.

called the *material* part of language, and the other the *formal* part; a manner of speaking taken from the antient philosophy; according to which, every corporeal substance is composed of *matter* and *form*. The *matter* is supposed to be common to all bodies; but the *form* is peculiar to each, making it that which it is, in contradistinction to every thing else: As in this case the human voice, which makes the material part of language, is a matter common to other things, as, *e. g.* to music, and to inarticulate cries of different kinds; whereas the formal part, that is, the significancy of ideas, is peculiar to language, constituting what we call *a word*; which, though it had the matter, that is, the voice, and modified too by articulation, yet, if it signified nothing, would not deserve that name. Of these two parts of language, it is evident that the formal is by far the more excellent, by how much the thing signified is more excellent than the sign, and the mind than the body: For this part of language belongs altogether to the mind; whereas the other is no more than the operation of certain organs of the body.

The first thing to be considered in this

matter is, whether language be at all a work of *art*, or *acquired habit*? or whether, according to the opinion of some, we do not speak by *nature*, without use or instruction, in the same manner as we perform many functions of the animal nature? If this last be the case, it is in vain to inquire concerning the origin of language, which, according to this hypothesis, must be coeval with the animal. This, therefore, is a preliminary question that must be decided before we go farther; but, in order to decide it, we must fairly state it.

And, in the *first* place, Those who hold this opinion, will not, I suppose, carry it so far as to maintain, that men, without use or custom, without imitation or instruction, would speak a *formed regular* language, such as is spoken by civilized nations; and which, it is well known to every one that has the least knowledge of grammar, is an *art*, and a very great art too. But their opinion, when fairly stated, is, as I conceive, this, That men do naturally use articulate sounds to express the conceptions of their mind; very rudely and imperfectly, no doubt, at first, till by art they are improved, and acquire the form of a regular language.

Chap. I. PROGRESS OF LANGUAGE. 11

But even such a language, they certainly do not maintain, that men speak from the time of their birth, in the same manner that they perform the natural operations of breathing, digesting, or the action of sucking, by which an infant takes in the nourishment that is necessary to it. But they will say, that a man, when he comes to be of perfect age, will use articulate sounds to express his conceptions, without art or institution, and as naturally as he will perform many other actions, for the preservation of the individual, or the propagation of the kind. And some, perhaps, of those who hold this opinion, may require further, in order to produce a language, some society and mutual intercourse, not conceiving how a solitary savage should invent a method of communication for which he has no use. And this last, I find, is the opinion of a late French writer upon the *mechanism* of language *, and who pretends to have considered the subject philosophically; for he requires, that men should have lived some time together: But he is persuaded that a

* This book is entitled, *Traité de la formation mécanique de langues, et des principes physiques de l'étymologie*, printed at Paris 1756, in 2 vols 12mo.

parcel of children living so, would, by the time they came to be of age, have formed some kind of language. On the other hand, I maintain, that the faculty of speech is not the gift of nature to man, but, like many others, is acquired by him; that not only there must have been society before language was invented, but that it must have subsisted a considerable time, and other arts have been invented, before this most difficult one was found out; which appears to me of so difficult invention, that it is not easy to account how it could at all have been invented.

C H A P. II.

Of Capacities,—Powers,—Habits,—and Faculties in general.

THE question stated in the preceding chapter never has been fully considered, so far as I know, though it appears to me curious and interesting. I will therefore endeavour to examine it to the bottom; and, as it concerns powers and faculties, before I come to speak of the faculty of speech in particular, I think it will be necessary, for the better understanding

the argument, to premise some observations concerning powers and faculties in general.

With respect to which, there are four things that deserve to be distinctly considered: *1st*, The *energies*, or operations of such *faculties*. With these I begin; because they are first in the order of our conceptions, being perceived by the sense; whereas powers and faculties are latent things, and an object of *intellect*, not of *sense*. *2dly*, There is the *faculty* which is the immediate cause of those *energies*, and without which we cannot conceive them to be produced. *3dly*, The *habit** or disposition which is productive of the *faculty*; for every faculty is the result of a previous habit or disposition, without which it cannot exist. And, *lastly*, The *mere power*, or capacity of acquiring such *habit*. These two last are both, in the language of antient philosophy, called by the name of *power*†: But the distinction is made betwixt that *power*

* The word *habit* I use in the sense of the Greek word *ἔθος*. This I think proper to observe; because the word in English is frequently used to denote that custom or use by which any habit is formed, by a metonymy, not unusual in language, from the *effect* to the *cause*.

† *Δυναμεις*.

which immediately produces the *act*, and that which is remoter, and may be said to be only the *power of power* †. And I would chuse to distinguish them by different names, calling the one *faculty*, and the other *capacity*. And as *faculty* and *habit*, though in their natures distinct, are so necessarily conjoined, that the one can never exist without the other, however necessary it may be in other arguments to distinguish them, I do not think it is so in this; and therefore I shall, for the greater part, speak of them indiscriminately, under the name of either *faculty* or *habit*, as happens. But as there is no such necessary connection be-

† See this distinction made by *Aristotle*, in his 8th book, *De Phys. Auditione*, and explained at length by his commentator *Simplicius*, fol. 281. The example *Aristotle* gives, is that of a man who has not learned any art, but has the capacity to learn; and one who has learned it, but is not actually performing its energies. Both are said to be artists *divines*, but in different senses; which therefore I have chosen to distinguish by different appellations. *Simplicius* very well observes, that this second kind of power, or faculty, as I chuse to call it, lies in the middle betwixt *mere power*, or capacity alone, and *energy*, participating of each; that is, betwixt what is most imperfect in nature, and what is most perfect; for mere capacity is most imperfect, pure energy most perfect.— See the following note.

twixt the *faculty* and the *energy*, or betwixt the *capacity* and the *faculty*, (for the *faculty* may not operate, nor the *capacity* be carried the length of *faculty*), these two must be considered and treated of as distinct from *energy*, and from one another.

It will be necessary, for the sake of those who are unacquainted with the antient philosophy, to illustrate my meaning by some examples, both from *nature* and from *art*. Every animal, and vegetable too, when it is first produced, has no more than the *mere capacity* of generating, or producing its like; but, in process of time, this capacity grows into *habit*, and the consequential *faculty*; and when opportunity offers, the faculty is exercised, and produces *acts and energies*. And with respect to *art*, a man when he is born, has, from nature, the *capacity* of being a *musician*, *e. g.*; afterwards he forms the *habit*, and acquires the *faculty*; and then he *actually performs* when he thinks it proper. These examples will be sufficient to shew what I mean by the terms I have used; and these differences may be observed betwixt art and nature in this matter. In the 1st place, Capacity merely is all from nature; for, even in matters of art, the

capacity that any man has to become an artist, or that any subject has to be operated upon by art, is from nature singly. *2dly*, Habit or faculty is, in matters of art, acquired by use, imitation, or instruction; whereas, in natural things, it is the production of nature singly, without any preceeding use, exercise, or instruction. And, *lastly*, The energies in natural things proceed either from certain laws of nature, which is the case with respect to inanimate things, or from a certain inward principle, commonly known by the name of *instinct*, as in the case of brute animals: But, in matters of art, they proceed from that impulse, moving the rational mind to action, which we call *will* *.

* What is said here of *powers* and *capacities*, is, I think, sufficient for the present purpose. Who would know more of this matter, may read what follows, taken from the abstruse or *Acroamatic* philosophy, as *Aristotle* calls it, contained in his books of *Physics* and *Metaphysics*. All things in nature exist either in capacity merely, or actually and really; that is, as it is expressed by Aristotle, either *δυναμις*, or *ενεργεια*. Betwixt these two there is a *progression* both in *nature* and *art*, and which is the cause of all the productions of either; for every thing that is generated, or produced, proceeds from a state of nothing more than capacity, to a state of actual existence. Thus plants and animals are produced from seeds and em-

C H A P. III.

Of the Powers and Faculties of Human Nature.

THUS far of powers and faculties in general. But, before we come to speak of the faculty of speech in particular, it may

bryos, which are no more than plants and animals in capacity: And, with respect to works of art, the statue is in the block of marble *δυναμις*, but it does not actually exist till it gets its form from the artist; and the artist himself was at first only an artist in capacity. This progress, by which every thing in nature or art is produced, is what is commonly called *motion*: Which is therefore something more than mere capacity, but less than energy or actual existence; for it cannot be said to have any fixed or permanent existence of any kind, nor to be in any state, being truly a passage betwixt two states; so that it exists only in succession, and not any two parts of it together. This so shadowy being, and so difficult to be apprehended, Aristotle has, with wonderful acuteness and subtlety, defined and made an object of *intellect*: And as it lies betwixt two extremities, *capacity*, and *energy*, or actual existence, he has given us a twofold definition of it, the one taken from the one extreme, and the other from the other. The first is taken from the state of *capacity* from which it proceeds: And in this way it is defined to be, *ἰσολοχία του ἐν δυναμει ἢ ἐν ενεργειαι*; which may be translated thus, *the perfection of what is in capacity, considered merely as in capacity*. The meaning of the last words is, that nothing is confi-

not be improper, first, to take a general view of the *powers of human nature*, beginning with those that are from *nature immediately*, and next considering such as are *acquired*.

dered in the thing that is moved, but merely its capacity: So that motion is the perfection of that capacity, but not of the thing itself. The reason why it is said to be the perfection of *capacity* is already hinted at, namely, that it is something more than mere capacity; for it is capacity exerted, which, when it has attained its end, so that the thing has arrived at that state to which it is destined by nature or art, ceases, and the thing begins to exist *in seipso*: And therefore Aristotle has very properly called this exertion *the perfection of capacity*, since capacity can go no further.—The other definition is taken, as I have said, from the other extreme, namely, the state to which the progression is, that is, *energy*, or actual existence. And in this way it is defined to be *inepleta artein*, or *imperfect energy*; for, as it is the perfection of capacity, so it is the imperfection of energy. It is capacity carried its utmost length; but it stops on this side energy.

This is the account given by *Aristotle*, in his books of *General Physics*, (commonly entitled *De Physica Auditione*), of the nature of motion, taken, as we see, from a comprehensive view of nature and art, and of every kind of generation and production. None of our modern philosophers, so far as I know, have given a general definition of it that is in the least satisfactory, though they must all confess, that it is the grand agent in all natural operations; and therefore the knowledge of its nature must be the foundation of all natural knowledge. Mr *Locke* has saved himself the trouble of seeking for a definition of it, by telling us, that it is undefineable, because it is a sensation, or perception of sense; and he has en-

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The first operate without any previous use, exercise, or instruction: The other are the fruit of our own industry; and, before they can be exercised, the habit must be first form-

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deavoured to ridicule *Aristotle's* definition of it in a barbarous translation, not understanding, as I suppose, *Aristotle* in his own language. The reason that he gives for its being undefineable, will apply equally to every perception of sense, of whatever kind: And to be sure it is true, that no individual sensation or perception of sense can be defined; for this very reason, that it is a perception of sense, and not an object of intellect. But *Mr Locke* ought to have considered, that, from those perceptions of sense, the mind forms ideas, which are the proper objects of intellect; and therefore capable of definition; and of science, which cannot be without definition. And all those perceptions of sense which he calls *simple ideas of sensation*, might, when generalised by the intellect, be defined as well as the perception of motion, by a genius as acute as *Aristotle's*, assisted by proper observations and experiments. But the great defect of *Mr Locke's* philosophy is, that having, in the very outset, confounded the operations of sense and intellect, under the common name of ideas, he never afterwards sufficiently distinguishes them. Other modern philosophers have attempted to define motion by *change of place* or *situation*. But that is no more than the effect of motion; and it still remains to be inquired, what sort of thing it is that produces this effect. Besides, if it were a good definition, it is not general enough, comprehending only one kind of motion, viz. that from place to place; whereas *Aristotle's* definition comprehends every kind of change or alteration in body, whether with respect to place, magnitude, or quality.

ed, by art, experience, or custom. Of the first kind, most certainly, are those with which we are born; and with them therefore we shall begin.

They are but few in number: one of the most remarkable of them is the power of *motion*, and that natural impulse above mentioned, well known by the name of *instinct*, which directs an infant to apply that power of motion to the drawing its nourishment from the breast of the mother by the action of sucking. Besides this, we have that habit of body which makes us susceptible of nourishment, of growth, and all the vital functions. Whether we have distinct perceptions of sense, such as of seeing and hear-

This is the general doctrine of *capacities* and *energies*, and the *transition* from the one to the other, according to the notions of the Peripatetic school: But there is still a *higher* philosophy upon this subject, which teaches us, that this distinction betwixt *capacity* and *energy* takes place only in *inferior* beings; and that there is a *higher order* of being, in which there is no *progress*, *motion*, or *change* of any kind, and in which there is not the imperfection of *mere capacity*, but all is *habit* and *faculty*, not productive of *energies occasionally*, as with us, but *constantly energising*. See *Arist. Metaph. lib. 9. cap. 8*. But this belongs to a philosophy far beyond *sense* and *nature*; and which, for that reason, is very properly described to be *μετα τα φυσικα*; that is, with respect to our capacities, and the order of teaching, *after physics*; but, with respect to the nature of things, *the first philosophy*.

ing, I think may justly be doubted; and I will endeavour to shew, in the following part of this book, that we have them not in any the least degree of perfection, till in process of time the organs have acquired a certain degree of firmness, and we by experience have learned the proper use of them.

These seem to be all the *faculties* which we are *actually* in possession of when we first come into the world. The rest of our nature at that time is made up of *capacities merely*, or, to use the fashionable word, which I think not improper, of *capabilities*: for it is with us, as with other animals, at the time of our birth, almost all the powers of our nature lie concealed, and, as it were, folded up, till time and opportunity display them, and bring them into exertion: And indeed in that state, I cannot discover, that, with respect to actual powers, either of mind or body, there is any difference betwixt us and those other animals; or, if there be any, the advantage is on the side of the brute; for his body then is commonly more vigorous, and his instincts stronger and more active.

But with respect to latent *powers* and *capabilities*, there appears to be a wonderful

difference, infomuch that it is difficult to say, even at this day, after so much observation and experience, what the capabilities of a nature so various and so excellent as ours are. This only we know certainly, that men have actually exerted wonderful powers both of body and mind; nor is it possible to determine how much farther they might have been carried by constant exercise and instruction, continued through the course of a long life. It is even difficult to determine, how far the natural capacities of the brutes might go with proper culture; but man, we know, may, by education and culture continued for many years, be transformed almost into an animal of another species. Thus, with respect to his body, though he is undoubtedly by nature a terrestrial animal, yet he may be so accustomed to the water, as to become as perfectly amphibious as a seal or an otter.—And, with respect to the mind, it is impossible to say how far science and philosophy may carry it. The Stoics pretended, in that way, to make a *god* of a *man*; and there is no doubt but the human nature may, by such culture, be so exalted, as to come near to what we conceive of superior natures, and perhaps even

to possess the rank of such as are immediately above us in the chain of being.

The next thing to be considered is, what natural powers we are possessed of, when we have attained to perfect age. And these I think may be reduced to the following heads : *1st*, The perfect use of all the five senses ; *2dly*, Greater strength of body, and power of bodily motion ; *3dly*, The faculty of propagating the kind ; and, *lastly*, with respect to the mind, *instinct*, at that time of life, is more perfect, and less liable to error, directing us not only to the preservation of the individual, but to the continuation of the species. This last instinct still remains ; and also another, which makes us abhor destruction, and fly from danger and pain : but I am persuaded, that, before we were so much under the guidance of reason, or rather that bastard kind of reason commonly called *opinion*, we had many more instincts, directing us to the means of preserving and providing for both the individual and the offspring ; for I cannot suppose that nature left us unprovided in this respect, more than other animals ; especially if it be true, as I shall endeavour to shew, that instinct was as needful to us at first as to other animals, as we

had not then the exercise of reason, nor for a considerable time thereafter: But, after we had formed opinions concerning what was good or ill, profitable or otherwise, in human life, and forsaking the guidance of nature and instinct, had resigned ourselves to the government of those opinions, and become the artificial creatures we now are, we lost those instincts by degrees, and nature yielded to artificial habit.

These are the *natural* powers belonging to our species at present; and we are next to speak of the *acquired* or adventitious powers, which we have added to our natures by our own industry and sagacity. Of this kind are all the sciences, all the arts liberal and mechanic, all the commodities and pleasures of life, even civil society itself, and almost every thing belonging to it: And, if we rightly consider the matter, we shall find, that our nature is chiefly constituted of acquired habits, and that we are much more creatures of custom and art than of nature. It is a common saying, that habit (meaning custom) is a second nature. I add, that it is more powerful than the first, and in a great measure destroys and absorbs the original nature: For it is the capital

and distinguishing characteristic of our species, that we can *make* ourselves, as it were, over again, so that the *original* nature in us can hardly be seen ; and it is with the greatest difficulty that we can distinguish it from the *acquired*.

What chiefly makes this difficulty, is the facility with which we perform the operations that proceed from those acquired habits, and which makes us think them natural. Then many of them are acquired by such insensible degrees, and in our earliest years, that we do not perceive the progress that has been from *capacity* to *habit* ; and, finding ourselves possessed of them, without knowing how, we rashly conclude them to be the gift of nature.

Before I come to apply this observation to language, I will give some other instances of our mistaking acquired habits for natural ; and for the same reason, namely, the facility of their operations. The perceptions of sense are undoubtedly natural ; but from these we learn, by observation and experience, to draw conclusions of reasoning so readily and easily, that we mistake them for the original perceptions of sense ; *e. g.* by the sense of seeing, we

perceive nothing but the colour, figure, magnitude, and motion of the object *. These are all that are painted upon the *retina* of the eye; and it is only through the medium of the pictures there that we perceive any thing by this sense †: Yet the

* Colour is the primary perception of this sense; the others are only consequential. Figure, *e. g.* and magnitude, are nothing else but colour of a certain extent, or terminated in a certain manner.

† It is worth observing, though I think it has not been observed, that, in this sense, the progress from the impression made by the external object upon the organ to the mind, is better marked than in any other sense: For, with respect to the other senses, all we know of the matter is, that the impulse upon the organ is propagated to the brain by certain nerves, and so perceived by the mind. But here there is a stage of the progression distinctly marked, and now well known to all opticians, namely, the picture upon the *retina* of the eye, which was first discovered by *Kepler*, and is, I think, the greatest discovery in the matter of *sensation* that ever was made. Nor is there any science in which I think the moderns have excelled the ancients more than that of optics. In *Euclid's* treatise of optics, (if that work be truly his, and not the work of the author of the preface, who from his style appears to be of a later age), he gives an account of vision, which seems to us altogether absurd. He says, it is produced by rays, which he calls sometimes *ἀκτῖνες*, and sometimes *ὀψίτες*, issuing from the eye to the object, and forming angles at the eye, under which we see the dimensions of the object. But he tells us, that we do not see

vulgar all believe, and even such philosophers as have not studied optics, that by this sense we also perceive distances; and it is common language to say, that we see a thing at such or such a distance: But the truth is, that we see all objects at the same distance, that is, very near, and almost in contact with the eye; and it is only by observation and experience that we learn to judge of the different distances of objects, either from their magnitude, as painted upon the *retina* of the eye, from the clearness and distinctness of the picture there, or from its dimness and obscurity, from the intervening objects betwixt us and the object we

the object at once, but the eye goes over it by parts, though with a very quick progress, forming an infinite number of these angles; and yet he says, the more of these angles there are, the greater the object appears, and the more distinctly it is seen. This error of the rays coming from the eye, and not from the object, appears to have continued down to the time of *Joannes Baptista*, who first discovered, that the rays of light from the object, admitted through a hole into a dark room, make a picture of the objects on the opposite wall: And it was probably this discovery that led the way to Kepler's. It may be observed, that the Epicurean doctrine, which made vision to be produced by the images (*ειδωλα*) that came off from the surfaces of objects, was nearer the truth.

look at, or from certain other causes that have been observed by opticians. So that, whatever we know of distance, is not from sense, but an inference of reason from the premises just now mentioned. Thus, *e. g.* if I have been accustomed to see any known object at different distances, and consequently of different magnitudes upon the *retina* of my eye, if the picture there is small, I from thence infer, that the object is at a distance: And I make the same inference if the picture of it in my eye be dim and obscure, as the picture of objects at a great distance must be; or if I see betwixt it and me intervening objects, of the size of which, and the space they occupy, I have some notion.

Of the magnitude of objects, we have no doubt a perception by the sense of sight; but it is so various and undetermined, that, without the judgement of the mind, it would be impossible to say positively what the magnitude of any object is: For the perception of the sense depends entirely upon the angle of vision, that is, the angle under which we see the object; and that is greater when the object is nearer, and less when it is at a distance: So that the same

object appears ten times bigger when seen at the distance of a yard, than at the distance of ten yards; and yet we think a man no bigger at the distance of one yard, than at the distance of ten. And, even when I see a man or any other known object, through a telescope, which magnifies, perhaps, twenty times beyond the appearance to the naked eye, he does not seem bigger, but only nearer. How is it then that we fix and ascertain the magnitude of objects, which otherwise would be so various and uncertain, and in that way make a sense of so great use, which would else be of very little? My answer is, That it is, *1st*, by the use of another sense, viz. that of touch, by which we learn to know the true dimensions of things; and, *2^{dly}*, by two acquired habits of judging: The first, the habit of judging of distances above-mentioned; the second, another habit of judging founded upon this, by which we correct the perception of sense, and, notwithstanding the greater image upon the *retina*, conclude the object not to be greater, or perhaps less, and *vice versa*.

That this last judgement is founded upon the first, is evident from this, that, though the object be a known object, yet, if I have

not been accustomed to see it at different distances, or, what is the same thing, at different *perceptible* distances, as, *e. g.* the sun, moon, or stars, it appears to me according to the *natural* perception I have of magnitude by the image upon the *retina*: And, if it be seen through a telescope, it appears so much bigger, not so much nearer, as in the former case; because, not having seen it at greater or lesser distances, I can from thence infer nothing to contradict the appearance in my eye; which cannot here, as in other cases, be only a sign of the distance, but must be, as it truly is by nature, an indication of the magnitude.

Another proof of this is, what happens when we are deceived with respect to the distance, as when we see things through a fog: For, from the dimness of the image upon the *retina*, we infer, that the object is at a considerable distance; and from this supposed distance, compared with the greatness of the image upon the *retina*, we conclude, that the object is much greater than it truly is. And, in this way, a dog seen through a mist appears as big as a horse, and an ordinary man looks like a giant. And thus we have here likewise two judge-

ments of the mind; one a false judgement concerning the distance, the other a true judgement founded upon the first: Which is truly an error of the understanding, not a fallacy of the sense, as is commonly believed; for the sense does not deceive us, but truly represents the object to us as by the laws of nature it ought to appear, being seen through so thick a medium. But it is we that deceive ourselves, by not attending to the uncommon state of the air, which would have accounted to us for the distant appearance of the object; and that illusion being at an end, and the object being acknowledged to be near, the greatness of the image on the eye could no longer deceive us.

There are other fallacies of this sense, as they are commonly called, that I shall but just mention; such as a stick seeming crooked in the water, and a square tower appearing round at a distance. These are true representations of the sense, but apt to mislead the mind in judging of the real figure of such objects, if we are not learned enough to know the causes of such appearances, or have not been taught by experience not to regard them. But there are, if I am not

mistaken, other appearances of this sense, which we have learned to correct so early, that we have lost all knowledge and memory of them; and the true appearances, which we learn by the sense of touch, are substituted in place of the false. What I mean is, *1st*, The *double* picture of every object, one in each eye; from which I think it must necessarily follow, by the laws of vision, that we see every object double; but, by constant experience from our infancy, having learned that the object is truly single, we acquire the habit of seeing it only in that manner. *2dly*, The *inverted* picture upon the *retina*; from which I infer, that at first we truly see objects inverted: For, as we undoubtedly perceive the colour, figure, and magnitude of the objects by the picture in the eye, I do not see how we can otherwise perceive their position. But this representation of the sense we have learned also, by the most early experience, to correct, and to set the object upon its right end. And we have been so long in the constant custom of seeing them in that way, and the habit thereby is so formed, that we see then no longer any other way. I know there are learned opticians who differ from me in both these particu-

lars : But there is one thing in which I think there can be no difference of opinion, though I do not know that it ever was before observed ; and it is this, that at first we see things only of the magnitude of the picture upon the *retina* of our eye : for the angle which that picture subtends, is demonstratively equal to the angle of vision, that is, the angle which the object subtends ; according to the size of which, as we have already said, we see things of a greater or less magnitude : And the object appearing close to the eye, which it does according to the natural perception of the sense, and consequently at the same, or nearly the same, distance from the angle at the centre of the eye with the picture upon the *retina*, it is evident, that the object and the picture, subtending equal angles at the same distance, must be equal. And the only way we can account for things appearing to us so very much bigger is, that by experience and observation, arising from the evidence of our other senses, and particularly of our sense of touch, which makes a truer report, both of figure and magnitude, than our sight, we learn to see things in their true dimensions ; after which, we judge of their magnitude, not

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absolutely by the size of the picture in the eye, but *relatively*; so that what forms the greatest picture there, appears to us, *caeteris paribus*, the greatest object. And this acquired habit of judging becomes so familiar to us by constant practice, that we overlook entirely, as in the instances just now mentioned, the original perception, and imagine we really *see* things of the magnitude we only *judge* them to be of.

But enough, and perhaps too much, has been said, to shew, that, with respect to this sense of seeing, we mistake habits of judging, acquired by experience and observation, for the natural perceptions of sense; and that we have formed the habit so early, and by such insensible degrees, and perform the energies of it with so much readiness and ease, that it requires all the attention and accuracy of a philosopher to distinguish those energies from the operations of nature; and this was all that I intended by the example.

I will only say further upon the subject of our senses, that, if some others of them, such as that of hearing and feeling, were to be as accurately analysed and examined as the sense of seeing has been, I believe it might be found, that we learn to hear and

feel as well as to see, and that a great part of our infancy is spent in acquiring habits of sensation*.

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* This is an observation of Dr Reid's, in his ingenious work, entitled, *An Inquiry into the Human Mind*. I agree very much with this author in most things, and particularly in the distinction he has made betwixt *natural* and *acquired* habits; which he has illustrated by examples that I have likewise made use of: But I do not like the name which he gives to the last-mentioned habits, when he calls them *acquired habits of perception*; for, as by the word *perception*, is commonly understood perception by the senses, one should imagine the author meant, that these acquired habits were truly perceptions of sense. This, however, is not his meaning, though it be the opinion of the vulgar. But I think it is too much complaisance to vulgar opinion in a philosopher, to speak vulgar language, when it is apt to mislead. I have therefore chosen to call such habits *acquired* habits of *judging*, in contradistinction to *natural* habits of *sensation*, or perception by sense. And by this way of speaking, I mean always to keep in view the distinction betwixt *mind* and *body*, and betwixt those operations which the mind performs only *with the assistance of the body*, and those which it performs *by itself*; a distinction which I hold to be the foundation of the whole philosophy of mind, and which I shall take occasion to explain more fully afterwards.

In what I have said above, concerning some optical theorems, I have presumed to differ from the Doctor in a general proposition, which he lays down, p. 459. That a telescope, though it magnifies the visible figure of the object ten times in diameter, yet makes it seem no bigger, but only ten times nearer: For this is true only of known objects that we are accustomed to see at different distan-

(that is, perceives by the sense) either man or horse; for the sense of sight perceives no more than what is pictured in the bottom of the eye, viz. the figure, colour, and size of a certain mass of matter. But, before the mind can pronounce that mass to be a *man*, it must have performed no less than two operations of the intellect; one previous to the perception of sense, the other subsequent. The first is that by which we form the idea of that species of animal we call *man*; and whoever sees a man must have that idea ready formed in his mind: By the second, we compare with that idea the object which the sense presents; and from that comparison conclude, that the object is *man* or *horse*, or belonging to any other species of things. That this last operation is truly a *discursus mentis*, and a conclusion of reason, as I call it, not a perception of sense, is evident from this, that we often make an erroneous conclusion, and mistake one thing for another, as when we see things at a great distance, or through a fog, as in the instance above mentioned. In such cases, every man must acknowledge, that there is a judgement of the mind: But, in other instances, when there is no error, the process of reasoning is

so very short, and the conclusion so instantaneous, that a vulgar man may be forgiven to overlook it, and ascribe all to the sense; but I can hardly have the same indulgence for the philosopher, especially one who pretended, like Mr Locke, to be so attentive an observer of what passed in his own mind, and has written a whole book upon the subject*.

*If Mr Locke would have taken the trouble to study what had been discovered in this matter by the antients, and had not resolved to have the merit of inventing himself a whole system of philosophy, he would have known, what I mentioned before, that every material object is composed of *matter* and *form*. Of these two, the *form* is by far the more excellent, being that which constitutes the *essence* of every thing, and makes it what it is, in contradistinction to every thing else. This only is the *idea* of the thing, as we very properly express it in common language; and this is an object of *intellect* alone, which can no more be perceived by the *sense*, than the object of *one sense* can be perceived by *another*; so that it is as improper to speak of an *idea* of sensation, as it would be to speak of *visible sound* or *audible colour*. The *matter*, on the other hand, is only that which excites the sense; by which indeed the mind, in this state of its existence, is roused, and, as it were, awakened to the perception of ideas; but of which by itself there is no distinct idea, knowledge, or comprehension, nothing but an obscure notion; for it is only by the species that we know even the individual. See *Philoponus in Analytica poster. lib. 1. in fine*. And this is true, not only of *substances*, such as a man or a horse, but of *accidents*, (and every thing that exists is either *substance* or *accident*); for, when I say, that any substance is

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Having thus considered in general the *natural* and *acquired* faculties of man, and shewn, that in some instances they are apt to be confounded, we are now to inquire to which of them the *faculty of speech* belongs; and whether in this, as in other cases, we may not fall into error, by not distinguishing sufficiently what we have by *nature* from what is of *our own* acquisition. The facility with which we perform the operations in this case, as well as in the others above mentioned, is apt to make a man believe, who has not thought much upon the subject, that we do it naturally; and that, though it cost us a good deal of pains and trouble in our infancy to learn the language

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white or round, sweet or sour, that quality which I ascribe to it is not a perception of the sense, but the idea of the *general quality*, which I apply to this *particular substance*. For though this idea arise from the perceptions of sense, which furnishes the materials for it, it is impossible it can be the *object* of sense, which perceives only what is *particular*, not what is *general*, as shall be shewn more clearly afterwards. Till, therefore, the idea of any quality, such as *white* or *round*, be formed by the mind, and become an *object* of the intellect, the perceptions of the sense, with respect to such qualities, have no name or denomination, neither is there any knowledge or comprehension of them; so that it is impossible they can be affirmed or denied of any thing.

that we speak, yet, without that trouble, as soon as we came to riper years, we should have spoken some kind of language, that is, we should have expressed the conceptions of our mind by articulate sounds of one kind or another. On the other hand, I maintain, that this faculty is one of the many acquired faculties belonging to our nature; that though the *capacity* be no doubt given us by nature, the *habit* was very long of being formed. But, as we now perform it with so much facility, we overlook the steps and the progress that were necessary to form the habit, as in the instances above mentioned, and rashly conclude *that* to be the work of nature, which is the result of long experience and observation, and perhaps the greatest effort of human sagacity.

The reader, I am persuaded, will be the more inclined to adopt this hypothesis, as, from what is said above, it is evident, that even the perception by sight, which one should think is as much the gift of nature as any thing belonging to us, is truly, for the greater part, the effect of acquired habit, insomuch that, without such habit, it would be of little or no use to us. The same, I am persuaded, may be said of all the rest of our

senses: And I have no doubt, but that, when we first come into the world, we hear, smell, touch, and taste, as imperfectly as we see. The reason of which I take to be, partly the weakness of the organs of sense, that have not yet acquired the proper tone, and partly the infirmity of the mind itself, unaccustomed to such impressions from external objects, and therefore not knowing what to make of them; and the memory, or retentive faculty, being at that time of life as weak as the sensitive, the impressions are not retained by it, but are immediately effaced, like traces in water. So that it is highly probable, that by nature merely, and setting aside all use and experience, we can hardly be said, at the time of our birth, to have sensations, or even to deserve the name of *animal*. If therefore we have not the use of our senses from nature, but from acquired habit, it would be really extraordinary, if the faculty of speech was the gift of nature, and not of our own acquisition.

C H A P. IV.

*That Man does not by Nature form Ideas.—
Division of the Conceptions of the Mind.—
Nature of Ideas.*

BUT, in order to get at the bottom of this question, we must return to the division that I have made of language into the *material* and *formal* part, and consider each of these by itself; beginning with that which is most excellent, namely, the *formal* part. This part, as we have shewn, consists principally, and indeed it may be said only, of *ideas*; for, as we have just now seen, even *individuals* are known only by *ideas*. Now, if I can shew, that even the ideas are not from nature, but from acquired habit, there will be an end of the question, though I should not make out that the formation of articulate sounds is likewise by acquired faculty; which, however, I trust I shall be able to do.

To begin then with *ideas*, the nature and origin of which must be explained before we can truly judge whether they are the work

of nature, or of habit acquired: The best division that I think ever was made of the conceptions of the human mind, is that which *Plato* has given us in the *Theætetus**, into those which the mind forms *with the assistance of the senses*, and those which it forms *by itself* without such assistance. This division I prefer to all others; because it makes the proper distinction betwixt *body* and *mind*, which never ought to be out of the view of a philosopher who treats of such a compound as man;—a compound that never can be properly analysed, without making that distinction with the greatest accuracy. Of the first kind are the *perceptions of sense*; which undoubtedly are the act of the mind as well as the other; for it is not the *sense* that *perceives*, but the *mind* through the medium of sense †. The other are what I call *ideas* ‡: And these I subdivide into

* P. 135. Ed. Ficini.

† *Νους ἑστίν, νοῦς ἀνοῦτος*, is the saying of a very ancient philosopher; I think it was *Thales*; and it is adopted by *Aristotle*.

‡ This word is commonly supposed, and, if I am not mistaken, is said by *Diogenes Laertius*, to have been first used by *Plato*: But the fact is otherwise; for it is used by *Thomasius* the Locrian, in his treatise *De Anima Mundi*; and

two kinds; the first such as are directly and immediately formed from the perceptions of sense. Of this kind are our ideas of all natural and artificial substances and their qualities, and in short of every thing without us. The other are ideas which we form from the operations of our own mind. In this way we come by the ideas of *thinking, believing, doubting*; in short, of every operation of the mind, and of *mind* itself. The first class of ideas is produced from materials furnished by the sense; the second arises from the operations of the mind upon those materials: For I do not deny, that in this our present state of existence, all our ideas, and all our knowledge, are ultimately to be derived from sense and matter. But with these, the ideas of the first class are more nearly connected; whereas those of the o-

it is likely was a word used in the Pythagorean school, from which Plato took his doctrine of ideas, as well as most other things in his philosophy, even his doctrine of morals, though that is not commonly believed; and the contrary is said by the same *Diogenes Laertius*, in his life of *Plato*, where he tells us, that he took that part of his philosophy from *Socrates*. But the truth is, that he took nothing from *Socrates* but the *manner* of philosophising, and the art of *dialogue*.

ther kind are more congenial to mind, and may be said to be of *its own growth*, being produced from materials which itself furnishes. They may therefore be called *natural-born* subjects of the state, not *naturalized only*, as the others are; but the *sensations* are altogether *foreigners* *.

The faculty by which the mind operates in conjunction with the body, is very well known by the name of *sense*; the faculty by which it operates singly, and without participation of the body, I call *intellect* †. In the perceptions by sense, the mind is to be

* This is an observation of a late author, very little known, *Eugenius Diaconus*, a Greek by nation, and a professor in the Patriarch's university at Constantinople; from whence the reader would not expect to hear of any book of science coming at this time of the day. His book is a system of *logick*, written in pure Attic Greek, printed at *Leipswick* 1766. The learned reader, I am persuaded, will be glad to see some specimen of this *living* monument of *antient Greece*: I shall therefore give his words, which I think are elegant. Speaking of the first class he had mentioned, viz. the ideas of reflection, he says, Οικειον τι, και ανεν της παρα του ζυμαλιος ζυνδρομης η ψυχη καρπουται: επι δι της των διυσεων ιδιοποιιας, (he means what call the first class of ideas, viz. those formed from external objects), και αι παρα των ενος αισθητικαι αλλοιωσεις το παρε' εαυτων ζυνισφουρουσι. Ειστοι δ' αν τις εικασας ιθαγενεις εκεινας ειναι τη ψυχη εννοιας, ταυτας δε οιοι πολλοι ογραφουμιας: αι γαρ δια των αισθησεων απικισιατως διεγυρομιναι απλωσ επηλυδες. P. 159.

† It is called by the Greek philosophers *Νους*.

considered as merely passive, receiving like wax the impressions of external objects: But, in the other way of operating, it exerts that active and *self-moving* power, which I hold to be the distinguishing characteristic of mind, and the specific difference betwixt it and body †. When therefore the mind operates in this last way, it asserts its native power, and acts in a manner more worthy of its divine original; whereas, when it acts in the other way, it is to be considered as degraded and debased by its necessary connection with flesh and blood. Whether it was always obliged to act so, and to receive its ideas from sense and matter, or whether there was not a former period of its existence, when it derived its ideas from a nobler source, to the recollection of which ideas it is now only excited, and as it were roused, by the impulse of sense, so that all our knowledge is no more than *remembrance*, is a speculation not belonging to our present subject.

† This is the opinion of Plato, who makes the *νοεῖν* *νοεῖν* to be the distinguishing attribute of mind.

C H A P. V.

Of Mr Locke's Division of Ideas into those of Sensation and Reflection.

AS this division of Mr Locke is that which is commonly received among us, it is proper to consider how far it differs from, or coincides with, the division I have given. And, in the first place, it is obvious, that what Mr Locke calls ideas of sensation, comprehends the first member of Plato's division, namely, the conceptions which the mind forms by the assistance of the body, or, in other words, the perceptions of sense. But, further, it likewise comprehends the first class of those conceptions which the mind forms by itself, viz. the ideas that arise immediately from the perceptions of sense: For, as his division was intended to be general, and to comprehend all the conceptions in the human mind of whatever kind, and as it is evident they are not ideas of *reflection*, it follows of consequence, that they are what he calls ideas of sensation. And further still, as Mr Locke tells us, he means to include in

his division every thing that passes in the human mind, I doubt we must class under the first member of it the inward feelings of pleasure and pain, as well as the perceptions of external objects; and, in common language, such feelings are called by the name of *sensations*. As to those ideas which he calls, not improperly, *ideas of reflection*, being produced by a reflex act of the mind upon itself, they coincide perfectly with what I call the second class of ideas, viz. those formed by the mind from its own operations.

But what apology can the admirers of Mr Locke make for his not only giving the same general name of *ideas* to things of so different a nature as the perceptions of sense, and the ideas from thence formed, but making them to be of the same species of ideas? Is it not plainly confounding the materials with what is made out of those materials, as if we should express by one word, the brass, and the statue that is made of it? Does not such a confusion of *language* naturally lead to confusion of *thought*? Will a man who has only learned the philosophy of Mr Locke, readily make the distinction that

Plato has made, betwixt the conceptions of the mind produced by the assistance of the body, and those which it forms by itself without the intervention of the body? And will he not, on the contrary, be disposed to believe, that the mind is entirely dependent upon the body, and that it cannot act at all without impulses from the body? What consequences this opinion leads to, I shall afterwards consider; but, in the mean time, I must observe, that I cannot carry my censure of Mr Locke so far as a late ingenious author, whom I mentioned before, Dr Reid, does; who, in the conclusion of his work, charges Mr Locke's division of ideas with the greatest fault that any division can have: For his accusation comes to this, that it is no division at all; because, says he, ideas of reflection comprehend ideas of sensation; for it is only by reflecting upon what passes in our own mind that we come by the idea of sensation, as well as of doubting or believing; where it is manifest the Doctor confounds the abstract idea of sensation with the idea of the external object which that sensation presents to the mind. The first is most certainly an idea of reflection, being produced by the mind's reflecting upon

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what passes within itself; but the last is as certainly, in the language of Mr Locke, an idea of sensation. If it be true what the Doctor adds, that a certain later writer, whom he mentions, has made this hypothesis the foundation of his system of scepticism, it is not the Doctor only that has fallen into this error. And I must own, Mr Locke has talked so confusedly upon the subject, and has been at so little pains to explain this grand division of his, upon which he has built his whole system, that I do not much wonder that Dr Reid and others have fallen into this error. For, as Mr Locke has expressed himself, it may be doubted, whether, by ideas of sensation, he means all, or only one or other, of the following things: *1st*, Perceptions of particular objects of sense; *2^{dly}*, Ideas, or, as they are commonly called, abstract ideas of those objects; *3^{dly}*, Abstract ideas of the perceptions or sensations themselves, such as we form of the sensation of seeing or hearing; *4^{thly}*, Particular sensations of pleasure or pain; and, *lastly*, Abstract ideas of those sensations. The not distinguishing betwixt such different significations of the same term, has thrown a very great obscurity over his whole work,

though I know it is admired by many as a perfect pattern of perspicuity.

It may be said, in defence of Mr Locke, though I do not know it has been said, that his division of ideas does not respect their nature, or what they are, simply considered in themselves, but only their source or origin: So that his meaning is no more, than that all our ideas are either from sensation or reflection. But, in the *first* place, this is not a meaning to be gathered from his words, but rather the contrary; for he every where speaks of ideas of sensation as the *immediate* perceptions of sense, not derived from it only; though he ought not to have left it even ambiguous in what respect this division was which he has made the foundation of his whole system. And, *secondly*, If this was his meaning, there should have been no division at first, but he should have laid it down simply, that all ideas are from sense; and then he should have distinguished betwixt those that were directly and immediately from the sense, and those that were mediately by the intervention of the reflex act of the mind upon its own operations. If he had done this, he would not only have proceeded methodically and distinctly, but I

think it is highly probable, he would have avoided the capital error which he has fallen into, of confounding the perceptions of sense, which are the source of our ideas, with the ideas themselves*.

* Mr Locke wrote at a time when the old philosophy, I mean the scholastic philosophy, was generally run down and despised, but no other come in its place. In that situation, being naturally an acute man, and not a bad writer, it was no wonder that his essay met with great applause, and was thought to contain wonderful discoveries. And I must allow, that I think it was difficult for any man, without the assistance of books, or of the conversation of men more learned than himself, to go farther in the philosophy of mind than he has done. But now that Mr *Harris* has opened to us the treasures of Greek philosophy, to consider Mr Locke still as a standard-book of philosophy, would be, to use an antient comparison, continuing to feed on *acorns* after corn was discovered. I believe there have been many, since the restoration of letters, that understood Greek as well, some few perhaps better, than Mr *Harris*: But this praise I may give to my friend, without suspicion of partiality, that he has applied his knowledge in that language more to the study of the Greek philosophy, than any man that has lived since that period. It was the misfortune of us in the western parts of Europe, that, after we had learned Greek from the Greeks that took shelter in Italy, upon the taking of Constantinople, and had got some taste of the Greek philosophy, enough to know, that what was taught in the schools was a bastard kind of it, we immediately set up as masters ourselves, and would needs be inventors in philosophy, instead of humble scholars of the antient masters.

C H A P. VI.

Of the Formation of Ideas.

THE nature of ideas cannot be understood, without knowing accurately the manner in which they are formed; and from the account I am to give of their for-

In this way *Des Cartes* philosophised in France, Mr *Hobbs* and Mr *Locke* in England, and many since their time of less note. I would fain hope, if the indolence and dissipation that prevail so generally in this age would allow me to think so well of it, that Mr *Harris* would put a stop to this method of philosophising without the assistance of the antients, and revive the genuine Greek philosophy among us. For this purpose, he has taken uncommon pains, leading us, as it were, by the hand to the sources, and even taking the trouble to give most accurate, as well as elegant translations, of the passages he quotes, for the sake of those that are not sufficiently masters of the Greek language. He has, besides, discovered, to me at least, a new set of writers upon philosophy, of whom I was before entirely ignorant; I mean the later commentators upon *Aristotle* of the Alexandrian school; without whose assistance, the *Esoteric* works of Aristotle, that is, the more abstruse parts of his philosophy, appear to me altogether unintelligible: For it is certain, that Aristotle did not compose those works with the design that they should be understood by the vulgar, or by any body that had not been taught by him, as he himself says in his famous letter to his pupil Alexander, upon occasion of his publish-

mation, I hope it will be evident, that they are, as I have said, the production of *mind*, genuine and pure, without any mixture of *body*, and its operations. In this way the *origin* of our ideas will appear; without the knowledge of which, it is impossible to give

ing his books of metaphysics; which he there says he had *published* and *not published*. In short, his philosophical writings are, for the greatest part, to be considered as no more than a text-book, to be explained and enlarged by his lectures. See *Simplicius* in the beginning of his commentary upon the *Predicaments*. Besides, these commentators, particularly *Simplicius*, whom I just now quoted, have preserved to us many valuable passages from ancient books of philosophy which are now lost; for they had the use of many more books of that kind than we have. And further, it appears to me, that there was a *traditional* knowledge of *Aristotle's* philosophy preserved in this school of Alexandria, which, in the second century of the Christian aera, came to be, what Athens was before, the seat of philosophy and learning of all kinds. Of some of those commentators that have not been printed, Mr Harris has been so lucky as to procure MS. copies: But there are many more of them to be found in the *Escurial* library in Spain, that have not yet been printed, and I doubt never will, unless the love of Greek philosophy prevail more in Europe than it is likely to do. And indeed my surprise is, that so many of them have been published; for which I can account no otherwise, but that there was a passion for Greek learning and philosophy soon after the restoration of letters, (for about that time they were all printed), which I doubt is not now to be found, except among a very few,

any philosophical account, such as we propose to give, of the *origin* of language. After we have done this, we hope it will not be difficult to solve the question now in hand, and to shew, that *ideas*, being the workmanship of mind, are not a *natural* production, but that there is a progress here, as in other things belonging to mind, from *capacity* to *habit*; and that the faculty of forming ideas is, like other faculties of the mind, *acquired* by use and exercise.

Much has been said, and excellently well said, by Mr Harris * upon this subject of the formation of ideas. I do not differ from him materially in any thing he has said on the subject; but as the nature and design of my work requires that some things relating to ideas should be more fully, and a little differently explained, I hope I shall be excused by the public, as I am sure I shall be by Mr Harris, for coming over again a subject that has been already so well handled by so eminent an author.

I will begin with my first class of ideas, those which arise immediately and directly from the perceptions of sense. If we account well for the origin of them, the for-

* *Harris, lib. 3. cap. 4.*

mation of those of the other class, arising from the mind's own operations, will be easily explained.

The materials of the ideas which we form from the perceptions of sense, are all furnished by *sensation*; with which therefore we must begin in our account of those ideas. A certain impulse made by external objects upon the body, or certain parts of the body, known by the name of the *organs of sense*, if propagated to the mind, (for that does not always happen,) by a conveyance which we cannot explain, produces what we call a *sensation*; or perception of the sense; which is different according to the difference of the senses; but they all agree in the description I have now given. To analyse or describe more particularly this operation of external objects upon the mind, is not necessary for the purpose of this work; and besides, it is done to my hand in the ingenious work I quoted before, I mean Dr Reid's treatise upon the Human Mind.

According to this account of sensation, it is by its nature fleeting and transitory; and, if there were no way of preserving those impressions upon the mind, so that they should vanish and disappear like traces in water,

there would be no comprehension or knowledge of any kind: But nature has contrived a way of giving a permanency and stability to those fleeting *impressions*, by the means of what we call *memory*; in which the perceptions of sense are fixed in such a manner as to become the objects of knowledge.

If we could suppose but one object of sense thus recorded in the memory, there could be no idea, nor any kind of knowledge, such as we have at present: For, as was said above, it is by the kind or species that in this state of our existence we know any thing*. Now, to what species or class of things could this single perception be referred?

* It may be objected, How then can we form an idea of any new species, or of a single or monadic thing, as the ancient philosophers call it, such as the *sun*? I answer, with respect to the new species, by applying to it general ideas that I had already formed. I see, for example, an animal or vegetable that I never saw before; the only way I can form any notion of it is, by applying to it the ideas I have already formed of a certain figure, colour, size, or whatever other quality. In the same manner, I form a notion of any thing which by nature is single, such as the *sun*; and the new animal or vegetable, till I see more of the species, is, with respect to me, a monadic thing. It is therefore still true, that we know things only by the idea we have of the species, either of the species to which the thing belongs, or of some other species.

Next, let us suppose the most simple case, that the same object presents itself again to the sense; then will the trace of the former perception be renewed; or, to speak without a metaphor, we shall have another perception of the same object, knowing it to be the same. And here for the first time the mind begins to act by itself, and to exert a little of its intellectual powers: For it is clear, that this knowledge of the identity of the object goes beyond the power of sense; which can do no more than give another perception of the object, but cannot, by comparing the object with itself, determine that it is the same.

And thus far the brute goes alongst with us: For he has sense and memory as well as we, and, like us, he can distinguish the same from a different object; for who will deny that a dog knows his master, or a horse his keeper?

The next case we shall suppose is, that not the same individual object, but one of the same species, presents itself to the sense: I say, the mind there, too, exerts its intellectual faculty, and discovers that there is a likeness betwixt the two, though they are not the same.

Hitherto likewise, but no farther, the brutes accompany us: For it is manifest, that these animals have some notion of likeness as well as of sameness; for a dog will distinguish a man, or any other animal, from one of his own species; and when a creature of an uncommon species, that he never saw before, is presented to him, we see manifest tokens of surprize in him.

The next step, one should imagine, after distinguishing the species in the individual, was to form the idea of the species, and so to perceive *the one in the many*, as Plato has expressed it. But, before we come so far, there is another step necessary, though I think it has not been observed; for, before we can see *the one in the many*, we must see the *one* by itself. For understanding this, it is necessary to observe, that our senses present to us the objects as they exist in nature, that is, mixed and compounded; for, in that way, every thing in the material world appears to the sense: So that, in perceiving even a single object, the sense perceives only so many different qualities united in some *matter* or *substratum*, of which the sense has no perception. Thus, when we perceive a man, or any other animal, the sense takes

in at the same time the figure, the colour, the size, and other sensible qualities; and the combination of these qualities in one common subject, is the first rude notion, and, as it were, confused sketch, which not only we, but also the brutes, as I have observed, have of the species. But, in order to form the *idea*, a *separation* or *discrimination* is necessary of these qualities one from another: And this kind of *abstraction* I hold to be the first act of human intellect, and that it is here the road parts betwixt us and the brute; for the brute perceives the thing, and preserves the perception in his memory, just as the object is presented by nature, that is, with all its several sensible qualities united; whereas the human intellect separates and discriminates, and considers by itself, the colour, *e. g.* without the figure, and the size without either*.

* By what is here said, I would not be understood to deny the truth of Aristotle's maxim, that *Νῦς ἑστὶ τὸ ἐν ᾧ οὐκ*, i. e. it is *mind* that makes *one*: For though *separation* be the first operation of the human intellect, *uniting* is the *principal*, and *that* for the sake of which the other is performed; for it is by *uniting*, or making *one* of the *many*, that *ideas* are formed. By the union of ideas we make propositions; by the union of propositions, syllogisms; and by the union of syllogisms, systems of science. Plato has considered them both as equally the operation of

The next step after this, is undoubtedly *the idea*, or *the general*: For, perceiving that this *one*, which by our *intellectual* faculty we have separated from the *natural* mass, exists, not only in the individual object from which we have abstracted it, but in many others; then, and not till then, we have the *idea* of a *quality* or property of any substance; and as soon as we perceive a certain combination of them united together in one common subject, then we have the idea of a *substance*; for the intellect first *separates*, and then *unites*. Nor indeed can we conceive several things *united*, without first conceiving them *separated*; for, as to the joint perception of several

mind; for, says he, the mind makes *one* of *the many*; and again, *many* of *the one*; that is to say, it forms the *idea* of the *genus*, and then we divide it into the several subaltern-species. And there is nothing in science that he recommends more, than never to quit the *general*, or let things go to *infinity*, as he expresses it; that is to say, to *individuals*, till we are sure that we have exhausted all the specific differences. See the *Philebus*. And accordingly he has himself practised this method of *division*, as it is called, very much, particularly in the *Sophista* and *Politicus*. But still I think it is true, that *union* is the principal operation of mind; for it is in order to make new species, or new *ones*, if I may so speak, that we divide the *genus*, in the same manner as at first we abstract from any object of sense any of its qualities, in order to form the idea of the species.

things presented to us by the sense, it is plainly the operation of the sense alone, and has nothing to do with intellect; and accordingly the brute perceives in that way as well as we.

And thus it appears, that by the mind's abstracting from any individual one or more sensible qualities, and perceiving these to exist in other individuals, the *idea* is formed, and the *one* is made out of the *many*. And what makes this one, is *that one thing* which is *common* to the *many*; for *that* gives them an union, and, as it were, a band or tie, which bundles them up together. When the idea is perfectly formed, the several *subjects* in which this one common thing exists, are entirely laid out of the view of the mind, and the *one common thing* is only considered; that is to say, in other words, *the likeness*, or, to speak more accurately, *that in which they are like*, is only considered, not the *things* that *are* like; the *commonness*, if I may so speak, that is, *the thing which is in common*, not the *things* which *have* it in common *

* It is in this sense that *Simplicius*, in his commentary upon the *Categories*, uses the word *κοινότης*. See the passage quoted by Mr *Harris* in his *Hermes*, p. 381. And

The process I have described above, will be easily understood when explained by an example. I have the perception by my senses of an individual animal, as *e. g. a man*; and this perception consists of the perceptions of several particular qualities, such as figure, colour, size, &c.; which being all perceived by the sense as united together in *one subject*, make up the *general perception*, so I may call it, of a man.

But this union is entirely the operation of sense, not of mind; for the mind does no more than receive the united impression from sense. And accordingly the brute has this perception as well as we. And further, when this united impression is again made upon the sense, he knows it to be the same. So far there is neither *abstraction* nor *generalization*. But, if I shall go further, and consider in the individual man, either presented

it may be observed, that it is from this *κοινότης* that the more general idea is said to comprehend or contain the less general; and the less general to be a part of the more general; for the *κοινότης* or *common nature*, is said to *contain every* thing that participates of it; and, on the other hand, what participates, is said to be a part of the *common nature*. This is the more to be attended to, that upon this notion of *one idea* being *part* of another, depends the whole doctrine of the *syllogism*, as laid down by *Aristotle* in his *First Analytics*.

to me by the sense, or preserved in my memory, any one particular quality, such as the figure, separated from the rest, then I perform that operation of intellect which I call *abstraction*. Again, if I go farther still, and comparing together the several perceptions presented to the sense; or retained in the memory, of individuals of the same species, I find that this figure is common to them all; then, and not till then, I have the general idea of this figure, which, either by itself, or joined with other qualities abstracted in the same manner, (according as my idea is more or less complete), forms the idea of *man*; which is plainly made up of one or more qualities, first abstracted from *one* individual, and then recognised as common to *many*.

From this account of ideas it appears, that we often do not sufficiently distinguish the idea of a thing from that confused perception of it above mentioned, arising from the united impression which its several qualities make upon the senses. This perception, as I have said, we have in common with the brutes; and the ideas of vulgar men are very little better. And the ideas even of men of science, in things that they have not studied, are of the same kind.

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For, if such a man, though learned in other sciences, has not studied botany, for example, or observed, with particular attention, the characteristical differences of plants, he may be able readily to distinguish those with which he is acquainted, one from another, in the same manner as a dog can distinguish a horse from a man; but he will not be able to give any rational account of the difference, and, consequently, will not have what may be properly called the *idea* of the thing. And, if we attend, we shall find that we have such notions of many things in common life. For example, every man can readily distinguish the faces of the several persons with whom he is acquainted; but it would cost him a good deal of time and thought before he could tell wherein the difference consisted. He has therefore no more than a confused notion of those faces: But this is sufficient for the ordinary purposes of life.

Another distinction is necessary to be made, if we would think accurately upon this subject. Suppose that I have abstracted and formed distinct ideas of every quality existing in any substance; suppose also, that I perceive the combination of these qualities

in that substance; I cannot for this be said, properly speaking, to have the idea of that substance: I have indeed a distinct perception of it; but, till I recognise the same combination of qualities existing in some other subject, I do not perceive the *general*, and, consequently, have no *idea*, but only an individual perception.

For understanding this, let us suppose a single or *monadic* thing, such as I mentioned before, and such as the ancients conceived the sun to be. Of this substance, I have a distinct notion, because I perceive and distinguish certain qualities in it, of which I have the idea, such as light, and heat, and emission of rays; but, if I do not conceive that there is any other sun in the universe, I have no idea of it, nor is it a species of any thing, but a thing by itself. In like manner, if I see any new species of plant or animal, tho' I can describe it exactly, if I am an attentive observer, and a good natural philosopher, by ascribing to it such qualities as are known; yet, till I discover other plants or animals of the same kind, it cannot be said to constitute a species, nor can I be said actually to have an idea of it, though I may reasonably suppose it to be one of a species, as there is,

no doubt, the highest probability that there is not in nature any single vegetable or animal. But this is only supposition, and, till more of the kind is discovered, it is, so far as we know, but single; and so can never make a species. But, as soon as we discover others of the kind, and so can generalize; then we conceive the species, and have the idea of the thing.

This, therefore, is the process of the mind in the formation of ideas. We begin with qualities, and by first abstracting, and then generalizing them, we get the ideas of qualities. Next, by combining qualities in certain subjects, and generalizing those combinations, we attain to the ideas of substances. And thus it appears that we must proceed with respect to intellectual, in the same manner as we do in natural things. For, if I would be a good natural philosopher, I must accurately observe the several steps of Nature's progress in the formation of any plant or animal, from the seed or embryo to the perfect thing of the kind. In like manner, if I would understand the things belonging to mind, I must trace their progress step by

step, carefully attending that I do not over-leap any. And it is only in this way that we can attain to any competent knowledge of the philosophy of mind.

In this process, the last and principal step, being that which compleats the idea, is *generalisation*, by which we perceive what is general or common to one or more things. For it is the perception of this common nature, as distinct from the subjects in which it is inherent, that makes what I call an *idea*. Now, when we *generalise*, we necessarily *compare*. So that the faculty of comparison is that which produces ideas, and is therefore the foundation of intellect, and all the intellectual powers of the human mind *.

* By comparing things together, we discover their differences as well as their likenesses. And hence we may perceive, that Aristotle's notion of *definition* was founded on a perfect knowledge of the human understanding, and the manner in which it acquires knowledge. For, according to him, the definition must contain both the genus and the specific difference; that is to say, what the thing defined has in common with other things, and what distinguishes it from other things. So that, without similitude and difference, there could not, according to Aristotle, be any knowledge of any thing. And it is to be observed, that it is not every difference which must be expressed in the definition; for

We are not, however, to imagine, that the brute wants it entirely; for a dog certainly *compares*, when he finds out that a man is or is not his master, or when he deliberates which of two ways he shall go. For deliberation necessarily implies compa-

E 3

the differences of things are innumerable; because every thing is different from that which it is not. But it is the difference from things of the same kind, and which makes the thing defined a species by itself; whence it is called the *specific* difference. And the reason is, that the thing cannot be perfectly known, which it ought to be by the definition, unless we can distinguish it from those things that it most resembles. For, if I can only distinguish any particular species of animal from a stone, or even a plant, I know little or nothing of its nature: But, if I can distinguish it from other animals, I may be said to know it; and then best, when I can distinguish from it those which it resembles most.

If this be a true account of the nature of our ideas, we have no knowledge but of the relations which things have to one another. And it will be objected, that things, particularly that class of them we call substances, have a nature and essence of their own, by which they are what they are, without relation to any thing else. And therefore, according to my account, we can have no knowledge of the nature of such beings. To this I answer, that human knowledge does not reach to the essence of any substance. All we know of them is certain properties or qualities; and these are nothing else but relations to other things. To be convinced of this, we need only try to form an idea of any plant or animal, without

rison. But the difference appears to me to consist in these two things: 1st, That the brute, not having made the discrimination above mentioned of the several particulars, does not make the comparison so exactly, but only compares things together by the

referring it to something else. It may indeed be perceived by our senses, or it may be figured by our imagination; but we shall try in vain to make it an object of the understanding, without conceiving it to be like something else, or different from some other thing. And the same is true with respect to the qualities or accidents of substance, of which we have no idea, but in so far as they have something in common, or something different from other accidents. Now, substance and accident comprehend the whole of things.

If it be asked, from whence we get this knowledge of likeness and difference, which, I say, is all we know of the nature things? I answer, from the source of all our knowledge in our present state of existence, I mean the senses: And, particularly with respect to material objects, we have that knowledge of them directly and immediately from the senses. For we know nothing of their likeness or difference, except from their operations upon our organs of sense. Those which operate upon our organs in the same way, we say, are of the same kind; those which operate in a different way, of a different kind. As to mind, and its operations, we know nothing of it, but from the consciousness of the operations of our own mind. Those of them, which in that way that we know to be alike, we refer to the same class, and call, *doubting, believing, desiring, &c.*; and from them

kump. 2dly, The brutes make the comparison only when the sense is excited by the presence of the object, with which they compare another perception of sense preserved in the memory. Thus a dog, when he knows his master, compares the immediate perception which he has of him with the past, which he retains in his memory or imagination *. And I am persuaded, that, in our very early years, we compare in no other way: But, in process of time, we attain the faculty of comparing together the perceptions of sense, even when the objects are not present; and from that comparison, forming notions of their likeness or unlikeness.

E 4

we distinguish other operations, which by the same means we know to be different.

Thus it appears that all our ideas, and whatever can be called knowledge, arise from experience and observation, either of external objects, or of what passes in our own mind. So that *πειρασις, experience*, is not only the mother of all arts, as Aristotle informs us, but also of our ideas, which are, like art, nothing else but a collection of many experiences. And as art is clearly not from nature, but the fruit of human industry; so neither are ideas, which come from the same source, as shall be more fully shewn in the sequel.

* The difference betwixt these two I will afterwards explain; but I did not think it proper to imbarrafs the present argument with such a discussion.

Of the generals thus formed by comparison, logicians distinguish *two* sets or classes. The *first* consists of those of the *lowest species*; so called, because below them there is nothing but *individuals*. These being formed in the manner above described, and recorded in the memory, as the perceptions of sense were before, the mind again exerts its power of comparison upon them; and discovering among them likewise resemblances, forms of those resemblances another set of generals above the first; with respect to which they are, in the language of logic, said to be the *genus*. And thus we arise from *general to general*, till we come up to those of the *highest order*, which are distinguished from those of inferior order by the name of *universals*. These, in the ancient philosophy, have, by an amazing exertion of the human genius, been reduced to ten classes, and called by the name of *categories*; such as *substance, quality, quantity, &c.* *. And here we may observe in pas-

* This discovery was first made in the *Pythagorean school*, (if it was not brought by Pythagoras from Egypt); and is to be found in the work of *Archytas*, a philosopher of that school; which has been preserved to us by *Simplicius*,

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ing, the very great impropriety of Mr Locke's philosophical language ; for these *universals*, or whatever we can suppose farther removed from *sense and matter*, must all be ranked under his *ideas of sensation*.

the commentator upon *Aristotle*, who has inserted the whole, or by far the greatest part of it, in his commentary upon *Aristotle's Categories*. The title of the work, as Simplicius tells us was, Περὶ τοῦ παντός, that is, *Of the universe*: For, it appears, he considered these universals as the principles of all things ; which, no doubt, they are. Aristotle has entitled his work, upon the same subject, Κατηγορημάτων, *Categories*, or *Predicaments*, as we commonly translate the word from the Latin: And the reason of the difference of the title is, that Aristotle, in his work, has considered those universals *logically*, as the *predicates of propositions* ; and accordingly has set this book at the head of his logic : Whereas, Archytas has treated of them *metaphysically*, as the *principles of things*. Simplicius tells us, that Aristotle, in his work, has followed Archytas very closely, differing from him in very few things: And indeed it so appears from the passages he quotes; which clearly shew, that the *Categories* of Archytas are the very same in *name*, in *number*, and in *nature*, with those of Aristotle ; and there is only some difference in the way of arranging them: But, as to the method of explaining and illustrating them, it is so very like, that it is plain Aristotle must have had before him Archytas's book ; of which, in some places, he has copied the words, only translating them from the *Doric* of the original into the *Attic*, And yet I am sorry to say, that neither in that work,

From this account of the human mind, and its progress, compared with that of the brutes, it appears, that the essential difference betwixt them and us consists in this, that the brute still continues as much im-

nor in any other, so far as I know, has he ever made mention of an author, to whom he owed a discovery so great, and of which he has made so much use. It is indeed true, what Porphyry says in his *life of Pythagoras*, § 53. That Plato, Aristotle, and other Greek philosophers, whom he names, have taken almost their whole philosophy from the Pythagoreans. But there is no other of them, so far as I know, that has transcribed a whole book of that philosophy, without acknowledging to whom he owed it.

As to the utility of the discovery, it is such, that without it we should have had no perfect science: For there can be no science without definition; and there can be no definition, unless we can tell the genus or class to which the thing defined belongs; and the definition is not complete, unless we can tell, not only the *immediate* genus, but the *highest* genus, that is, the *last class* under which the thing is comprehended. Thus, though I know that *man* is an animal, if I do not know what *animal* is, I cannot be said to know what *man* is. But, further, suppose I know that *animal* belongs to the genus of the *το ἐμψυχον*, or *animated body*, in order to make the definition complete, I must know likewise to what genus or class of things the *το ἐμψυχον* belongs. But is there no stopping in this ascent? or is there an infinite progress upwards? If there

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merged in matter as we are in the first stage of life: So that his mind never acts but by impulse from material objects, either external or internal; by which last I mean the natural calls of appetite, produced by certain alterations of the body: Whereas, our mind acquires the habit of acting by

be, it is clear there can be no complete definition, and, consequently, no perfect science; because there is no science of what is infinite. Again, suppose there was a limit to this ascent, and that we could determine the *ultimate* genus, beyond which there is no other, that is the *category*, which, in the instance I have given, is *substance*; yet, if we could not define the number of those universals, there would, for the same reason, be no science of the principles of things, which, as I have said, the categories are; and all we could say of them would be, that they were infinite. And thus it appears, that, without the knowledge of the categories, there would be no such science as *metaphysics*, which is the science of the principles of things, nor any perfect science of any kind. I say, *perfect science*; for there may be science without such complete definitions as I have supposed. Thus, Euclid has not told us *what* a point is; that is to say, what genus it belongs to; but has only said, that *it is that which has no parts*. *Figure*, he has defined, in the same way, by telling us, *It is that which is inclosed by one or more boundaries*. *Length, breadth, and thickness*, he has not at all defined, though he has made use of the terms in the definitions of *lines, surfaces, and solids*, but has referred to *sense* and common apprehension for the knowledge of them. And, though he has made *magnitude* and

itself, without any such impulse from matter, and so of exerting that *self-moving power*, which, as I observed before, is the chief characteristic of *mind*, and which is denied to the brutes, at least in the state in which we see them.

number the subjects of two sciences, viz. *geometry* and *arithmetic*, he has said nothing of the *category* to which they both belong, viz. *quantity*. It is for this reason that Plato has said, that *geometry*, and, in general, what we call *mathematics*, are not *perfect sciences*; because they do not demonstrate or explain their principles. See *Plato De Republ. lib. 6*. But Aristotle has made an apology for Euclid, and all those that have treated of the *inferior sciences*, by shewing, that it belongs only to the *first philosophy*, or the *science of sciences*, as it may be called, to demonstrate the principles of the *subaltern sciences*, which *assume* their principles, but do not demonstrate them. And therefore Euclid would have been to blame, because he would have gone out of the bounds of his science, if he had meddled with *space*, *extension*, *quantity*, or any such universals.

Thus it appears of what universal use, not only in *logic*, but in the *whole* of philosophy, the doctrine of the *Categories* is; of which I could not help taking notice in passing, though it has run out into a long note. I shall only add, that the public will very soon see a work of Mr Harris, in which the nature of the several *categories* will be accurately explained; and which, if I am not much mistaken, will be the best book of *metaphysics* in the English language; for, in that way, he has chosen to treat the subject.

This observation will explain several phenomena of the brute nature; from which some have rashly concluded, that they have the use of intellect and reason as well as we. Thus, a horse, by travelling the same road twice or thrice, learns to know it often better than his rider; from whence one might conclude, that he had some idea of a road. But the fact truly is, that although, no doubt, the perception of this particular road is impressed on his memory or imagination, and retained there, yet he has no *idea* of a road; because, not having that active self-moving power above-mentioned, his remembrance is only excited by the object being presented again to his sense. At any other time, so far as we can discover, he never thinks of that road, nor is conscious that he has any such perception in his memory: And therefore it is impossible that ever he can form the *idea* of a road, according to the process above described. Again, a horse or a dog remembers his home, or the place where he is fed, and protected from the weather; but, so far as we know, never thinks of that place, except when he is prompted by hunger, cold, love of society, or any other natu-

ral appetite. And it is the same with respect to the operations of the mind of the brute, as with respect to his perceptions of external objects: For not having that self-moving power which we have, he cannot review his own operations, of which he is not conscious; and therefore it is evident that he cannot form *ideas of reflection*.

From what is here said, the difference betwixt *perceptions of sense* and *ideas* must appear manifold. In the *first* place, Those perceptions are only the *materials* from which *ideas* are formed; and therefore are as distinct from *ideas* as the *matter* of any thing is from its *form*. *2do*, Perceptions of sense arise only from objects *present*; whereas *ideas* may be formed, and are commonly formed, from past sensations, preserved in the memory or imagination. *3tio*, The perceptions of sense preserved in the memory or imagination, are no more than the images of objects, such as they were presented to the mind by the senses: But neither sense, memory, nor imagination, makes that comparison which we have shewn to be absolutely necessary in order to form *ideas*. And hence it is, *4to*, That the perceptions

of sense, though retained in the memory, are all of *individual* things; whereas ideas are all of *generals*, being of things common to many individuals. And, *lastly*, In the formation of ideas, the mind is altogether active; whereas, in the perceptions of sense, it is merely passive. What confusion, therefore, must it not have produced in philosophy, the not distinguishing things so different in their nature, and the operations of faculties so different as *sense* and *intellect*?— And so much for the ideas that are formed immediately from the perceptions of sense.

As to the ideas which arise from the operations of the mind, and which I shall call, with Mr Locke, *ideas of reflection*, they are formed in the same manner: For the mind preserving the memory of its own operations, as well as of external objects, and reviewing and comparing together the individual operations thus preserved in the memory, and discovering something *common* to several of them, of that *one common thing* it forms the *idea*; and in that way we come by the ideas of *doubting*, *deliberating*, *affirming*, and of *thinking* in general. This, I believe, is agreeable to Mr Locke's notion of

such ideas ; and, as he has observed, under the *operations* of the mind we ought to include the *passion* as well as the *action* of the mind : So that the ideas of pleasure and pain, (not the actual feeling, for that is mere sensation *), and of all their various modifications in the different passions, are all ideas which we get from reflection. But we should carefully distinguish two things that he has not distinguished, viz. the *particular* operations of the mind, and the idea or *general notion* thence formed ; which he has

* I call it *mere sensation*, when there is no *perception of any external object* : For it is to be observed, that the word *sensation*, as it is commonly used, is equivocal, denoting either the perception of any external object by the *senses*, or the inward feeling of pleasure or pain arising from the body ; and which is always accompanied with a certain emotion and alteration of the mind. This last kind of sensation is often joined with the former ; for often, when we feel pain, we perceive at the same time the external object that produces it ; as when a man is pricked by a sword, or burnt with a hot iron. At other times, we feel pain without the perception of any external object ; which is the case where the body labours under any disease. And as thus we have sensation of pain, without the perception of any external object ; so, on the other hand, we have very frequently, and indeed most commonly, the perception of external objects without either pain or pleasure.

confounded in the same manner as he has confounded the *particular perceptions* of sense with the *ideas* formed from them.

From this account of the formation of our *ideas*, it is evident, that the mind forms them without any assistance from the senses. With respect to the *ideas* of reflection, there cannot be the least doubt, as the senses do not so much as furnish the materials out of which they are formed: And, with respect to the *ideas* arising from sensation, it is evident, that the sense furnishes only the materials, upon which the mind works by itself, and forms the *ideas*: For those *ideas*, as we have shewn, arise from the mind's comparing together the perceptions of sense, and discovering betwixt them certain resemblances and similitudes. Now, it is impossible that the sense can *compare* or perceive relations of any kind; and therefore this *comparing faculty* is the peculiar property of the *rational*, or, as the Greeks call it, the *logical* mind: For the Greek word λογος, which the Latins render by the term *ratio*, properly signifies a *relation*. And according to Euclid, * who must be supposed to

* The definition is, Λογος ἐστὶ μετὰ τῶν ὁμοίων καὶ πη-
λαιοτάτη πρὸς ὁμοίους, lib. 5. def. 3. And the learned in the
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speak with the greatest propriety, so defines the word applied to magnitude.

If any man, notwithstanding what is said, can have the least doubt of these ideas formed from the perceptions of sense being the act of the mind singly, as well as ideas of reflection, let him consider that class of them which are called ideas of *relation*, such

Greek language may observe, that this is the proper *etymological* sense of the word $\lambda\omicron\sigma\epsilon\varsigma$; for it is derived from $\lambda\epsilon\gamma\omega$; of which the antient signification was to *gather* or *collect*; in which sense it is used by Homer, and in the most antient dialect of Greek extant, I mean the Latin language; and in the later Greek it is still used in that sense in composition, as in the word $\sigma\upsilon\lambda\lambda\omicron\sigma\epsilon\varsigma$. From this original signification, $\lambda\omicron\sigma\epsilon\varsigma$, by a very natural *metonymy*, came to signify *relation* or *comparison*; which cannot be made without collecting the things together, and setting them, as it were, beside one another. And accordingly this very word *comparison*, from the Latin *comparo*, and likewise *confero*, *compono*, all denote *setting together* or *juxtaposition*.

From the word $\lambda\omicron\sigma\epsilon\varsigma$, the Greeks derive the adjective $\lambda\omicron\sigma\iota\kappa\omicron\varsigma$, which, according to the propriety of that language, signifies, *having a natural aptitude to acquire this comparative faculty we call REASON*. And it is in this sense that it is used in the definition of man, who is said to be $\zeta\omega\omicron\nu\ \lambda\omicron\sigma\iota\kappa\omicron\nu\varsigma$, which therefore comprehends an infant as well as a grown man. But as this description is not sufficient to distinguish man from the brute animals, which, as we have seen, have this comparative faculty as well as we, at least to a certain degree; therefore they add to the definition $\nu\omicron\nu\ \kappa\alpha\iota\ \epsilon\pi\iota\sigma\iota\eta\mu\eta\varsigma\ \delta\iota\kappa\iota\kappa\omicron\nu\varsigma$, by which the brute is altogether excluded; as shall be explained afterwards.

as *likeness*, *diversity*, *double*, *half*, and the like. These ideas are certainly formed from sensible objects, as much as the idea of a *man* or a *horse*; yet no body, I think, will say, that the senses have any concern in the formation of them; and the reason is plain, namely, because they are comparisons which the mind makes of two or more things*.

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* Plato, in the passage quoted above from the Theaetetus, gives examples of ideas of this kind, to prove that the mind thinks and perceives by itself, without the assistance of the body or its organs. Socrates is there speaking of the two senses of hearing and seeing; and, after having established, that what we perceive by the one we cannot perceive by the other, he asks Theaetetus, whether, when we think of *both* these senses, we do it by the organs of *either*; or, when we think of *either*, is it done by the organs of both? For this is truly the sense of the passage, though the words will not bear it, as they stand in the printed editions, thus: *Εἰ τι κρζ περι ἀμφοτέρων διαση, οὐκ ἐν δια γι του ἑτέρου ὄργανου, εὐδ' αὖ δια του ἑτέρου περι ἀμφοτέρων κίθωνι' ἐν. Theaetet. tom. 1. p. 185. Edit. Serrani.* But the last member of the sentence ought to be read thus, *εὐδ' αὖ δια των ἀμφοτέρων περι του ἑτέρου κίθωνι' ἐν.* Theaetetus answers, 'That we do not think so by the organs of either, or of both. First, then, says Socrates, 'concerning colour and sound, do not we think this of both, that they are *both*?—Certainly.—And likewise, that each of them is different from the other, and the same with itself?—No doubt. And that both are *two*, and each of them *one*?—This likewise.—And cannot you consider

Now the other ideas derived from the same source; though they are not actual comparisons made by the mind at the time we speak or think of them, and therefore are not ideas of *relation*; yet they are the result of comparisons formerly made; from which we collect that *common nature* which makes *the idea* of any object of sense. It is therefore evident that, in this state of our existence, we think and form ideas only by *comparison*. The reason of which is obvious, from what has been said, viz. That we collect our ideas from objects of sense that we set together and compare. Intelligences of a higher order have, no doubt, a manner of conception very different, but of which it is exceedingly difficult for us to have even an idea*.

* whether they be *like* or *unlike*?—And in this way he goes on, till it comes out, that the ideas of *being* or *not being*, *like* or *unlike*, the *same* or *different*, *one* or *many*, are all ideas which the mind forms by itself. These so general ideas Plato has chosen as most evident proofs of his proposition. But it is clear, from what is said above, that the argument goes to all general conceptions.

* There was, however, among the ancients a kind of mystic philosophy, founded upon the writings of Plato, which professed to exalt human nature above the present condition of mortality, to a degree of intelligence which we conceive to belong only to superior natures. This philosophy prevailed much in later times. It began with

And thus it appears, that the division of the conceptions of the mind made by Plato

Plotinus of Alexandria, the scholar of Ammonius Saccas, and continued through his successors, Porphyry and Jamblichus, down to Proclus, the greatest of all these philosophical mystagogues, and who was thought to explain so well the abstruse parts of Plato's philosophy, that he was honoured with the name of his Successor, (*διαδοχος Πλατωνικος*). These philosophers, by a certain course of study and method of living, pretended to raise the human mind above *νοεσ* or *intellect*, and to make it conceive even intellectual things, not in the ordinary way, by comparison, that is, by circuit and collection, but directly and immediately, (*μικρῶ ἰσχυρῶ ἢ οὐκ ἔστιν ἄλλο*, as they expressed it), in the same manner as we perceive objects of sense. And in this way, they said, and this way only, was that being to be conceived, who was above all time and place, and even substance, (*ὑπερουυσιος*), in short, existed in a manner altogether different from every thing else. See *Proclus in Plat. Theolog. lib. 2. cap. 13. et passim.*

Whether these philosophers had not too high a notion of the perfection to which our nature might attain, when they thought that we could change the very manner of our perception, is not my business at present to inquire: But so far at least is certain, though I think it has not been observed by any modern philosopher, that the manner in which the intellect operates is entirely different, at least in ordinary men, from that in which the sense performs its operations. For the sense directly and immediately apprehends its object; whereas the intellect operates only by comparison, and by collecting likenesses and dissimilarities from different objects, as shall be afterwards more fully explained.

is well founded; and that there are truly conceptions, which are the act of the mind operating by itself, without any assistance from the senses. And thus I would fain hope, that I have distinguished the *perceptions of sense* from *ideas* in such a manner, that they will not again be confounded, and that we shall hear no more so strange a language in philosophy, as that which speaks of *visible* and *tangible ideas**.

C H A P. VII.

Of Abstract Ideas.—That there are Ideas which are not abstract.—Of the three ways in which Ideas exist.

IN the language of our modern philosophy, *general ideas*, and *abstract ideas*, are understood to be synonymous terms; and every notion of the mind that is *abstracted* is understood to be *general*; and, *vice sa*, every *general notion* is conceived to be *abstracted*. But this I hold to be a mistake:

* This is the language of Dr Berkeley in his *Theory of Vision*.

For, in the first place, I think I have shewn, that we not only *may* have a conception of a particular quality of any substance, *abstracted* from its other qualities, without conceiving such quality to belong to any other substance; but that we *must* have had such an *abstract* conception before we could have any *general* conception. And we may go further, and say, that such abstracted conception of the individual quality may never be generalized. Thus, *e. g.* if I believe that there is no other sun in the universe than ours, and if I consider his rays, or any other quality peculiar to him, separately from his other qualities, I have an *abstracted* notion of his rays, but no *general* notion or *idea* of them.

Thus it appears, that there may be *abstraction*, without *generalization*. But can there be *generalization* without *abstraction*? Or are there no other ideas but *abstract* ideas? That all those in the human mind are such, is admitted. But are there no other in the universe? Does every intelligence think in the manner we do? If so, *matter* must be the *eldest* of things; and even *mind* and *intelligence* are to be derived from it: For that must be the consequence,

if there be no ideas, but such as arise from matter; because it is impossible to conceive intelligence without ideas. And yet to this consequence Mr Locke's philosophy naturally leads; which makes mind so dependent upon body, as not to operate without it, and knows nothing beyond sensation, and its *ideas*, as he calls them. I am persuaded, that Mr Locke did not mean to draw such consequences from his philosophy; but it is certain, that such consequences have been drawn from it, and that the most extravagant systems of scepticism have been founded on it.

The philosophy I have learned is of a very different kind: It teaches me, that mind is the most antient of things*; and that, as it alone has activity, and the *principle of motion in itself*, it is the efficient cause of every thing: That therefore there are *ideas* of a much higher order than those which we abstract from matter, being the *models* or *archetypes* of all *material forms*: That of such ideas *the intellectual world* is composed; of which *the material* is no more than a copy: That there are other intelli-

* *Plato, in Epinom. p. 1008. edit. Ficini.*

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gences in the universe besides ours, and infinitely superior to ours; and *one* highest of all, in whose intellect resides that intellectual world, and who is not only the *efficient cause* of all things, but *virtually* comprehends in himself every thing existing.

These ideas of highest order and dignity are, in the language of antient philosophy, said to be *before the many* * ; that is, anterior to all individual and particular forms; which being infinite in number, are said to be *many*, in contradiction to the *one* idea that is the pattern of them. Again, if they are considered as existing in the particulars or individuals of which they constitute the nature and essence; they are said to be *in the many* †. And in this way exists the whole *visible world*; which is nothing but the intellectual world made perceptible to the sense. And last of all come the ideas of our minds abstracted from the *many*; that is, from the material world: For such is our condition in this period of our existence, that we must necessarily draw all our ideas from that

* Προ των πολλων.

† Εν τοις πολλοις.

ence explains the nature; and in those of them that are most general, such as the *categories* above mentioned, contemplates the *first principles and elements of things*: For

but once printed. It is where he comments upon Pythagoras's definition of philosophy, which was *ἰσότης των ἰσίων*. Upon that occasion, he explains what the *ἰσία*, or *things really existing*, are, in contradistinction to what has no fixed or permanent existence. The words are, *Ὅσα δὲ, τὰ κατὰ τὰ αὐτὰ καὶ ἀσπυτως αἰ διατελοῦσι ἐν τῷ κοσμῷ, καὶ οὐδέποτε του αἰνι ἐξίσταμιν, οὐδὲ ἐπὶ βραχῦ. Ταῦτα τ' αἰ ἰσί, τὰ αὐτὰ καὶ ἄν κατὰ μίτουσιαν ἑκάστον λοιπὸν των ἰσασίμων ἐστὶν καλοῦμεν, τοῦ τι λίσσαι καὶ ἰσί. τὰ μιν γὰρ ἑσμάσια δῆπου καὶ ὕληα, ἐν διατικῆ ἴσση καὶ μεταβολῇ, δια παντός ἐστι, μιμῶμιν τῆς τῆς ἐξ ἀρχῆς αἰδίου ὕλης καὶ ὑπαστάσιως φύσιν καὶ ἰδιότητα ὅλη γὰρ δι' ὅλης ἢ τρεπίῃ καὶ ἀλλοιωτῆ. τὰ δὲ περὶ αὐτῶν, ἢ καὶ ἑν αὐτῇ διαρρομῶν, ἀσμάτα ἕϊον ποιοτήτις, ποσοτήτις, σχηματισμοί, μίγθη, μεροτήτις, ἰσοτήτις, σχίσσις, ἐνεργεῖαι, διαβίσις, τοποι, χρονοί: πάντα ἄπλως, οἷς περιεχεται τὰ ἐν ἑκάστῳ ἑσμάτι, ὑπαρχει καθ' ἑαυτὰ ἀκίνητα καὶ ἀμείψωτα: ἑσμάθηκοτῶς δὲ μίτιχει καὶ παραπολαυι τῶν περὶ το ὑποκειμῖνον ἑσμά παλῶν. τῶν δὲ τοιῶτων, ἐξαιρετῶς ἰπιστῆμη ἰστι, ἢ ἑσφια ἑσμάθηκοτῶς δὲ, καὶ των μίτιχοσίῶν αὐτων, ὅσα ἐστὶ ἑσμάτων. Ἀλλ' ἑκίνα μιν αὐτὰ καὶ αἰδία, καὶ ἀτελειότητα, καὶ δια παντός ὁμοία, καὶ ἀπαραλλακτα, πῆφικῆ διατελίῃ, ἀσπυτως τῆ αὐτων οὐσίῃ ἐπιδιῆμῖνοντα. καὶ ἑκάστον αὐτων, κυρίως ἐν λογίται. The sense in substance is, that *ideas*, or *intellectual forms*, alone can be properly said to exist, being immaterial, eternal, and unchangeable; that *matter and body* are, by their natures, in a continual flux and change; that it is only by participation of the *intellectual form* that the *corporeal form* can be said to have any existence at all*

all things existing, are nothing else but those universals unfolded, as it were, and developed. From the intellectual world, it naturally ascends to the contemplation of that *universal mind*, in which this intellectual world is contained; and *that* makes the highest part of this philosophy, called by the ancients *theology*. With respect to the ideas *united* with matter, that is, *material forms*, they are the subject of that science called *Natural Philosophy*. And as to ideas *abstracted* from matter, the science conversant about them is what we call *mathematics* * ; the subject of which are, *length, breadth, thickness*, and, in general, *magnitude*, likewise *number*, and its *affections, ratios, proportions, &c.* : Which are all ideas abstracted by our minds *from* material forms, and not considered as existing *in* those forms, for then they become the subject of *natural philosophy* or *mixed mathematics* ; nor as pre-

that these *intellectual forms*, though of their own nature *immortal*, yet being united to body, they, by accident, (*ἁπλοῦς*) partake of its affections, and become liable to change.

* This is the way in which Aristotle has divided the sciences. See his *Metaphysics*, lib. 6. in *initio*.

views to those forms; for, in that view, they would be the subject of the *first philosophy*.

If this account that I have given of these three orders of ideas be just, any philosophy of ideas which does not distinguish them must appear very defective. The first are the fountain and source of the other two, if it be true that this world is the production of mind and intelligence, not of blind chance; for, if so, there must be an *intellectual* world previous to the *material*. To deny, therefore, the existence of such ideas, is to deny, that the universe is the work of *mind*. This is an impiety which I am far from imputing to Mr Locke: But thus much I may be allowed to say, that, by not carrying his philosophy of ideas beyond sense and matter, he has given, at least, the appearance of *materialism* to his system*.

* It is really surprising, that an author who treats professedly of the philosophy of mind, should never have made the proper distinction betwixt mind and body, two things as opposite to one another, as any two things can be, and which do not, like other things in nature, run into one another. But, so far from making the distinction betwixt them, it is plain, that he has confounded them; for not only does he derive his whole doctrine of ideas from body, but he has expressly said, that there is no contradiction in body thinking, and that it may be so modified

C H A P. VIII.

Of perfect and imperfect Ideas.—Of the Ideas of Plato.—Of Science and Opinion; and the Difference betwixt these two.

IN describing the progress of the human mind in the formation of ideas, I have said, that the idea may be more or less per-

as to have that faculty. [Essay on, &c.] Lib. 4. cap. 3. sect. 6. But this, I hold, to be joining together two ideas altogether repugnant, and exclusive the one of the other. For what is body? It is that which has not the power of moving itself, or of beginning motion. What again is mind? It is that which has the power of moving itself, and of beginning motion. In this way, Mr Locke himself appears to have defined them, when he has said, *That matter cannot move itself.* Ibid. lib. 4. cap. 10. sect. 10. And again, *Active power is the proper attribute of spirit; Passive power of matter.* Lib. 2. cap. 23. §28. Now, there can be nothing more opposite or contradictory than affirmation and negation, so that we may as well conceive the same body to be, at the same time, and in the same respect, both round and not round, as to conceive body thinking, or, what is the same thing, body to be spirit. It is true, that a thinking substance may be joined with body or matter, which is the case of the human mind, so that the one shall affect the other by a most wonderful sympathy, for which we cannot account; but, we must not, therefore, confound the two substances, or say that body is or can be mind.

fect; from which, it follows, that there may be a general notion or conception of the thing, but such as is not what we emphatically, and properly enough, in English, call the *idea of a thing*. This requires explanation; without which our philosophy of *ideas*, and consequently of *language*, of which ideas make so essential a part, would be imperfect.

From the account we have given of the formation of ideas, it is plain it must be a work of difficulty, if rightly performed, requiring attention and accuracy. It is therefore impossible that it can be equally well performed by all, or by any at first. The brute, as we have seen, has some confused notion of the *species* in the *individual*. Our children, at first, I am persuaded, have no more distinct idea of it; and, I believe, they have this further resemblance to the brute, that the idea, such as it is, is excited only by the presence of the object, or by some bodily impulse of one kind or another; their minds not having yet acquired that *self-moving* power, by which the mind, without such excitement, reviews and compares together the perceptions of sense lodged in the memory or imagination. They learn, no

doubt, by conversation with grown persons, to form, pretty early, more distinct conceptions of the different specieses of *substances* : But as to *qualities*, and particularly *general* qualities, such as, *good, bad, fair, handsome, just, and unjust*, though they have those words frequently in their mouths, the ideas they annex to them are so very confused and indistinct, as hardly to deserve the name. Nor have they any clear conception of any term they use denoting any general quality, except it be of such as denotes a *sensation*, as *sweet, bitter, painful, pleasant* ; of which they have as clear ideas as many philosophers. The vulgar may be said to continue children, in this respect, all their lives, at least, in some degree ; for, though their notions are, no doubt, more distinct than those of children, and such as they can better explain, yet they are far from being those perfect ideas which we are now to describe.

This idea is no other than the idea of the man of science, or philosopher ; which is very different from that of the vulgar. For, in the *first* place, it is entirely separated and abstracted from every thing material, all the several particular objects from which it is collected being laid out of the view of the

mind, and *that* only which they have in *common* being considered ; whereas the vulgar never perfectly make this separation, but still continue to see the *one* only in the *many* : So that among them, *man*, *e. g.* is no more than one name given to *Peter*, *James*, and *John*, and other individuals of the species ; and when they want to explain their idea of any thing, they cannot do it without an *example* ; that is, without shewing to the person with whom they converse, the material image of the thing in their own minds. *2dly*, It is such an idea as constitutes the nature and essence of the thing unmixed with any thing else.

How difficult this last requisite is to be attained, we shall be convinced, if we consider, that *every thing in nature is mixed with every thing*, according to the saying of the antient philosopher, I think it was Anaxagoras. Thus *length*, *breadth*, and *thickness*, *figure*, *situation*, and *qualities* without number, are all joined together in the same subject, and, in that way, presented to the senses. Now, it is the business of intellect to discriminate these, and setting them each apart by itself, in that way, to form the idea

of it. If this is rightly done, then is the idea, that perfect idea we seek for, such as is expressed in the definitions of the terms of science. But it may be defective in several respects. In the *first* place, It may only contain qualities, such as are *accidental*, and not distinguishing or *characteristical of the species*; as if I were to form my idea of a man from the colour or size, or any other property belonging to the individuals I may have seen, but not *common* to the species. *Secondly*, The qualities that form my general idea may be *common* to the species, but not *peculiar*; as if I should make my idea of a man to be that of a creature walking on two legs, or of a horse, that of a creature with four legs. *Thirdly*, The quality may be *common* to all the species, and also *peculiar*, but may not contain its *nature and essence*. Thus, if I define a man by his risible faculty, or a horse by his neighing, these qualities, though both common, and peculiar to each of these specieses, yet as they do not constitute their nature and essence, they are not the idea of the philosopher. *Fourthly*, The qualities of which I form my idea of the species, I may not have a *clear and distinct conception of*; as, *e. g.* if I define



man to be a rational animal, capable of intellect and science, unless I know what *rationality* is, and what *intellect* and *science* are, I cannot have a perfect idea of a man. And, *lastly*, My idea may contain the qualities that are *common* and *peculiar* to the species, and also such as constitute its *nature* and *essence*; but, if it contains, besides these, other qualities that are *accidental*, or *idiomatical*, that is, peculiar to the individual, or that are *common* to *other* specieses; in short, if it contains any thing else but those very qualities which constitute the nature and essence of the thing, from which all its *properties* are derived; nay, if it should contain any even of those *properties* which are by demonstration deducible from its nature; as, *e. g.* if, in my definition of a triangle, I should include the quality of its having its three angles equal to two right ones; it would not be the *perfect idea* of the philosopher, which must contain nothing, as I have said, but the *very essence* of the thing.

But, if it have not this superfluity, and have all the requisites above mentioned, then is it the *idea* of Plato, so much talked of,

and so little understood, being a sense of the word different from that in which it is used in modern philosophy. For it is not the meaning that I have given to it, which comprehends every *general* notion, however inadequate to the nature of the thing; and far less is it the idea of Mr Locke, which comprehends even perceptions of sense, tho' it was, no doubt, from the philosophy of Plato that he borrowed the use of the word. This *idea* is the *real thing existing* *, of which Plato speaks so often in a language that appears mysterious, but which may be understood from what I have said: For he tells us, "It is that which makes *one* of the *many*; which, preserving the *unity* and *integrity* of its own nature, runs through and mixes with things *infinite* in number; and yet, however *multiform* it may appear, is always *the same*: So that by it we find out and discriminate the thing, whatever different shapes it may assume, and under whatever disguise it may, *Proteus-like*, hide itself †." Now, though this description alludes to a peculiar

* *To οὐλος οὐ.*

† See Plato in *Philebo*, et alibi.

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notion of his concerning ideas, which I shall afterwards explain, and which Plato never has out of his view, it may be understood of the idea, such as I have described it, by which we discriminate a thing from all others, and find it out mixed with many other things in various forms and substances.

This perfect idea is, in many cases, very difficult to be apprehended, especially if it be a very general idea; for such ideas are the principles of things, and therefore the most simple and uncompounded: But for that very reason they are the most difficult to be by us apprehended; *first*, because we are accustomed to perceive only what is mixed and compounded; and, *secondly*, because those general principles are joined, and incorporated as it were, with so many various forms and substances, that it is very difficult to evolve them, and shew them by themselves. It is therefore true what Aristotle says, that those principles, by how much they are great in power and efficacy, by so much they are the more difficult to be distinctly apprehended.

Of this kind of ideas are the ideas of justice, goodness, and beauty; which are so

general, and therefore of so difficult definition, that they furnished ample matter for the Sophists of old to shew their art, and to puzzle and perplex those with whom they conversed. Plato has written no less than ten books*, in order to explain what *justice* is; and he has given us a definition of it, taken from the school of Pythagoras †, and which is very different from the common notion of it. He has also, in the same books, spoken much of *the good*, or το αγαθον, but he has not defined it. He tells us, in the way of similitude, that what the sun is in the visible world, the το αγαθον is in the intellectual. And he further says, that to know it is the perfection of all knowledge, as it is the governing principle in nature, and ought to be so in all human actions and pursuits ‡. Whether Plato himself knew any more of the matter than what he has told the reader in these books, may perhaps be doubted, though I should incline to think he did; and therefore I hold this to be one of the mysteries of his philosophy,

* These are his books Περὶ πολιτείας, or *De republica*.

† See the Pythagorean philosopher *Theages*, in his most valuable work, Περὶ ἀγίων, inserted in Gale's collection, entitled, *Opuscula Mythologica*, &c. p. 681

‡ Plato *De Republica*, lib. 7.

which he did not communicate except to a very few: And accordingly it is so treated by his later followers, Plotinus, Iamblichus, and Proclus, who have made the doctrine of the *το αγιον* a great part of the *mystical theology* of Plato.

As to the third of those general ideas, *the beautiful*, or *το καλον*, he has spoken much of it in the *Symposium*: And as what he says there shews, that he understood *ideas* were formed in the way I have described, (though by the mysterious manner in which he speaks of them one should think otherwise), I will here give the substance of it. “The first objects,” says he, “in which we discern the beautiful, are *corporeal forms*; And we begin with loving *one* beauty of that kind; from thence we proceed to contemplate other beauties of the same kind, till we discover *that* in which they all resemble one another; and then, abating of our love for *the individual*, we come to be lovers of *this species* of beauty, and general admirers of *all fine forms*. From body we next proceed to *mind*, and discover the beautiful in *characters, manners, and institutions*; and finding here, too, the same resemblance in all these, we become gene-

“ral admirers of this species of beauty like-
“wise, esteeming but very little the former
“in comparison with it. The next step is
“to the beautiful *in science*: And here, in like
“manner, we are not to attach ourselves to
“the beauty of a single science, but in ge-
“neral to contemplate that species of beau-
“ty; and by this course of study, we come
“at last to discover the *general idea* of beau-
“ty, comprehending all the specieses above
“mentioned, viz. the beautiful in *forms*, in
“*manners*, and in *science*. A most wonder-
“ful beauty indeed, says our author, and
“for the sake of which only all other beau-
“ties are to be studied. It is eternal and
“incorruptible, having neither beginning
“nor end, increase nor diminution: It is not
“beautiful in one respect and ugly in ano-
“ther; it is not beautiful at one time, or in
“one place, and ugly at another time, or in
“another place; nor can it be conceived by
“the imagination, like a fine face, or a fine
“hand, or any other corporeal form; nor
“must we represent to ourselves this uni-
“versal beauty as existing in any particular
“thing, such as an animal, or even the earth
“and heavens; but we must consider it sing-
“ly by itself, and detached from every thing

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“ else; and all things else we must consider
“ as beautiful, only by *participation* of this
“ universal beauty, which always remains
“ the same, without suffering the least im-
“ pair or diminution by the destruction of
“ those other things in which it exists. This,
“ says Diotima, (the prophetess, in whose
“ mouth Socrates puts this discourse), is the
“ perfect science of beauty, and will make
“ you, Socrates, (to whom she is introduced
“ as speaking), a perfect lover, if you are ca-
“ pable of being initiated into such mys-
“ teries.”

In this manner has Plato mixed with the merriment of a feast, and even the riot of a debauch, for in that way it ends at last, his sublime philosophy of ideas and intellectual forms, which he has hardly ever out of his view in any of his dialogues, whether he be serious or pleasant *.

* Those who are not acquainted with this intellectual philosophy, will be surprised at one part of this description, namely, that we are not to consider this idea of beauty as inherent in any particular subject, not even the heavens. But those who have studied the precious remains that we have left of the Pythagorean philosophy, from which it is evident that Plato took almost all his philosophy, particularly his theology and doctrine of ideas, will not be surprised at this expression of his: For

From what is said, it will be further evident, how difficult it is to give a precise definition of ideas of such high abstraction. Plato, we see, has not attempted to define *the beautiful* in this passage, nor in another dialogue which he has written wholly upon the subject; I mean, the *Hippias Major*;

the Pythagoreans made the same distinction with respect to music that Plato makes with respect to beauty, distinguishing sensible and intellectual music; by which last they understood the ratios and proportions of numbers, considered simply by themselves, abstracted from voice or sound, and every sensible object, even the stars or planets; (see *Nicomachus's Arithmetic*, p. 5.). So that this music, according to their notion, was superior even to their music of the spheres, so much talked of, and so little understood. If it be objected, that this intellectual music of the Pythagoreans is as difficult to be conceived as Plato's intellectual beauty, I answer, that I myself have known a man who understood it perfectly, and took great delight in it; for he would spend whole days in reading music, without applying either voice or instrument to it. Now this was certainly intellectual music, though conveyed to the mind by sensible marks, as much as reading any book is an exercise of the intellectual faculty, though the thoughts are there likewise conveyed to the mind by sensible characters; because, in both cases, the marks have not the least analogy or resemblance to the things signified; and therefore they only excite the memory, but do not in the least operate upon the sense or imagination. The pleasure, therefore, of this musician, must have been altogether intellectual, produced by the idea of those numbers of which melody and harmony consist.

where he shews indeed very clearly, that Hip-
 pias did not understand what it was; but he
 makes us nothing the wiser for that. The
 good, as I have said, he explains by a simi-
 litude, in the same manner as he does the
 nature of the soul in the *Phaedrus*; where he
 tells us, that to have the idea of the soul,
 (that is, in his language, the perfect idea a-
 bove mentioned), is divine knowledge, and
 of most difficult attainment: But to know
 what it is like, is human, and of less diffi-
 culty*.

This distinction betwixt *perfect* and *im-
 perfect ideas*, which I have so much insisted
 upon, will explain a thing that is but little
 understood, the difference betwixt *science* and
opinion. The subject of science is *perfect
 ideas*, such as I have described them; the
 subject of opinion is *imperfect ideas*. For, if
 the idea wants any of the requisites above
 mentioned; if it is not *common* to all the in-
 dividuals of the species; or, though common,
 if it be not *peculiar*; or, though both com-
 mon and peculiar, if it be not *essential*; or,
 with all these three requisites, if we have not

* P. 1221. *Ficini*.

a *clear and distinct conception* of it; or, lastly, if, besides the essential qualities, we throw into our idea of the thing *others not essential*; in short, if it be not *the idea of the thing*; then is it the subject of *opinion*, about which we see men wrangle and dispute without end; because they do not argue about the thing itself, but about an imperfect notion of it. It was not therefore without reason that Plato said, that the subject of opinion was neither the *τὸ ὄν*, or *the thing itself*, nor was it the *τὸ μὴ ὄν*, or *nothing*; but something *betwixt* these two. This may appear at first sight a little mysterious, and difficult to be understood: But, like other things of that kind in Plato, when examined to the bottom, it has a very clear meaning, and explains the nature of opinion very well: For, as he says, every man that *opines* must opine *something*. The subject of opinion, therefore, is not *nothing*; at the same time, it is not *the thing itself*, but something betwixt the two.

There is a difference also betwixt science and opinion in the *discursus mentis*, or the combination and comparison of ideas, as well as with respect to the simple ideas.

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But to treat of this would carry me too far from my present purpose *.

* These *ideas of Plato* being the subjects of science, are, in the language of Aristotle's philosophy, the *τα νοητα*, that is, *the objects of intellect*, or of that faculty of the human mind which, in the proper sense of the word, is called *νοησις*; by which, not general conceptions only are formed, but perfect ideas, such as contain the nature and essence of things. The conclusions from thence deduced with demonstrative certainty by the *discursus mentis*, make what the Greek philosophy calls *επιστημη*, and which we may express in English by the word *science*. And now it is easy to explain the whole of the definition of *man*, of which before I explained only a part. The definition is, *ζωον λογικον, η και επιστημησ δικηικον*, that is, *a rational animal, capable of intellect and science*. By the *first* part of the definition, as I have already observed, is expressed a *natural aptitude* to attain that faculty of *comparison* which is the foundation of our rational nature; for *λογος*, as I have shewn, in its proper signification, denotes *comparison*, though it is commonly used to denote all the *operations* of intellect, and *intellect itself*. Of this comparative faculty, for which he has a natural aptitude at the time of his birth, he, as well as many other animals, acquires the actual possession, when he comes to a certain age. But as to intellect (by which, as I have said, I express the Greek word *νοησις*, that is, the faculty of forming perfect ideas, as above described) and science, he may be in such circumstances of life, as never actually to acquire these; and in fact, all the savage nations, and by far the greater part of the civilized, have neither the one nor the other. Every man however is thought to be capable of attaining them, if his mind be properly cultivated; and therefore that capacity is made part of the definition, by which, as I have said, man is distinguished from the brute animals, that are not supposed capable of attaining to intellect and science.

C H A P. IX.

Of Plato's peculiar Notion concerning the Existence of Ideas.—The Opinion of some modern Philosophers upon that Subject.

THE doctrine of ideas, as I have delivered it, is taken from the Peripatetic school. I have shewn, at the same time, that, with respect to the formation of them by the human mind, Plato does not differ from Aristotle. But I mentioned a peculiar opinion of Plato concerning ideas, which it is possible the curious reader, if he does not already know, may desire to know; and which therefore, as belonging to the subject we are now treating, I will endeavour to explain.

These perfect ideas of Plato which I have described, are no other than the specieses of things which were held by Aristotle to exist in the mind of the deity; and every body who believes the universe to be the production of mind, and not of blind chance, must be of the same opinion. They are therefore those previous forms, as Mr Har-

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ris calls them, which are truly eternal and unchangeable, and may be said to have a real existence, in contradistinction to corporeal forms, which are fleeting and perishable, and in a constant vicissitude of generation and corruption. Thus far, therefore, Plato and Aristotle agreed, and in general all the ancient philosophers who were not Atheists. But Plato went further, and maintained, that those ideas or species of things had a real existence by themselves, not only out of any corporeal form, but out of any mind or intelligence: That they were incorporeal substances, not accidents, or qualities, of other substances: That they mixed with every thing here below; and that it is by participation of them that every thing is denominated to be what it is. An *individual* man, *e. g.* by the participation of the idea of man, is that animal, and no other, and is called by that name *. What the nature of this *participation* is, or how it is to be conceived that one simple indivisible idea, (for such they all are according to Plato),

* The *idea* of man, in the language of the Platonic philosophy, is called *αυτο-ανθρωπος*, that is, *man itself*, or the real man; while the *corporeal* man is only *ανθρωπος*, or simply *man*.

existing as a substance by itself, should mix and incorporate with so many different masses of matter, and yet still preserve the unity and indivisibility of its nature, is one of the mysteries of the Platonic philosophy, which neither he nor any of his followers, so far as I know, have ever explained.

This opinion appears so extraordinary, that I have known some learned men, very much conversant in the writings of Plato, who could not believe that this was really his opinion. But that he did truly hold such opinion, is to me evident: *1st*, From his own writings; particularly, the *Philebus*, which I quoted above, the *Sophista*, and the *Parmenides*; in which last he treats professedly of *ideas*, and of the *one*, and states several different opinions concerning them. And, indeed, as I said before, this doctrine of ideas runs through his whole philosophy, and is hardly ever out of his view: So that it is not from a single passage that we collect this opinion; but from the whole strain of his writings.

2dly, If there were any doubt as to Plato's meaning, or, if we could suppose that it was not his own opinion, but only put into the mouth of the interlocutors in his dialogues,

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and maintained, by way of argument, as he maintains several things which he certainly did not believe himself, we have the testimony of his scholar Aristotle; who has told us, in the most express terms, that his opinion was such as I have stated it; and not only so, but he has bestowed the greatest pains, and employed all the acuteness of his genius, and all the subtlety of his logic, in refuting it; and this not in one place only, but in many passages both of his *Metaphysics* and *Physics*, and even in his *Ethics*; where he makes an apology for differing from a man for whom he had so great a regard *. In short, it appears from the writings of Aristotle, that this was the chief ground of that difference of opinion, which, it is well known, was betwixt him and his master. I know there are some who think, that Aristotle has often misrepresented the opinions of other philosophers, that he might have the pleasure of refuting them, and exposing their absurdity; and, among others, his commentator Philoponus is of that opi-

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* *Ethic. ad Nicom. lib. 1. cap. 4.*

nion *. But whatever freedom he might have used with the opinions of more antient philosophers, we can hardly believe that he would have ventured to misrepresent the opinion of his own master Plato, which must have been well known to many others. But, besides, he has not only told us, that this was the opinion of Plato, but he has also given us a probable enough account how he came to form it. He had learned, says he, when he was very young, from some disciples of Heraclitus with whom he conversed, that all material things were in a perpetual flux; and therefore that there could be no science or distinct comprehension of them: And this always continued to be his opinion. Afterwards he became the scholar of Socra-

* This passage is to be found in *Philoponus's commentary* upon Aristotle's third book of General Physics, or, *De naturali audcultatione*, where he plainly says, that it was a common practice of Aristotle to affect to misunderstand the antient philosophers, and to refute their words, not their meaning. *Και ούτως επιλαμβάνεται του λόγου, ες δελοιστι πιστάχου το φαινομενον ελεγχων, και ου τινι δεικνυει τωι αρχαιων.* A most grievous charge against his candour, by a disciple too of his school, and one, who, in other respects, was his great admirer.

tes, whose philosophy was entirely confined to morals; but who first attempted, says our author, to define and investigate generals. This Plato learned from him; but, perceiving that there could be neither definition nor science of the objects of sense, for the reason just now mentioned, and thinking it was necessary that the subjects of science should be something fixed and permanent: He, therefore, introduced *ideas*, which he conceived to be eternal and unchangeable, and to have an existence by themselves, independent of all *material things* *.

But, 3dly, Suppose that we should reject the authority of Aristotle altogether in this matter, the same Philoponus, who has accused this philosopher of misrepresenting the opinions of ancient philosophers, has himself stated the opinion of Plato to be such as Aristotle has represented it. For in his commentary upon the second book of Aristotle's Physics, speaking of ideas, or forms separated from all matter †, he says, they

* *Metaphys. lib. 6. cap. 1.*

† *Ἐκείνη αὐτή*, that is what Mr Harris calls *previous forms*, in contradistinction to forms existing either *in material substances*, or abstracted *from* them by our understanding.

are either, according to Plato, substances, having a separate existence by themselves †, or they are forms existing only in the mind of the creator ‡; which was the opinion of Aristotle §.

Lastly, This opinion concerning ideas, was also the opinion of the Pythagoreans; from whom Plato took almost his whole philosophy, and particularly, as it appears, his doctrine of ideas: For in that genuine piece of Pythagorean philosophy yet preserved to us, I mean the treatise of Timæus the Locrian, *De anima mundi*, ideas are mentioned as one of the three principles of things *; and, as I had occasion to observe before, it was from the school of Pythago-

† Αυτα καθ' αυτα υφιστάσια.

‡ Philoponus's expression is, Λογοι εν τη δημιουργει; for understanding which, we are to know, that in the language of Aristotle's philosophy, the thing existing *materially*, that is, existing *materially*, was only called *ουσια*; but the idea of it was no more than the *λογος της ουσιας*, or simply *λογος*.

§ And, besides Philoponus, his master Ammonius Hermias, in his Commentary on Porphyry, *εις τας πινεις φωνας*, fol. 30. speaking of Plato's opinion of those ideas, says, Ουδι γαρ ἄλλως νοηται αυτα εναι του δημιουργου βουλησαι, αλλω παλιν ουσιας τινας νοηται, προς ἃς αφορμηλια του δημιουργου, ὡς προς ἀρχιλυπουσ ενουσιας, τα τηδι ποιουν.

* The three principles are, the *idea*, the *matter*, and the *body*, falling under the senses, which is the produce

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ras that Plato borrowed the term *idea*, which is now become so common a word in the English language. Further, there is a remarkable passage in Simplicius's commentary upon the first book of Aristotle's *Physics*, which shows, that the doctrine of ideas made an essential part of the *Theology* of the Pythagoreans: For they not only maintained, that ideas existed separately by themselves, but they made them to be a part of the divine nature; which they understood to be threefold, consisting of so many *ones* or *persons*, as we may call them. "The *first one* was of transcendent excellency, above all *entity* and *substance*. The *second* was *ideas*, that is, intelligible things, which have a real and true existence. The *third* was *animal life*, or spirit, as we may call it, participating of the *first one* and of *ideas*." If Simplicius delivered this upon his own authority only, we might justly doubt of it; but he quotes for it one Moderatus, a philosopher who appears to have given the best account of the doctrines of Pythagoras, and who for that reason is fre-

of the two first. The words are, Τα δι ζυμπασια, ιδιασ
ἄλλας, εισδησιον τε, εἰον εκγοτος τουτων. *Timaeus*, in *initio*,

quently quoted by Porphyry in his life of Pythagoras. Simplicius gives us the very words of this philosopher, which I have transcribed below *.

I have dwelt the longer upon this difference betwixt Plato and his scholar, that many authors, both antient and modern, have laboured much to prove, that there was really no difference betwixt them : But, however successful they may have been in reconciling

* Οὗτος γὰρ, (meaning Moderatus), κατὰ τοὺς Πυθαγορείους, τὸ μὲν πρῶτον ἐν ὄψει τὸ εἶναι καὶ πασαι οὐσίαι ἀποφανίσιαι· τὸ δὲ δεύτερον ἐν, ὄψει ἔστι τὸ εἶναι· οὐ καὶ νοητῶν, τὰ εἶδη φησὶν ἕνα· τὸ δὲ τρίτον, ὅτι ἐστὶ ψυχικῶν, μίσησαν τὸ εἶναι καὶ τῶν αἰδῶν, fol. 50. This passage plainly shews, that Plato took from the Pythagoreans, not only his doctrine of *ideas*, but his *theology*, and particularly his notion of the *Trinity* in the divine nature, which I took occasion to mention in a former note. This notion appears to me to be as antient as any thing in the Greek philosophy, and very probably was brought by Pythagoras from Egypt with the rest of his philosophy.

Those who are learned in the *Hebrew*, and the books of *Moses*, may perhaps find the *Platonic* doctrine of *ideas* in that passage of the second chapter of *Genesis*, where it is said, *That God made every plant in the field before it was in the earth, and every herb in the field before it grew*; which I think can hardly be understood but of the *ideas* of such plants and herbs. And the same learned men may also find some connection betwixt that *water*, which Simplicius, in the same book, fol. 51. says the Egyptians made the symbol of the *first matter*, and *that deep, and those waters*, upon which *Moses* says the Spirit of God moved when the world was created.

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them upon other points, they are, I think, clearly irreconcilable with respect to ideas.

The very reverse of this opinion of Plato is the notion of certain philosophers of our own time concerning ideas. For as Plato maintains, that ideas are substances, which have a separate existence by themselves out of any mind, these philosophers, on the other hand, assert, that they have no existence at all, not even in the mind; that all our conceptions are perceptions of sense, being nothing else but *impressions* made upon the mind by external objects, through the medium of the organs of sense. These impressions being preserved in the memory, are what we call *ideas*; which therefore are nothing but fainter perceptions of sense. This doctrine was first advanced by Dr Berkeley, Bishop of Cloyne, and afterwards supported, and much enlarged upon, by a later philosopher, in a work, entitled, *A treatise of Human Nature*; to which, as he has not put his name, nor ever publicly acknowledged it, so far as I know, I think he has a right not to be named. That this later writer, who professes the sceptical philosophy, and whose intention appears to be, to

overturn all science and evidence of every kind, should be fond of a doctrine that suits so well with his purpose, is no wonder at all: But I do wonder that Dr Berkeley, whose intentions were certainly good, however erroneous his philosophy may be, should have advanced it; more especially as it does not appear to me to have any connection with his favourite doctrine of the *nonexistence of matter*, which he maintained with the pious design of striking at the very root of *Atheism*, then entirely founded upon the doctrine of *materialism*. For he thought that, if he could show that *matter* did not exist, it would follow of necessary consequence, that there was nothing in the universe but *mind*; not foreseeing, that a philosopher was to arise, who should deny the existence of mind as well as body.

The consequence of the opinion of these gentlemen, concerning ideas, certainly is, that there is no science, demonstration, nor general truth of any kind; nay, there cannot be so much as a general proposition, nor indeed any proposition, as one term at least of a proposition must be a *general term*, expressing some *general notion*. If, therefore, these gentlemen are in the right, there is an

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end of all belief in religion, morals, philosophy, or science of any kind. *2dly*, There is no such faculty of the human mind as *intellect*; the business of which, as we have shewn, is, to abstract, and to consider separately, what is joined in nature, and in that way is presented to the senses. For, if we have no perception of things in any other way, it is evident, that we have no intellect, nor any thing besides *sense*, *memory*, and *imagination*. These are all the powers of human nature, according to those philosophers; and these the brutes possess as well as we. So that this philosophy, at the same time that it destroys all science and certainty of every kind, degrades us to a level with the brute, by stripping us of that intellect which, by the antient philosophers, was thought to be the distinguishing characteristic of human nature.

As this philosophy leads to such alarming consequences, and is entirely subversive of the theory which I have endeavoured to establish, that the mind operates by itself, without the assistance of *sense*, and, consequently, destroys altogether the distinction that I have been at so much pains to establish betwixt *perceptions of sense* and *ideas*, I

must stop to consider it a little more particularly. And, first, I would ask these gentlemen, whether their proposition be general, that no such ideas as I suppose, exist at all in any mind or intelligence? or, do they only maintain, that they exist not in the human mind? The first of these propositions, I am persuaded Dr Berkeley at least did not mean to assert, tho' he has expressed himself in much too general terms: For he certainly believed that there exists a *supreme mind*; and, if so, he could not believe that this mind perceived by organs of sense, and had no other perceptions.

But, without entering into such high metaphysical disquisitions, let us confine ourselves to man, and inquire, whether in his mind there are any such ideas. Now this appears to me to be truly a question of fact, Whether does man actually divide, abstract, and generalise, in the manner I have described? or does he consider things in no other way than as they are presented to him by the senses? If therefore it be a question of fact, every man's consciousness of what passes in his own mind must determine it. Now I ask any man of science, (for I admit it is only such that form an idea perfectly),

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Whether he cannot separate or abstract any particular property of any subject from its other properties, and make *that* property the object of the mind's contemplation by itself? whether he cannot conceive that quality as existing in many other subjects? and, lastly, whether he cannot consider *that* which those several subjects have in common, laying aside the consideration of what may belong to each of them in particular? I ask a geometer, *e. g.* Whether he cannot separate that property of a figure, of being bounded by three lines, from any other property belonging to the figure, and consider that property by itself? whether he cannot perceive that such a property belongs to many other figures? and whether he cannot consider this common property by itself, without taking into his consideration the particular properties of each figure? Whether he cannot reason upon this common nature of a triangle, without considering any other quality which may belong to it? and whether it would not be the greatest defect in a geometer, and such as would render him utterly incapable ever to attain to any the least degree of excellence in the science, if he could not conceive and argue about a triangle?

in general, without embarrassing his thoughts, by considering whether it was of wood or of metal, whether it was white or black, whether isosceles or scalenum?

There is another science still more abstract than geometry, I mean arithmetic. For, as Aristotle has observed, points, lines, and figures have *position*; whereas number has none, but is one of the most general affections of being, whereby things are abstracted from all their accidents, and all the qualities that difference them one from another, even from the circumstances of *time* and *place*, which belong to all sublunary things: And, therefore, numbers are most properly used by the Pythagoreans as symbols of things immaterial and eternal. Now, I ask not only the man who understands the science of numbers, but every school-boy, who learns the common rules of arithmetic, whether, when he adds or subtracts, divides or multiplies, he thinks of so many men, horses, or oxen? whether, in short, his sense or imagination has any thing to do in these arithmetical operations? and whether, on the contrary, it is not this most abstract idea of number upon which he operates? And, as to men who understand the science, it is ab-

comes an animal of prey by acquired habit *. The histories of antient nations inform us, that the people in the first ages lived only upon the fruits of the earth †; and that man is not naturally an animal of prey, seems to be proved by what Mon-

* Man did not become carnivorous till he became a hunter, and he could not be a hunter till he had invented some kind of arms; and not even immediately after that; for the Orang Outangs, though they use sticks, do not hunt, but live upon the natural fruits of the earth. It was therefore necessity which drove men to this unnatural diet, and luxury has continued it; at least this is the opinion of Plutarch, *περὶ Ἰακχοφασίας*, p. 456. *Edit. Froben.*

† *Diodorus*, in the beginning of his history, *lib. 1. cap. 8. edit. Wesseling.* gives this account of the way of living of the first men. He says, they subsisted upon herbs, and the fruits of trees. *Pausanias*, in his description of Greece, *lib. 8. in initio*, informs us, that, according to the traditions of the Arcadians, a very antient people of Greece, the first inhabitants of that country lived in the same manner; and, even in the times of history, we see, from an oracle recorded by *Herodotus*, that they were then eaters of acorns, *lib. 1. cap. 66.* The poetical fictions concerning the golden age have, like most of the Greek fables, a foundation in historical truth; particularly in that circumstance, of men living upon the fruits of the earth, without blood or slaughter. For the account which the antient Greek poets, who were their first historians, as well as philosophers and divines, give us of that

sense of sight. Now, says he, I can lay aside the consideration of the white paper, the black lines, and I can also throw out of my view, whether it be a great or small figure, right-angled, acute or obtuse angled, and can consider only its quality of being a plain figure, bounded by three straight lines, to which I give the name of *triangle*; and this is a general term, applicable to all plain figures bounded by three right lines, without any other additional circumstance.

Now, I should desire to know, whether the idea described by this writer is not precisely what other philosophers call an *abstract* idea? 2dly, I would ask this gentleman, by what faculty of the mind this discrimination of the qualities of a triangle is performed, so that some of them are made the objects of the mind's contemplation, while others of them are set out of its sight? He will not surely say it is *sense*; because *sense* discriminates nothing, but without distinction perceives every quality of an object that is presented to it, not considering whether it be common to the kind, or peculiar to the individual. Neither is it *imagination*; which is nothing else but a weaker sensation. It is evident, therefore, that it must be some faculty different from either

of these two, and this faculty is what I call *intellect*; unless it could be shewn, that there is any faculty of the human mind by which it perceives or knows any thing, other than sense, imagination, and intellect.

It is said by this writer, That the triangle upon the paper is truly the triangle which is perceived by the mind, but it is considered as *representing* all other triangles. But this appears to me to be playing with words, and speaking in figure and metaphor, not with philosophical propriety and exactness. For what is meant by the word *representing*? If it signifies, that the triangle upon the paper stands for a sign of the idea of triangle, in the same manner that the word *triangle* does in speaking, it is admitted. If, on the other hand, it is meant, that the triangle upon the paper is the exact image of the triangle in the mind, it is denied. For how can a triangle, that must of necessity be either right-angled, acute or obtuse-angled, represent in that sense a triangle which this writer allows to be considered by the mind without any of those qualities?

The diagrams, however, used by geometers in demonstrating their propositions, may

offibly have led those gentlemen into so gross an error. But they ought to have considered, that such diagrams are no other than signs of ideas, and that it is the weakness of our intellect which obliges us to take that assistance from sense. And accordingly we see, that men who are far advanced in the science, can go through long demonstrations without such assistance; and though we do not possess, we may at least conceive, such a degree of intellect, as to have no need of such material signs or symbols, but be able to converse with the pure intellectual forms themselves. But, even in our present state, to argue, that, because we use signs of ideas, therefore we have no ideas, is the same thing as if one should argue, that, because we use another sort of signs, namely sounds, therefore we have no conceptions out of sounds. Now the fact is so far otherwise, that, when we hear or read any thing attentively, we do not at all attend to the sounds, letters, or words, but only to the things signified by them.

The use, however, of these symbols of ideas has contributed not a little to confound the perceptions of sense with ideas. It may not therefore be improper to examine how

the case stands with those who have not the use of those symbols, which are either visible objects, such as diagrams in geometry, or sounds, such as words. Now, let us take the instance of Mr Saunderson the blind professor of mathematics in the university of Cambridge. He certainly conceived a triangle that was neither black nor white, nor of any other colour. If, therefore, he had the idea of a triangle, abstracted from all colour, Why might he not conceive it abstracted from every other sensible quality? It will, no doubt, be said, that he must have conceived it as hard or soft, or of some other quality of which we have the perception by the sense of feeling. But why not abstract these qualities from it, as well as the qualities perceived by the sight? The answer I know will be, that he had the sense of feeling, though not that of sight; and, if he had wanted both, he could have had no idea at all of a triangle. But this is saying no more than that our senses, in this state of our existence, are the inlets to our knowledge, and that they furnish the materials, out of which our ideas and all our knowledge is made. But as this instance of the blind geometer shews, that there is no difficulty in conceiving our ideas

abstracted from one kind of sensations; so there can be no difficulty in conceiving them abstracted from any other, or from all, if we can exalt our thoughts to the conception of beings which are not connected with matter, nor have any need of organs of sense to bring in to them the materials of knowledge.

Again, let us consider the case of deaf and dumb persons, who cannot use that symbol of ideas we call words. They do not, therefore, think, as we commonly do, in words, but in what appears to me a better manner; for they are conversant with the ideas themselves. This I was told by one of those persons, a very ingenious young gentleman, and who is a man of science, having learned both arithmetic and the elements of geometry*. As his ideas, therefore, were cleared of the incumbrance of words, I was curious to know, whether they were not also unembarrassed with other

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* His name is *Sbirreff*. He is by profession a painter, and was taught to articulate by Mr Bairdwood, a man who makes a business of teaching deaf persons to speak, and of whom I shall have occasion to make mention hereafter. Though, therefore, he have the use of words, yet, when I asked him the question, whether, in thinking, he annexed any words to his ideas? he readily answered, that he did not. As to sounds, it was impossible he should. It was, therefore, only the figures of the words in writing or printing, or the motion of the organs in articulating them, that he could annex to his ideas. But even these he did not annex. He understands and writes English very well, both in verse and prose.

ceptions of sense, and asked him particularly, whether he did not ascribe some colour, such as black or white, to his notion of a triangle, a thing not unlikely, as he was by profession a painter, and consequently much conversant in colours? He answered readily and explicitly, that his idea of a triangle had no colour. And when I asked him whether, in his arithmetical operations, he applied the numbers to particular things? he said, he did not. This decision of a man who had never thought upon the subject, and consequently had no prejudice in favour of either side of the question, I consider as the voice of nature attesting a fact, which he must have known as well as the greatest philosopher.

The arguments used by those philosophers who deny abstraction, tend chiefly to prove, that ideas have no *real existence*, and that they cannot be apprehended either by sense or imagination: For who can perceive by the sense, or figure in his imagination, a triangle, *e. g.* that is neither equilateral, isosceles, nor scalenum? But this is arguing against the ideas of Plato, not those of Aristotle. And, in this way, the ancient philosophers, and particularly Sextus Empiri-

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cus *, the great defender of the Sceptic philosophy, has argued against *abstract ideas*, not denying their existence *in the human mind*, but maintaining, that it was impossible they could really exist *in nature*. And indeed, if these philosophers had entered a little more into that antient controversy, and known perfectly the difference betwixt those two kinds of ideas, they never would have supposed, that the ideas of Aristotle, which are the operation of mind alone, could exist any where else but in the mind, or be perceived by the sense, or figured by the imagination, any more than mind itself. And so much for this strange opinion concerning ideas, which appears to me to be entirely new, and unsupported by any authority, antient or modern, and as repugnant to sound philosophy as to common understanding. I

* This writer is of later times, having lived, as I conjecture, in the age of the Antonines; but there are very few writers of the best times that exceed him in purity or elegance of style: And I would advise all our sceptical writers to study him diligently, not only for the improvement of their style, if they happen to understand the original, (or, if they do not, there is a very good Latin translation of him), but of their matter; for there is as great copiousness of argument in him as in any writer I know. I would also advise such of them as write against the Christian religion, to study Julian the Emperor's work of that kind, preserved to us by one of the fathers of the church, Cyrillus; who, in answering him, has done his antagonist the justice to give us his own words. They will there learn more plausible arguments, and much more elegantly expressed, than any they have used.

will only add, that the philosophy of Mr Locke appears to me to have led into this, as well as into other errors: For, from the way in which he talks of abstract ideas, it would seem he did not believe that they existed even in the mind. He says of the abstract idea of a triangle, 'That, in effect, 'it is somewhat imperfect that cannot exist, 'an idea wherein some parts of several different and inconsistent ideas are put together *.' And accordingly Bishop Berkeley avails himself of this authority from Mr Locke, in arguing against abstract ideas †. Indeed, it is no wonder that a philosopher, such as Mr Locke, who derives every thing from sense and matter, and seems to know nothing beyond these, should not believe in the existence of ideas that are altogether the work of mind, operating by itself, without the assistance of body.

Between those two opinions, so opposite, lies the opinion of the Peripatetic school, which, it may be thought, I have explained at too great length; and, instead of a treatise upon language, have written a system of the philosophy of mind. But it should be considered, that I have undertaken to give a phi-

* *Essay on the human understanding*, book 4. ch. 7. § 9.

† *Theory of Vision*, p. 147.

lofophical account of the Origin and Progreſs of Language, which it would have been impoſſible for me to give, if I had not entered into the philoſophy of mind and ideas ; without the knowledge of which, the ſtudy of language is the moſt barren of all ſtudies, unworthy of a philoſopher or man of ſcience. But further, I hope this inquiry into the nature and origin of our ideas will facilitate the deciſion of the queſtion, of which I am to treat in the next chapter, namely, Whether ideas be the natural growth of the mind, or the fruit of acquired habit ?

C H A P. X.

*That Ideas are formed by the Mind, not naturally, but in conſequence of acquired Habit.
—General Reflections upon the Subject.*

I KNOW that the argument I am now to maintain will appear to many a very ungracious argument, and will probably draw upon me much cenſure. Are we then of the ſame nature, they will ſay, with the brute beaſts ? And is there no difference between us and them, except what culture and

education makes? To which I answer, first, That I must be understood to speak of the present nature of man, not of that more perfect state, in which, I think, philosophy *, as well as religion, assures us he formerly was. Secondly, I say, that, even in this our fallen state, our nature bears evident marks of superior dignity and excellence above that of the brute. This I think I have shewn in the account that I have given of the operations of the human mind, where I have endeavoured to mark the boundaries betwixt them and us; and I have very much blamed certain philosophers, for stripping us of that prime faculty, which makes the chief distinction betwixt our nature and that of the brute, I mean *intellect*. But there is certain-

* This was the opinion of Plato, as appears from the *Timæus*, p. 42. edit. Stephani; a doctrine which he learned in the Pythagorean school. See Hierocles's commentary upon the *aurea carmina* of Pythagoras, ad v. 54. et seqq. See also Plotinus, Lib. 8. cap. 1. *Ennead.* 4. From all which passages it clearly appears to have been the doctrine of the Pythagorean school, that man was once in a more perfect state, from which he fell; and that he is in this life only by way of punishment and probation; and that his great business in this his present state is, to endeavour to regain his former and better state, *το τὸ ἀποπέρας καὶ ἀριστὸν εἶδος ἔχειν*, to use Plato's expression in the passage above quoted from the *Timæus*. See also, what I have said, in the note upon chap. 1. of book 1. concerning Plato's belief in the doctrine of the trinity, which is to be found in the writings of all the later Platonics above named, and particularly, in those of Proclus. It is therefore impossible to deny, that this was a most christian philosophy, and, accordingly, it was the philosophy of the fathers of the church,

ly no heresy in maintaining, that man has, by his fall, lost this faculty, as well as many others, so far at least as to retain only the *capacity* of *acquiring* it: And, instead of being a degradation of human nature, it seems to be our chief praise, that, by our own sagacity and industry, we have been able to improve so much the scanty stock that nature, in this our degenerate state, has bestowed upon us, and to proceed, at least so far, towards regaining our former more perfect state *; while the brutes remain in the state in which nature has placed them, except in so far as their natural instinct is improved by the culture we bestow upon them. It is enough, I think, for the honour of our species, that our *capacity* is allowed to be great-

* What *supernatural* assistance we may expect towards restoring us to our original state, and how that assistance is to be obtained, is an inquiry that does not belong to philosophy, but religion. I shall only add, that the antient philosophers above quoted, were sufficiently sensible of the necessity of such assistance, and that philosophy alone was not sufficient. They therefore prescribed a certain diet and course of life, together with certain *expiations*, *lustrations*, and *initiations*, by which, they said, the mind was exalted above this mortal state, and brought nearer to divinity. These were kept *εσ απορήτοις* among the Pythagoreans, and their followers in later times, such as Porphyry, Jamblichus, Proclus, and Hierocles, and made a new kind of philosophy, religious and mystical, which they called *φιλοσοφία τελειωτική*, or *καθαρτική*, by which was effected, as they said, what they called the *λυσις ψυχης*, or delivery of the soul from thralldom and bondage. See Hierocles's commentary upon the aurea carmina of Pythagoras, v. 67. See also Laertius, in vita Pythagoræ, and Marinus's life of Proclus, *versus finem*.

er, and that we have from nature a greater facility in forming *habits* and acquiring *faculties* that are not born with us. Further than this, I cannot, though I should give offence, carry the superiority of our nature above the brute, in our present state; nor can I exactly determine how far the brute might be carried by culture and education. Only thus much I think I may say, that his progress would be much slower, for the reason just now mentioned; and, not having from nature the same capability, he could not, with any culture, go so far.—But to proceed in our argument.

From the sketch I have given of the *ideal* world, it appears to be entirely different from the *natural*. For, in the *first* place, in the ideal world, there is nothing but *shadowy forms*, as those would call them who believe that nothing really exists except what is *material*; whereas the *natural* consists of substances, compounded of *matter and form*.
Secondly, The *natural* world is a composition of infinite variety; of which it is true, in some sense, what the ancient philosopher said that I quoted above, that all things are mixed with all; not as in the chaos of the poets, without order or regularity,

Frigida ubi pugnant calidis, humentia siccis;
 Mollia cum duris; sine pondere habentia pondus;

but with the most perfect order and regularity, though with such a mixture in the composition, that almost every thing participates of every thing, and the most distant extremes run into one another. In the *ideal* world it is just the reverse: For every thing there is separated and discriminated from every thing; and it is the great business of human intelligence, to untwist, as it were, this great web of nature, and show every thread by itself. *Thirdly*, As the objects in this world are different from those in the natural, so are the faculties by which we recognize those objects. The natural world we perceive by our *senses*, the ideal by our *intellec*t; two faculties altogether different in their nature and manner of operation.

The last difference I shall observe is, that the natural world opens upon us at our birth, at least in some degree, and our infancy and younger years are wholly employed in making discoveries in it; whereas it is evident, that the ideal world is not disclosed to us till a considerable time after our birth; for at first we are entirely immersed in matter, and it is only through the medium of sense and matter, as I have shewn, that we enter into this world of ideas*.

* There is another difference, which, though not immediately belonging to our subject, is well worth obser-

When I say this, I would not have it believed to be my opinion, that, however we are connected with matter at the time of our

ving by the philosopher; and it is this: That the ideal world, being entirely of our own creation, is, or ought to be, perfectly known to us, so that we should be able to define or explain the essence of every thing in it; whereas, in the world made by God, we know not the essence or constituent principles of any thing; for I deny that we can give a perfect definition of any natural substance. Not to speak of the *first matter* of the philosophers, which by all of them is allowed to be undefineable and incomprehensible, what do we know more of those bodies with which we are surrounded, and are daily conversant, or even of our own bodies, with which we are so intimately connected, except certain qualities or properties? But what constitutes the essence of any particular body, or of body in general, no man can tell. The common definition of *body* is, that which hath three dimensions. But this is telling us no more than that it is bounded in a certain way: And I ask, *What* is it that is thus bounded? It is also defined to be, that which resists, or fills place. But still I ask, *What* is it that has this quality of *resistence*, or *filling place*? I have already observed, that *Euclid*, in his definitions, has very properly not meddled with *space*, *extension*, *quantity*, or any other of those *universals* which are the subject of the first philosophy. He has also wisely abstained from making mention of *Corpus*, or *body*, even when he defines a solid. For he tells us, that a solid is *that* which hath length, breadth, and thickness, without telling us *what* it is; though he no doubt knew that it was body, and nothing else. But the subject of his science was not that undefineable thing we call *body*, but only the *boundaries* of body; which, being abstracted from body, are treated of by the geometer. It is therefore no impeachment of the certainty of the science, that *body*, which is what is contained within these boundaries, cannot be defined.

birth, there is any thing material, or congenial to matter, in the nature of our mind: For the reader, I hope, by what he has already seen of this work, will not believe that I am addicted to that *mad philosophy* * which excludes *mind* altogether from the system of nature, or, what is, if possible, still more absurd, supposes that our mind is the only mind in the universe. I have been taught a philosophy very different, from which I have learned, that there is a *governing mind* in the universe, *immaterial, eternal, and unchangeable*; that our minds are of a nature congenial to this supreme mind; and that there is in us, even at the time of our birth, a portion of those *celestial seeds*, of which the Latin poet, quitting poetical fiction, and assuming the philosopher, divinely sings,

Igneus est ollis vigor et COELESTIS ORIGO
Se minimibus,—

But he very properly adds this exception,

—quantum non noxia corpora tardant,

Terrenique hebetant artus, moribundaque membra.

Now, these incumbrances are so great when we first come into the world, and the *particle of the divinity* within us, as the ancients chose to call it, is then so immersed in matter, and *imbruted*, if I may so speak, that it

* *Insanientis dum sapientiae*

Consultus erro.

HOR,

cannot exert that power of *self-motion*, which is peculiar to its nature, but is altogether passive to material impulses, either from external objects, or from its own habitation of clay; I mean, from appetites and feelings arising from the body.

This is the natural state of man when he first appears upon this stage: And the question is, How he undergoes so great a change, as to become, of a creature merely passive and sensitive, active and intelligent? By what means does he enter into this intellectual world, so different from the natural, and become, as it were, a new creature? Is it by nature merely that this metamorphosis is brought about, as the worm is changed into a butterfly? or is it by habit which he acquires? Do not we at first learn to *think*, as we afterwards acquire *arts* and *sciences*? and does not the mind, by slow degrees, and very feeble attempts in the beginning, at last disengage itself from the entanglements of matter, and learn to exert its native power of intellect?

Before we proceed further in reasoning upon this subject, let us try what is to be learned from fact and experience, beginning with the infants of our own species. That

they have at first no ideas, and but very imperfect sensations, is a matter of fact that cannot be denied; and it is as certain, that they acquire their ideas, not by nature, as they do their bodily faculties, but by instruction, and by conversing with elderly persons. Now, suppose them deprived of this method of communication, how long may we suppose that their infancy of mind would last? I have been informed of an instance of a child, who was come to be betwixt eight and nine years of age, and had learned, not only to speak, but to read, and, by consequence, must have had ideas, however imperfect, when he lost his hearing by the small-pox, and continued deaf all his life after. At the age of five and twenty he was put under the care of Mr Braidwood, whom I mentioned before, and who professes a most curious art, of which I shall have occasion to make frequent mention afterwards, I mean the art of teaching the deaf to speak. Mr Braidwood told me, that, as he had been much neglected after the loss of his hearing, without the pains being bestowed upon him that are commonly bestowed upon deaf persons, he found him, even at that advanced age, almost totally void of ideas, and was

obliged to teach him to think as well as to speak. Yet this young man had been supplied with all the necessaries of life. But let us suppose that he had had all those necessaries to furnish for himself, can we believe, that, if he had been so employed, he ever would have learned to think, or have become a rational creature, even supposing that he had lived in company with such as himself?

In order to form a right judgement of this matter, let us consider the state of savage and barbarous nations. Those who have studied the history of *man*, not of particular nations only, that is, have studied history in the liberal and extensive view of discovering the nature of *man* from fact and experience, know very well, that all nations, even the most polished and civilized, of which we read in history, were originally barbarians; and that, as all the vegetables, such as the vine and the olive, which are now cultivated and improved by art, and in like manner the brute animals that are tamed, were at first wild; so likewise man himself was originally a wild savage animal, till he was tamed, and, as I may say, *humanized*, by civility and arts. Whoever, therefore,

would trace human nature up to its source, must study very diligently the manners of barbarous nations, instead of forming theories of *man* from what he observes among civilized nations. Whether we can, in that way, by any discoveries hitherto made, trace man up to what I suppose his original state to have been, may perhaps be doubted; but it is certain we can come very near it: For we are sure, that there have been in the world, and are still, herds of men (for they do not deserve the name of nations) living in a state almost entirely brutish, and indeed, in some respects, more wild than that of certain brutes, as they have neither government nor arts*. Some of them who are advanced so far as civil society and language, have nevertheless ideas exceedingly imperfect: For, though they have general notions, without which there could be no language, they can hardly be said to have abstracted ideas, as shall be shewn when we come to speak of the barbarous languages. From such beginnings, however, men proceed to form distinct ideas; then they advance to arts and sciences, and so on to refinement and politeness. Now,

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* Of such nations more will be said in the sequel,

wherever there is a progress, there must be a beginning; and the beginning in this case can be no other than the mere animal: For in tracing back the progress, where else can we stop? If we have discovered so many links of the chain, we are at liberty to suppose the rest, and conclude, that the beginning of it must hold of that common nature which connects us with the rest of the animal creation.

From savage men we are naturally led to consider the condition of the brutes; betwixt whom and the savages there is such a resemblance, that there are many who will hardly admit of any difference; and even betwixt us and them at the time of our birth, and for some considerable time after, there is not, as I have already observed, any material difference. The mind of the brute (so I call the inward principle in him that governs his motions and actions) is inseparably connected with his body, and bound in the chains of matter, in the same manner that we are when we first come into the world. And accordingly, in the first operations of our mind, we see the very same process: For, they have the same perceptions of sense that we have; they preserve

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those perceptions in their memory or imagination; and they have also, as well as we, a notion of *sameness*, *likeness*, or *diversity*, in the objects of sense; and they recognize the *species* in the *individual*, as readily as our children do. Does not this plainly indicate, that there is no *natural* difference betwixt our minds and theirs, and that the superiority we have over them is *adventitious*, and from *acquired habit*? How far the brute might go in that way, we have no sufficient experience to determine with any certainty. If we can believe some stories told of them, and by philosophers too, we cannot deny their capacity of acquiring the habit, not only of forming some general notions, which may be called ideas, but of comparing them together; that is, of reasoning. The story told by Mr Locke, of the Brazil parrot belonging to Prince Maurice of Nassau, is well known. And Porphyry, the greatest philosopher, as well as best writer of his age, relates, that crows and magpies, and parrots, (and another bird that he calls *ichthys*), were taught, in his time, not only to imitate human speech, but to attend to what was told them, and to remember it; and many of them, says he, have learned to in-

form against those whom they saw doing any mischief in the house. And he himself, he says, tamed a partridge that he found some where about Carthage, to such a degree, that it not only played and fondled with him, but answered him when he spoke to it, in a voice different from that in which the partridges call one another; but was so well bred, that it never made this noise but when it was spoken to*. And in this work he maintains, that all animals who have sense and memory are capable of reason: And this, he says, is not only his opinion, but that of the Pythagoreans †; the greatest philosophers, in my opinion, that ever existed, next to the masters of their master, I mean the Egyptian priests. And he adds, that, besides the Pythagoreans, Plato, Aristotle, Empedocles, and Democritus, were of the same opinion ‡. One thing cannot be denied, that their natures may be very much improved by use and instruction, by which they may be made to do things that are really wonderful, and far exceeding their natural power of instinct. There is a man in England at present, who has practised

* *Porphyr. De Abst. lib. 3. cap. 4.*

† *Ibid. cap. 1.*

‡ *Porphyr. De Abst. lib. 3. cap. 6. in fine.*

more upon them, and with greater success, than I believe any body living; and he says, as I am informed, that, if they lived long enough, and pains sufficient were taken upon them, it is impossible to say to what lengths some of them might be carried; for there is a great difference among them, as well as us, in docility and natural capacity.

But allowing, that, in these two respects, we are superior to all the brute creation, and that we can go farther than the brute with any culture can go, (which I believe to be the case), this is saying no more than what I have already said, that we have by nature greater capabilities than they, and a greater facility of forming and improving habits; but I deny that there is any other difference betwixt us and them. We are for a time, like them, immersed in matter,
——*inclusi tenebris et carcere caeco.*

VIRG. *Æn.* 6.

Like them we acquire faculties, and improve our nature by use and instruction. Where then should the difference be, but where I have placed it? The maturity of age, we see, makes no such alteration upon their mind, as to take it out of the natural state: It does no more than give greater strength

to their bodies, and the perfect use of their senses; and perhaps by use and experience it may improve their instinct. What reasons, or what facts, can induce us to believe, that it should have any other effect upon us, so that, when we come to a certain time of life, we should instantly burst our prison of flesh and blood, and be transformed in a moment into rational creatures, without any use or instruction, or previous habit acquired? It is certainly much more probable, and more agreeable to the analogy of nature, and the progress which we observe in our species, from a state little better than that of the vegetable, to suppose, that we acquire ideas, as we do the arts and sciences, that are founded upon them; and that, as Nature has not given us the one, so she has not given us the other; and for the same reason, namely, that we have the capacity of acquiring both: For Nature is always frugal in her gifts; nor is she in any other instance so profuse, as to bestow upon one and the same animal, both the capacity of acquiring any faculty, and the actual possession of that faculty.

C H A P. XI.

Continuation of the Subject.—Ideas of Reflection not from Nature.

IN order to examine this question more closely, we must go back to the division that I have made of ideas, into those of *external objects*, and those of the *operations* of our own *mind*, or, as Mr Locke calls them, *ideas of reflection*. In forming the ideas of either kind, we may be said to study and investigate the nature of things; for we discover, in things of which we form the idea, that *common nature* which binds them together, and constitutes the genus or species under which we recognize them. By the ideas, therefore, formed from the perceptions of sense, we investigate the nature of *external objects*; by ideas of reflection, we study ourselves, and discover the nature of our mind, and its operations. The question then is, Whether those reflex acts of the mind, by which this discovery is made, are the mere operation of nature? or, Whether

this faculty of reflection is not acquired by use and exercise, like other faculties of which we are in possession.

In order to decide this question, we must consider the state of savages; who, as I have observed, are so much nearer the natural state of man than we, that it is from them only that we can form any idea of the *original* nature of man: And I will venture to affirm, that any man who attempts to form a system of *human nature* from what he observes among civilized nations only, will produce a system, not of *nature*, but of *art*; and, instead of the *natural* man, the workmanship of *God*, will exhibit an *artificial* creature of *human* institution *. Now, though we should suppose, that the mere savages, employed altogether either in gratify-

* See *Mons. Rousseau*, in his *Treatise on the inequality of Men*, where he ridicules the folly of those who think they understand human nature, because they know the character and manners of their own nation, and perhaps some of the neighbouring nations; and very wisely tell us, that *man* is the same in all ages and all nations.

I am very happy to find, that my notions, both with respect to the original state of human nature, and the origin of language, agree so perfectly with the notions of an author of so much genius, and original thought, as well as learning.

ing their natural appetites, or procuring the means of such gratification; wanting that leisure, and that assistance to knowledge, which civil society affords to speculative men; without curiosity also, or any desire of knowledge, which is known to be the character of all savages, would nevertheless apply themselves to the study of things without them: Is it possible to suppose, that they would turn their eyes inward, and carry their philosophy so far as to study their own natures? If we can suppose them to do this by nature merely, we may likewise suppose that they will, in the same way, invent all arts and sciences; for ideas are the foundation of all arts and sciences, which cannot exist without definitions; and these, as we have shewn, are nothing else but perfect ideas of the things defined, which necessarily must be preceded in order of time by ideas less perfect: And particularly of this most useful of all sciences, the science of man, the ground-work are the ideas of reflection, of which we are now speaking.

Not only is such a supposition altogether absurd in *theory*, but, in *fact*, it appears, as much as such a fact can be known, that savages have no such ideas. For even such

of them as have formed themselves into society, and have got the use of language and of other arts, have hardly any words to express the operations of mind. And in all languages, even those the most cultivated, the words of that kind are metaphors, borrowed from the objects of sense*. Now, as it is by language that we trace, with the greatest certainty, the progress of the human mind, it is evident, that ideas of reflection must have come only in process of time, and after ideas of external things were not only formed, but had got a name. We must therefore consider this kind of ideas, not as the first step of the progress of the human mind towards science and philosophy; so that, if we are at liberty to suppose it to be the work of nature, we cannot stop, but must likewise suppose every other step, and the arts and sciences themselves, to be the work of nature, and nothing at all to be produced by acquired habit.

It may be objected, That *consciousness* is held by all philosophers to be essential to human nature; so that, if a man is not conscious of what he does, he does not deserve the

* This, I think, is an observation of Mr Locke.

appellation of a human creature. Now, if a man knows that he *thinks, deliberates, chooses, &c.* he must necessarily have the idea of *thinking, deliberation, &c.*; and these are ideas of reflection.

In answer to this objection, I find it will be necessary to explain the nature of consciousness at some length, and in a manner different from that in which it hitherto has been treated by our philosophers.

C H A P. XII.

Of the Nature of Consciousness.—That it is the same with Reflection, and belongs to the intellectual Nature—Cannot, therefore, have place in a mere Savage.

MR Locke has said, that “Consciousness is inseparable from thinking, and essential to it, it being impossible for any one to perceive, without perceiving that he does perceive. When we see, hear, smell, taste, feel, meditate, or will a-

“ny thing, we know that we do so *.” And a later philosopher † has maintained, that every sentiment, and every perception of every kind, is necessarily accompanied with consciousness. Now, as there can be no consciousness without a reflex act of the mind upon itself, if those philosophers are in the right, it will follow of consequence, that *reflection* is as early as any perception, even the perceptions of sense; and therefore is from nature, and part of our original constitution. If this be good philosophy, the brutes, having perceptions of sense, are conscious of what they do as well as we, a consequence which, I believe, few persons would be willing to admit. The argument, therefore, appears to me to prove too much. But, as this is a method of confutation, not very convincing, I will further endeavour to shew, that it has no foundation in the nature of consciousness, when thoroughly investigated, and an exact definition given of it; which I think hitherto has not been done.

The object of consciousness is understood

* *Essay on the Human Understanding, book 2. chap.*
27. § 9.

† Mr de Maupertuis.—Letter 5.

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by all to be our own actions and operations, and chiefly what passes in our minds. Now, we are not conscious of the future, but only of the past. It is, therefore, evident that consciousness cannot be without memory, in which those past actions must be preserved.

But, *2do*, it is not sufficient that those actions be lodged in the memory, but they must be called up, presented to the mind, and made an object of its contemplation; otherwise we cannot be said to be conscious of any thing that we have done.

But, *3tio*, neither is this all; for the mind must not be excited to this reminiscence by any call from the body or its appetites. If, for example, a horse is prompted by hunger to remember that he was fed in such a field or such a stable, and, upon that recollection, goes to the field or stable, we do not therefore say, that he is *conscious* of having fed in such a place.

4to, It remains, therefore, that we are only conscious, when the mind of itself, and without any instigation from the body, or its appetites, but singly by virtue of that self-moving power, which, as I have said, is essential to mind, recollects any of its operations, and makes them the subject of

its contemplation; then, and then only, it can be properly said to *reflect*.

From these observations, the definition of consciousness or reflection (for I make them to be synonymous terms) may be thus collected. *Consciousness is the recollection of our past thoughts and actions, by the voluntary act of the mind, not prompted by the body, or any of its appetites.* The meaning of which last words is, that, in this matter, the mind acts entirely without the body, by its own innate powers. So that, according to this definition, consciousness belongs only to the rational, or, to speak more properly, the intellectual nature, which alone acts in that manner. When several recollections of this kind are compared together by the mind, and, from that comparison, the mind gets the idea of what is common to them; then it is said to have an *idea of reflection*.

If this be a true definition, then it follows, *1^{mo}*, That those philosophers are much mistaken, who maintain that every perception of sense is necessarily attended with consciousness, since it appears that there can be no consciousness, except when the mind acts without the assistance of the senses.

2^{do}, They are also mistaken in believing that we cannot think without being consci-

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ous that we think : For we certainly have many thoughts and actions too which are forgotten, and never become the objects of our reflection; and nothing is more true than the common saying, That we often act without reflection, or knowing what we are doing, going on in a course of action, often for a considerable time, without any reflex act of the mind upon itself.

3^{tho}, If we, who are accustomed to review our thoughts and actions, do often perceive and think in this manner, it is evident that the mere savage, whose mind is moved only by impulses from the body, must always do so; even if we suppose him come so far as to form ideas of external things, it is evident that he *may* do this, and I think *must* do it at first, without any reflex act of his mind upon its own operations. Nay, further, suppose that he is come so far as to reflect upon his own operations; yet, till he has compared those reflections together, and discerned what is common in them, he will have no idea of reflection.

And thus I think it is clearly proved, that ideas of reflection are not from nature.

C H A P. XIII.

That Ideas of external Objects are not from Nature.

SO far, therefore, we have proceeded in this argument, as to be able to affirm, with great certainty, that the *reflex act* of the mind upon itself, by which it is conscious of its own operations, is not from *nature*. Here then is one class of ideas which must be produced by *acquired habit*; and this creates at least a presumption, that the other set of ideas is to be derived from the same source: For in that way the system of the human mind will be much more uniform and consistent, than if we were to divide the matter, and suppose that one class of ideas arose from nature, and the other from acquired habit. Both, according to my hypothesis, are from the last-mentioned source; and nature has done no more than to furnish the materials, I mean the perceptions of sense; from which are derived, *mediately* or *immediately*, both classes of ideas.

But to come cloſer to the point,—it will be neceſſary, for the deciſion of this queſtion, that the reader ſhould recollect what we have ſaid concerning the nature of the *intellectual* world, and the formation of thoſe ideas which conſtitute it. We have ſeen how different in every reſpect it is from the *natural*; we have ſeen how we come by the knowledge of this laſt; and the queſtion is, How the *intellectual* is diſcloſed to us? To ſuppoſe that there is any ſecret communication betwixt our minds and ſuperior minds, by which it is *revealed* to us, is a kind of viſionary and enthuſiaſtical philoſophy that is now altogether exploded. The fact truly is, that every man is the architect of his own ideas, and forms a little intellectual world in his own mind.

How artificial the operation is by which he does ſo, we have endeavoured to explain: And indeed it may in ſome ſenſe be ſaid to be an *unnatural* operation, if we conſider that every thing here below conſiſts of *matter* and *form* joined together. It is from this *compound* we receive our firſt impreſſions; and it is with it only that, in our natural ſtate, we are converſant. To ſeparate,

therefore, matter from form, as we do in framing ideas, may be said to be an *unnatural* operation, since it is *disjoining* what *nature* has *joined*. And it must appear still more unnatural and artificial, if we further consider how long we were accustomed to view this compound in its natural state, before we began to make so violent an abstraction. This must make the operation at first most painful and laborious. It appears indeed easy to us, who are accustomed to it, by insensible degrees, from our early years, and assisted by instruction and conversation with those who have already formed the habit. But the philosopher, who can carry himself back to the first ages of the world, must be convinced, that, to a savage, nothing could be more difficult, than an operation, by which he learns to think in a way so different from that to which he had been accustomed. Even the vulgar among us, tho' they have the advantage of being educated among thinking and speaking men, make this abstraction of the *matter* from the *form* very clumsily, and, if I may be allowed to use the expression, leave always some of the

matter *sticking* to the form *. But how much more clumsily, and with how much more difficulty, must it be performed by the rude untaught savage?

Can we then suppose, that so *unnatural* an operation is the work of *nature*? or that what is performed with so much difficulty is a natural energy? The operations of nature, we see, are all easy, and they are performed as readily, and as well, at first as at last. Now this is certainly not true of the ideas of external things; for there is a progress in the formation of them, as shall be very clearly shewn from fact and observation, when we come to speak of the barbarous languages; and many abstractions

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* The philosophers of the peripatetic school used a comparison which was very proper to explain the clear separation, that there ought to be in every idea, of the *form* from the *matter*. They said the mind was to be considered as taking off the form or image of the thing, in the same manner as the wax takes the impression of the seal; for the wax takes that impression, without any part of the matter of the seal. See *Ammon. Herm.* in his commentary upon Porphyry *εις τας πιντε φωνας*. Ὅστις ἐκ κεριος λαβει το εἰκονημα του δακτυλου, μη προσλαβει τι της ὕλης. The hint appears to have been taken from the *Theætetus* of Plato, where he has the same comparison of ideas to the impressions of a seal upon wax.

which were not at all made at first, come afterwards to be made, till at last the idea ripens into that *perfect idea* which is the object of science. Even in our present state, we are daily forming new ideas, or making more perfect those we have already formed, in proportion as we advance in knowledge. For every man that learns any art or science, acquires ideas that he had not before. Thus a man, who studies geometry, gets the ideas of figures which he had not before; such as, *a rhombus, a rhomboid, a parallelopiped, &c.* And of the figures which he knew, he learns to distinguish species which before he did not attend to; such as, *equilateral, isosceles, and scalene triangles*, and the like. And as we advance in this and other sciences, we learn to correct our former ideas, and to acquire new and more perfect ones *. But,

* *Geometry* affords a very remarkable instance of this in the doctrine of *proportions*. After having learned that doctrine in the common way in which it is taught in our schools, if we study the fifth book of *Euclid*, we there learn an idea of proportion altogether new, and much more general and comprehensive, including *incommensurables*, as well as *commensurables*. This idea will appear to the young geometer so new and strange, that he will find it difficult to apprehend it, and more difficult still to make it familiar to him; and, before he perfectly understands it, and sees the consequences of it, he may be disposed to re-

setting aside philosophy and science, how many ideas has any common artist, that a man not skilled in the art never dreamed of, and which he has to learn, if he studies the art? How then can we suppose that a thing in which there is such progress, correction, and amendment, is a natural operation? or how can we doubt, that men acquired ideas at first, in the same manner as we acquire them now? only with much more labour and difficulty, and with much less accuracy, no doubt, as being unpractised in the art of thinking.

If, indeed, we were not so much creatures of artificial habit as it appears we are, it might be doubted, whether this faculty, as well as others, was not from nature. But the account I have given of human nature clearly shews, that it is almost wholly composed of artificial habits; and that even the perceptions of sense, which one should think were natural, if any thing belonging to us

jest it, as some modern smatterers in geometry have done. The same thing happens in other sciences, and in every branch of philosophy, till we come up to the *highest* philosophy, or *science of sciences*, as it may be called; where we find ideas that many persons are by nature incapable of forming, because they require a power of abstraction which few persons are possessed of.

were so, are, for the greater part, the result of acquired habit. In *seeing*, for example, we *naturally* perceive no distance, and see the object inverted, double, and of no greater magnitude than the picture upon the bottom of our eye: So that we see objects as we now see them, only by habits of *judging* acquired from experience and observation; without which, that most useful sense would hardly be of any use at all *. What reason, then, can we have to doubt, that our ideas, which are so much farther removed from sense and matter, are not the work of nature; and that there is nothing from that source, except the bare impulses of external objects upon our organs of sense, conveyed to the mind in some way that we cannot explain?

If any doubt upon this subject could remain, it appears to be entirely removed, by considering what I have so much laboured to establish, namely, that the ideas even of external objects are altogether the operation

* This is a discovery of *modern* philosophy, which was unknown to *Aristotle*: For he reckons *seeing* among those things which we do entirely by *nature*, not by *custom*. Οὐ γὰρ ἐκ τῆς πολλῆς ἰδέας, ἢ πολλῆς ἀπορίας, τὰς ἀεὶ ἴστας ἐλαφρῶν· ἀλλ' ἀνεκάλυπτον, ἔχοντες ἐμπειρίας, ὅτι χρησιμῶς ἐχόμεν. *Eth. Nicom.* lib. 2 cap. 1. whereas it appears to be, at least for the greater part, *what we learn to do by doing*.

of mind. The body, therefore, and its faculties, are in this argument entirely out of the question. So that we are not to inquire what faculties belong to the body, or at what time of life they are most perfect. Such inquiry might be very proper, if the question were concerning the perceptions of sense; but it has nothing to do with this question concerning ideas; in forming which the mind singly is employed. The only question, therefore, is, What influence the growth of the body has upon the mind? When the mind is to operate by the assistance of the body, it is evident that it will have a great deal, and that the mind will perform such operations much better, when the body has come to maturity, and the man has got the perfect use of all his senses. But how can the mind be thereby assisted in those operations which it performs by itself? It may be said, that during the time in which the body is growing, the mind improves by experience and observation; and I am persuaded it does so. It learns in that way, as we have seen, the use of the senses; and if it is admitted, that it learns in the same way to form ideas, there is an end of the question. But the hypothesis I am combating is, that

men do not learn to *think* by degrees, and from practice and experience, as they learn to *see*; but that, all at once, when we come to a certain age, intellect breaks out, like an animal out of its shell; and the mind, though conversant before with material forms only, is instantly enabled to lay aside the use of its instruments of perception, the senses, to *disembody*, if I may so speak, the *form*, and to contemplate the idea pure and unmixed. This hypothesis, when attentively considered, is really wild and phantastical, and altogether unsupported either by theory or fact.

The only way in which ideas could be conceived to be from nature, is to suppose, that they are formed by what we call *instinct*; which is an inward principle in animals, moving them to perform certain actions. But I say, *imo*, That the operations of instinct, being from nature, are *involuntary*; for they are not from the mind itself, but are certain determinations or dispositions of the mind to act, not proceeding from choice or deliberation, but impressed upon it by the author of nature for certain purposes. Whereas the forming of ideas is a *voluntary* act of the mind; by which, from certain motives, which shall hereafter be ex-

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plained, the mind is induced to study the nature of things, to observe what is common to *the many*, what peculiar to the *individual*; and in that way to form notions and ideas.

But, *2do*, Let us consider for what purposes instinct is given to animals. For this we are to seek among the brutes, in whom it is still the governing principle, as I admit it was once in our species. Now, among them, instinct serves no other purpose than to direct to what is necessary for the preservation of the individual, or the continuation of the species; nor is there the least reason to believe, that it ever served any other purpose among us. Now we are sure, from the example of the brutes, that ideas are not necessary for either of these purposes. Arts, indeed, may be necessary; and accordingly, some brutes have the practice of certain arts, such as *weaving* and *building*. They have not, however, ideas, but are directed to the practice of those arts by that superior impulse above-mentioned: And indeed, it is impossible to conceive how ideas by themselves, without arts, can be either necessary or useful for the preservation of the animal life in the individual, or the continuation

of it in the species. Instinct, therefore, would not have answered its end, if it had bestowed upon us *ideas*, without giving us at the same time *arts*; which it is certain it has not done: For there is no dividing the matter, or stopping betwixt the two; but we must say, either that nature has given us both ideas and arts, or that she has given us neither.

It may be thought by some, that we have from *instinct* a love for knowledge, and that this would be a sufficient motive to excite the mind, when we come to maturity, to study the nature of things, and to form ideas. And in support of this hypothesis, great authorities from philosophers might be quoted, to prove, that the desire of knowledge is natural to man*.

But I answer, *1mo*, That this is using the term *instinct* in a sense very different from the common acceptation of it; and, if we are to use such freedom with words, we may as well call by that name any motive directing us to any pursuit. But, *2do*, The love

* *Μαθηταιν ου μορον τοις φιλοσοφοις ηδιστοι, αλλα και τοις αλλοις ομοιως. Aristot. Poet. cap. 4.* And he assigns this as one of the natural causes why *poetry* and the other *arts* of *imitation*, please so much,

of knowledge belongs to the rational nature alone; of which only those philosophers must be understood to speak: For the mind, as soon as it comes to feel its own vigour, and to exert its power of contemplation, is delighted with the exercise of this its noblest faculty; and if it attains to any degree of perfection in such exercise, is infinitely more delighted with it than with any thing else. But the question here is, How our nature becomes rational, and how we first get that taste of knowledge, of which we are afterwards so fond? Till that happens, we can have no desire of it; for, according to the common saying, *Ignoti nulla cupido*. And accordingly we observe, that the most barbarous nations, that is, those who are nearest the original state we speak of, shew no desire of knowledge at all; which is one, among other reasons, that makes them pass among us for animals quite stupid and insensible, and little better than idiots.

If then ideas are not from instinct, they cannot be from nature in any other way than as other natural operations are, such as breathing and digestion. But this is too absurd to be maintained. It remains, therefore, that they must be from what I call *acquired*

habit. Now this habit is acquired by frequently doing the thing. If in this practice we have the assistance of a master, or if, without being taught, we have any pattern that we can imitate, we learn much faster. But, even without such assistance, by practice merely, and by observing what is done wrong, and correcting it, and so becoming our own masters, we learn at last to do the thing: and thus the habit is formed by similar or homogeneous energies, as Mr Harris has expressed it, that is, by doing the thing, we learn to do it *. And in this way men have learned to build, and to weave, and to practise other arts; and, among other things, to form ideas.

If it be objected, That it is impossible to do any thing before we have learned to do it, and that therefore we cannot learn to do any thing by doing it; the answer is, That we must have from nature the faculty of doing something of the kind, though very imperfectly; and upon that foundation going on, we learn at last to do the thing as it should

* Ἄ γὰρ οἱ μαθηταὶ ποιεῖν, ταῦτα ποιοῦντες μαθησόμενοι, οἱ αὐτοὶ οὐκ ἐμαρτυροῦντες οὐκ ἐμαρτυροῦντες γινώσκουσιν, καὶ κινητικὰς κινητικῶν. *Ethic. Nicomach. lib. 2. cap. 1.*

be done *. Thus a man could never learn to build, if he had not from nature the faculty of laying a stone; nor to weave, if he could not stretch out and arrange threads; nor to speak, if he had not organs for that purpose from nature, and could not move those organs, and put them in certain positions. In like manner, we could not form ideas, if we had not sense and memory; and, besides these, the faculty of separating things that are joined in nature, and of comparing two or more things together. This separation, and this comparison, will at first be very clumsily performed, like the rudiments and first beginnings of all arts. Things, for example, will not be sufficiently separated or sifted, but taken together, as it were, in great lumps; and the comparisons will be inaccurately made; so that similitudes will be observed which do not exist, and many will be overlooked that do exist. In this way, the ideas at first will be exceedingly imperfect, and hardly deserving the name.

* This objection was made by the *Sophists* in the days of Aristotle, as appears from his *Metaphysics*, lib. 9. cap. 8.; where it is answered very shortly, and indeed but in a word, according to the manner of Aristotle in his *Esoteric works*; but I think in the same way that I have answered it.

But the practice being constantly continued, they will be improved by degrees, till they come to be good enough for the ordinary purposes of life, and at last so perfect, as to be fit for the objects of science.

And thus, I think, I have proved, that the ideas of the objects of sense, as well as those of the operations of our own mind, are not from nature, but acquired; and if I shall be able to shew, from facts and examples, by what degrees they have been acquired, as I hope I shall in the sequel, the evidence I think must be allowed to be complete; for then the proposition will be proved, both *a priori* and *a posteriori*; that is, from fact as well as from theory.

C H A P. XIV.

Conclusion of the Subject of Ideas.—General View of Human Nature, and the Rank it possesses in the Scale of Being,—compared with superior Natures.

I cannot conclude this subject, without taking a general view of human nature, according to the account that I have given of it; which, I am persuaded, will be found agreeable to the general analogy of nature: For it seems to be a law of nature, that no species of thing is formed at once, but by steps and progression from one stage to another. Thus naturalists observe several different appearances betwixt the *seed* and the *vegetable*, the *embryo* and the *animal*. The principles of *body in general*, are, *points*, *lines*, and *surfaces*, which are not *body* *; and of *number*,

* It is in this way that the ancient *Sceptics* argued against the principles of *geometry*. What is a *point*? said they: Is it *body*? or is it *spirit*? And if it be neither one nor t'other, it has no existence at all. The answer is, That though it be not *body*, and much less *spirit*, it

the monad, and *duad*, which are not *numbers*; and, in general, the *elements* of things are different from the *things themselves*. There is the same progress, according to my hypothesis, in the formation of *man*, and the same distinction betwixt the *elements* of this species, and the *species* itself. The progress of his body I am not concerned with at present: But, with respect to the mind, the first observable step in its progress is sensation, or perception by sense; but, even before we arrive at that, there is a progress, though not commonly observed. For, as we have seen, *sense* is very imperfect at first; and it is only in process of time that this primary faculty, of all others the most natural, becomes complete. Next in order comes the faculty by which those perceptions, otherwise fleeting and transitory, are retained in the mind; for I am persuaded it is not so early as sensation, and therefore does not exist at all in new-born infants, nor perhaps for some considerable time after the birth. This retentive faculty is of two kinds; or perhaps only assumes two diffe-

is the *element* of body. See *Sextus Empiricus adversus geomet.*

rent names, according to the different ways in which it retains the sensations : For, if they are there *painted*, (to use a metaphor of Plato *), it is called *fancy*, or *imagination*; but, if they are only *written*, that is, simply preserved, without colour or shape, it is

* The passage is in the *Philebus*, p. 388. *Edit. Ficini.*

ΣΩ. Ἡ μνημη ταις αισθησει συμπιπλουσα εις ταύτων, κἀ-
 κωσα ε̄ περι ταύτα εστι τα παθηματα, φαινοίμαι μοι σχιδοι οιοι
 γραφειν ἡμων εν ταις ψυχαις τοτε λογους, κ. τ. λ.—ΠΡΩ.
 Που μιν ουδ ουδαι μοι, και αποδοχομαι τα ρηθηνα ούτων. ΣΩ.
 Ἀποδοχου δε και ἕτερον δημιουργοι ἡμων εν ταις ψυχαις εν τῷ
 τοτε χρόνῳ γινόμενον. ΠΡΩ. Τίνα; ΣΩ. Ζωγραφοι, ὅς μετα
 τῶ γραμματισθῆν, τῶν λεγόμενων εικονας εν τῇ ψυχῇ τούτων
 γραφει. ΠΡΩ. Πως δὲ τούτοις αὐ και ποτε λεγόμεν; ΣΩ.
 Ὅταν ἀπ' αἰθερος, ἢ τινος ἄλλης αισθησεως, τα τοτε δοξαζόμενα
 και λεγόμενα ἀπαράσῃ τις, τας τῶν δοξαζομένων και λεχθέντων
 εικονας εν αὐτῷ ὅρῳ πως.

This is well, but shortly said, and only by way of *metaphor* or *similitude*; which is one great fault that Aristotle finds with his master. For, says he, he does not tell us *what* a thing *is*, but *what* it is *like*. But even Aristotle himself does not satisfy me entirely by what he has said upon this subject, though he has taken a good deal of pains upon it in his books *De Anima et de Memoria*. The reader, if he likewise be not satisfied, may content himself with the following observations, till he shall find something better.

Memory and imagination (considering them as different faculties) agree in this, that they are both subsequent to sense, and prior to reason and intellect; adly, they both preserve in the mind the perceptions brought into it by the senses, which would be transitory and evanescent, if it were not for the aid of these two faculties. But they differ in the following particulars.

called *memory*. And thus sensation, memory, and imagination, together with certain natural appetites and desires, complete the

1mo, Memory, as Aristotle has observed, always refers to what the mind formerly perceived or knew; whereas the imagination only presents the object to the mind, but without any reference to the past, except it be accompanied with memory, which it is not always; for imagination so far resembles sense more than memory, that it represents the object as present, and affects the mind nearly in the same way as if it were present; and from thence is called, by some ancient philosophers, a *weaker sensation*.

2do, The imagination preserves in the mind the perceptions of sense only; whereas the memory retains not only these, but also ideas, and theorems, or propositions.

3tio, The image of the object preserved in the memory is not near so lively and strong, as that which is presented to the mind by the imagination: For we often remember things in general only; or, if we remember also the particular circumstances, they do not affect us near so much as the original perception of them by the senses; whereas imagination paints them, as I have said, and exhibits them to the mind with all the colourings, and all the peculiarities with which they appear to the senses, and with very near as much emotion as they at first produced. The consequence of this is, that having seen any object of the agreeable or disagreeable kind, if I have a good memory only, I can give a particular description of it, which will be very well understood, but such as will not much affect the hearer: But if I have the eye and imagination of a painter or a poet, I can describe the object in so lively a manner, that it will produce in the hearer very nearly the same emotions that it produced in me when I first saw it.

animal. Then he acquires the *comparative* faculty, called by the antient philosophers, the *rational* or *logical* faculty; by

4^{to}. This lively painting of the imagination, and the emotions which it produces in the mind, of joy, grief, terror, or whatever other passion was excited by the object itself, have a very great effect upon the happiness or misery of our lives; so that the man possessed of such an imagination, must necessarily be more happy or more miserable than other men.

5^{to}. The imagination has not only the power of retention, as well as memory, but it has a *creative* power, which is peculiar to it, and distinguishes it essentially both from sense and memory: For sense is only conversant with the present, memory with the past; whereas imagination, by the means of this faculty, is conversant with the future as well as the past, and paints to itself scenes that never did exist, and it is likely never will; for it may be said to create even the materials of those scenes, being such as are not directly and immediately furnished by the sense, but are formed upon the model of objects that have been presented by the sense, and are, as it were, imitations of them.

This is that great work of imagination, which is the foundation of all the *fine arts*, and stamps men truly *poets*, or *makers*. By this faculty we are enabled to exhibit scenes both of natural and human things, which, though they are far beyond real life and nature, are nevertheless *natural*; because they are imitated from things that have really existed. I say, *imitated*; for if they are servilely copied, it is not poetry or painting, but history or portrait drawing. And it is for this reason that those *fine arts* are very properly called *arts of imitation*.

As the imagination is often joined with memory, as we have already observed; so it is very frequently accompanied with *opinion*, particularly with respect to those

which he compares the perceptions of sense; being all the materials with which his mind is yet stocked. But this faculty he has in pictures of futurity which the imagination presents to the mind; for we often believe that the things are really to happen. And this has likewise a great effect with respect to the happiness or misery of life: For, if the events which we suppose are to happen, are of the joyful and prosperous kind, we have all the pleasures of hope, which makes a man of a warm lively imagination happier while it lasts, than the actual enjoyment would do. But what he hopes for may never happen; and then he suffers the pain of disappointment; which, in some cases, is so insufferable, that men rather chuse to go out of life than endure it: Or he may obtain the object of his hopes and wishes; but it may not, and in fact it very seldom does, answer his expectations; and then there is another disappointment often more cruel than the first.—If, on the other hand, the events I believe will happen are of the unprosperous kind, the fear of them must make me very unhappy; and if they are strongly painted on my imagination, and appear unavoidable, they make me as unhappy, perhaps more unhappy, than if they were actually present, and, by anticipation, reduce me to that state of mind which is well known by the name of *despair*. If such belief is taken up rashly, and without sufficient grounds, it is the effect of a melancholy and gloomy turn of mind; which sometimes makes men miserable in the greatest seeming prosperity.

Further, we may suppose the picture of those fairy scenes by the imagination so very lively, that, instead of believing the things *will happen*, we think they *have already happened*. Thus a man believes himself to be a king, or to be possessed of great wealth and power, who perhaps is a beggar; and he acts accordingly. This

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common with several other animals; so that he is yet only a more perfect *animal*, but not *man*, except in *capacity*. Next, he proceeds to acquire *intellect*; the first exertion of which is the forming some *general notions*. Of these he frames what we call *opinion*: And in this stage of his progression he is very properly called by a Greek author an *opinion-making animal* *. Then, and not till then, he is *actually* a *man*. The last step, and which completes the process, is the forming *perfect ideas*, by which he becomes a man of *intellect* and *science*. And thus, out of *sense*, me-

state of the imagination is what we call *madness*. But if the person does not go so far as to fancy himself actually possessed of those things he desires, but only believes, upon very slight grounds, or no grounds at all, that he is to be possessed of them, such a man, in common language, is called a *fool*. So that, according to this account, madnes is a disease of the imagination; folly an error of the judgement.

To conclude this note, which has drawn out to too great a length, it thus appears that the mind operates in two very different ways upon the materials which sense brings into it. For, either it abstracts from them ideas, which serve for the materials of science, when thoroughly purged and refined from matter; or it forms representations and pictures of them, which, properly chosen, and well painted, make the subjects of the most delightful arts among men.

* Ζωον ἰδεοποιήσιμον. *Polyb. lib. 6.*

memory, imagination, reason, and opinion, is produced that best faculty of the human mind, and which, therefore, in the common course of nature, ought to come last, I mean *intellect*, of which the *discursus* is what we call *science*. And thus *man* is completed, and brought to the perfection of his nature.

This is *the scale of being*, rising by proper gradations from mere *matter* and *sense* to *intellect*, through the medium of *memory, imagination, and opinion*. Some animals appear to have only *sense*, such as muscles, and other shell-fish. There are others that never attain even to *sense* in any degree of perfection, but fill up the interval betwixt the *vegetable* and *animal*, participating something of the nature of each, from which they have the name of *Zoöphytes*. Other animals, besides *sense*, have *memory* and *imagination*; and some perhaps only *one* of these two; but man, being *a little world*, as the antients called him, has in his frame a portion of every thing to be found in *nature*. He has in his body all the elements of which the *inanimate* world is composed; he has the growth and nutrition of the *vegetable*; and he has *sense, memory, and imagination*, belonging to the *animal* life; and, last of all, he acquires

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reason and intellect. Thus is man formed, not however at once, but by degrees, and in succession: For he appears at first to be little more than a mere vegetable, hardly deserving the name of a *Zoöphyte*; then he gets sense, but sense only, so that he is yet little better than a muscle; then he becomes an animal of a more complete kind; then a rational creature; and finally a man of intellect and science, which is the summit and completion of our nature.

From this point of view let us try if we can discern the difference betwixt us and higher intelligencies. *We* begin with *matter* and *material objects*, and through *particulars* and *individuals* investigate *generals*. *They* (so far as we can conceive of their operations) proceed in a method directly opposite to this: For, beginning with *generals*, they through them recognise *particulars*. In this way we too proceed, after we have attained to intellect and science; but with this difference, that those more perfect minds see the particulars in the generals *intuitively*; whereas we, for the greater part, are obliged to *investigate* them, and find them out by *circuit* and *collection*. If it were otherwise, and that in the *universals*

we could see at once the several *subordinate specieses*, and their several properties, connections, and dependencies, we should then indeed be *divine* intelligences, and be ranked with beings of superior order. But, if we cannot be *gods*, let us continue *men*, and not be degraded to *brutes*, by being stripped of that prerogative which chiefly distinguishes us from them, I mean *intellect*.

C H A P. XV.

That Articulation is not natural to Man.

WE are now to descend from those high speculations concerning ideas which constitute the *form* of language, to sounds which are the *matter* of it. And though I may have failed in my endeavours to convince the reader, that the operation of abstracting the perceptions of sense, and forming of them generals and universals, (for as to ideas of reflection I think there can be

no doubt), is not performed by any natural instinct, but has arisen, like the arts that are founded upon it, from experience and observation, and by use has been formed into habit; I cannot doubt but that I shall convince every one who will think it worth his while to read what follows, that articulation is altogether the work of art, at least of a habit acquired by custom and exercise, and that we are truly by nature the *mutum pecus* that Horace makes us to be. This I think I am able to prove, both from theory and facts: I will begin with the facts, which will serve to explain my theory.

It is a clear case, that we do not speak in that state which, of all others, best deserves the appellation of *natural*, I mean when we are born, nor for a considerable time after; and even then we learn but slowly, and with a great deal of labour and difficulty. About the same time also we begin to form ideas. But the same answer, I know, is made to serve for both; namely, That our minds, as well as our bodily organs, are then weak, and therefore are unable to perform several of their natural functions; but, as soon as they become strong and confirmed by age, then we both think and speak. That this is not

true with respect to *thinking*, I have already endeavoured to show; and, as to *speaking*, I say, in the first place, that of all those savages which have been caught in different parts of Europe *, not one had the use of speech, though they had all the

* See an account of them in Rousseau's treatise: *sur l'inégalité des hommes*, note 3. and in Linnaeus's *Systema naturae*. The first of these savages was caught near Hesse-Cassel in 1344, and was taught to speak. Another was found in the forests of Lithuania in the year 1694. He too was mute when he was found; and, whether he ever learned to speak, does not appear. In 1719, two savages were found in the Pyrenaean mountains; and the Hanoverian savage was caught and brought to England in the reign of George I. All these, when they were first caught, were not only mute, that is, had no articulation, but appeared to be truly quadrupeds; and the first mentioned, our author says, was taught with much difficulty to walk upright. When we join to this a fact which Mons. Rousseau likewise avers, that the children of the Hottentots and Caribbees walk so long upon their hands, that they are with much difficulty taught to walk upright, it would seem that we must add to man's other acquired habits his quality of *biped*, which has been generally thought an essential part of his original nature, and accordingly is made part of some definitions of him. But Aristotle knew better; for all that he has said is, that by nature man is *more a biped* than any other animal,—*μαλίστα γὰρ καὶ αὐτὸν ἀπὸ δίπυς*. *De animalium incessu*, cap. 5. The meaning of which I take to be, that he has by nature a greater aptitude to acquire the habit of walking *on two* than any other animal. And Mons. Rousseau's arguments in support of his natural erectness appear to me to prove no more.

organs of pronunciation such as we have them, and the understanding of a man, at least as much as was possible, when it is considered, that their minds were not cultivated by any kind of conversation or intercourse with their own species; nor had they come so far, according to my hypothesis, as to form ideas, or think at all. One of these was caught in the woods of Hanover as late as the reign of George I. and, for any thing I know, is yet alive; at least I am sure he was so some years ago. He was a man in mind as well as body, as I have been informed by a person who lived for a considerable time in the neighbourhood of a farmer's house where he was kept, and had an opportunity of seeing him almost every day, not an idiot, as he has been represented by some who cannot make allowance for the difference that education makes upon mens minds; yet he was not only mute when first caught, but he never learned to speak, though at the time the gentleman, from whom I have my information, saw him, he had been above thirty years in England.

Further, not only solitary savages, but a whole nation, if I may call them so, have been found without the use of speech. This

is the case of the Orang Outangs that are found in the kingdom of Angolia in Africa, and in several parts of Asia. They are exactly of the human form; walking erect, not upon all-four, like the savages that have been found in Europe; they use sticks for weapons; they live in society; they make huts of branches of trees, and they carry off negroe girls, of whom they make slaves, and use them both for work and pleasure. These facts are related of them by Mons. Buffon in his natural history. And I was further told, by a gentleman who had been in Angolia, that there were some of them seven feet high, and that the negroes were extremely afraid of them; for, when they did any mischief to the Orang Outangs, they were sure to be heartily cudgelled when they were caught. But though, from the particulars above mentioned, it appears certain, that they are of our species, and though they have made some progress in the arts of life, they have not advanced so far as to invent a language; and accordingly none of them that have been brought to Europe could speak, and, what seems strange, never learned to speak. I myself saw at Paris one of them, whose skin was stuffed, standing upon a shelf in the

King's cabinet of natural curiosities. He had exactly the shape and features of a man; and particularly, I was informed, that he had organs of pronunciation as perfect as we have. He lived several years at Versailles, and died by drinking spirits. He had as much of the understanding of a man as could be expected from his education, and performed many little offices to the lady with whom he lived; but never learned to speak. I was well informed too, of one of them belonging to a French gentleman in India, who used to go to market for him, but was likewise mute*.

Further, to shew the difficulty of pronunciation, the fact is most certain, that those who have been accustomed to speak all their lives, cannot, without the greatest labour and

* *Mons. Rousseau*, in his work above quoted, *note 10.* has collected the several accounts given of this animal by travellers, and seems to agree with me in opinion that he belongs to our species, rejecting with great contempt the notion of those who think that speech is natural to man. Now, if we get over that prejudice, and do not insist, that other arts of life, which the Orang Outangs want, are likewise natural to man, it is impossible we can refuse them the appellation of *men*. See what I have further said upon the subject of the Orang Outang, ch. 4. book 2.

pains, learn to pronounce sounds that they have not been accustomed to. Thus a Frenchman that has not been taught English early in his youth, can hardly ever learn to pronounce the aspirated *t*, that is, the *th*; and an Englishman cannot pronounce the aspirated *K*, or *x* of the Greeks, which we in Scotland pronounce with the greatest ease. And the Baron Hontan, who travelled so much in North America, tells us, that he spent four days to no purpose in trying to teach a Huron to pronounce the labial consonants *b*, *p*, and *m*, which we reckon so easy, and which are among the first consonants that our children pronounce; the reason of which was, that the Hurons have no such consonants in their language.

But what puts the matter out of all doubt, in my apprehension, is the case of deaf persons among us. And their case deserves to be the more attentively considered, that they are nearly in the condition in which we suppose men to have been in the natural state. For, like them, they have the organs of pronunciation; and, like them too, they have inarticulate cries, by which they express their wants and desires. They have likewise, by constant intercourse with men who

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have the use of reason, and who converse with them in their way, acquired the habit of forming ideas; which we must also suppose the savage to have acquired, tho' with infinitely more labour, before he could have a language to express them. They want therefore nothing in order to speak, but instruction or example, which the savages who invented the first languages likewise wanted. In this situation, do they invent a language when they come to perfect age, as it is supposed we all should do, if we had not learnt one in our infancy? or do they ever come to speak during their whole lives? The fact most certainly is, that they never do; but continue to communicate their thoughts by looks and gestures, which we call *signs*, unless they be taught to articulate by an art lately invented.

The inventor of this wonderful art, which, I think, does honour to modern times, was Dr John Wallis, one of the first members of the Royal Society, and a most ingenious, as well as learned man. He has written an excellent English grammar, which was reprinted in 1765, and subjoined to it is a letter of the author to one Beverly, wherein he gives an account of this art which he

had invented, and mentions two persons upon whom he had practised, it with success. I knew two professors of the art in Paris, one of them *Mons. l'Abbé de l'Epée*, with whom I was several times, and whose civility, and the trouble he took to shew me his method of teaching, I take this opportunity of acknowledging. He had brought some of his scholars a surprising length; and one of them I particularly remember, a girl, who spoke so pleasantly, that I should not have known her to be deaf.—There is at present in Edinburgh a professor of the same art, Mr Braidwood, whom I know, and who has likewise been at the trouble of shewing me his method of teaching; of which I very much approve. He has taught many with great success; and there is one of his scholars particularly who is at present carrying on the business of a painter in London, and who both speaks and writes good English.* But it is surprising what labour it costs him to teach, and his scholars to learn: Which puts it out of all doubt, that articulation is not only an art, but an art of most difficult acquisition, otherwise than by imitation, and constant practice, from our earliest years. For, in the first place, it is difficult to teach such

* His name is Mr Shirreff. I mentioned him before upon another occasion.

scholars to make any sound at all. They at first only breathe strongly, till they are taught to make that concussion and tremulous motion of the windpipe which produces audible sounds. These are very harsh, low, and guttural, at first, and more like croaking than a clear vocal sound; which I think will account for what *Monsf. de la Condamine* tells us of the strange method of speaking of a people he found upon the banks of the river Amazons; for the sound of their language was so low, and so much inward, more resembling muttering than speaking, that he imagined they spoke by drawing in their breath: And a girl whom I myself saw in France, that had been caught wild in the woods of Champagne *, when

* There was an account of this strange phaenomenon published in France by a lady, under the title, *Histoire d'une Fille Sauvage*, and revised by *Monsf. de la Condamine*. It was translated into English, and published in Edinburgh, in 1767, with a preface, shewing it to be very probable that she came from a country upon the coast of Hudson's bay, where she was taken, and carried to one of the French islands in the West Indies; from whence she was again embarked, and the ship was wrecked somewhere on the coast of France or Flanders; and it appears, that only she and a negro girl escaped by swimming. At the time I saw her, she had been thirty years

she shewed me how the language of her country was spoken, made a low muttering sound in her throat, in which I could hardly distinguish any articulation. After this difficulty, which is not small, is got over, then comes the chief labour, to teach them the pronunciation of the several letters; in doing which, the teacher is obliged, not only himself to use many distortions and grimaces, in order to shew his scholars the positions and actions of the several organs, but likewise to employ his hands to place and move their organs properly; while the scholars themselves labour so much, and bestow such pains and attention, that I am really surpris'd, that, with all the desire they have to learn, which is very great, they should be able to support the drudgery. And I am assured by Mr Braidwood, that, if he did not take different methods with them, according to their different capacities, and the difference of their organs, it would be impossible to teach many of them. And this very well accounts for what seems so strange at first, that those Orang Outangs that have been

in France, but remembered many particulars concerning her own country.

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brought from Africa or Asia, and many of those solitary savages that have been caught in Europe, never learned to speak, tho' they had the organs of pronunciation as perfect as we: For, as it is well known, savages are very indolent, at least with respect to any exercise of the mind, and are hardly excited to action by any curiosity, or desire of learning.

If, therefore, this art be so difficult to be learned without imitation, even by the assistance of the most diligent instruction, how much more difficult must the invention of it have been; that is, the acquiring of it without either instruction or example?

Having thus proved the fact, as I think, incontestably, it will not be difficult to assign the reasons, and explain the theory. For we need only consider with a little attention the mechanism of speech, and we shall soon find, that there is required for speaking certain positions and motions of the organs of the mouth, such as, the tongue, the teeth, lips, and palate, that cannot be from nature, but must be the effect of art: For their action, when they are employed in the enunciation of speech, is so different

from their natural and quiescent situation, that nothing but long use and exercise could have taught us to employ them in that way. To explain this more particularly, I think is not necessary for my present purpose. I shall have occasion to say more of it afterwards; but who would desire in the meantime to be better informed about it, may consult Dionysius the Halicarnassian, in his treatise of Composition, where he has most accurately explained the different operations of the organs in the pronunciation of the different letters. And whoever would desire to be still better informed, let him attend Mr Braidwood when he teaches, who, from his practice in that way, has learned to know more of the mechanism of language than any grammarian or philosopher.

I shall only say further on this subject, that pronunciation is one of those arts of which the instruments are the members of the human body; like dancing, and another art more akin to this, I mean singing; And, like those arts, it is learned, either by mere imitation, man being, as Aristotle has told us, the most imitative of all animals; or by teaching, as in the case of deaf men; but

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joined with very constant and assiduous practice; that being absolutely necessary for the acquiring of any art, in which-ever of the two ways it be learned.

And here we may observe, that it is a very false conclusion, to infer, from the facility of doing any thing, that it is a natural operation. For what is it that we do more easily and readily than speaking? and yet we see it is an art that is not to be taught without the greatest labour and difficulty, both on the part of the master and the scholar; nor to be learned by imitation, without continual practice, from our infancy upwards. For it is not to be learned, like other arts, such as dancing and singing, by practising an hour or two a-day, for a few years, or perhaps only some months; but constant and uninterrupted practice is required for many years, and for every hour, I may say, every minute of the day. And, even after it is learned with so much trouble and pains, it may, like other acquired habits, be lost by disuse: Of which I mentioned a remarkable instance before, in a boy, who did not lose his hearing till he was after eight years old, and had learned, not only to speak.

perfectly, but to read; and yet, when he came to be taught by Mr Braidwood, which was at the age of five and twenty, he had absolutely lost the use of speech, and had it to learn as much as any of his scholars. So that we need not doubt of what we are told of Alexander Selkirk, who was but three years in the desert island of Juan Fernandez; and yet, during that short time, he had lost the use of speech so much as to be hardly intelligible to those who found him there. Those therefore who, from the facility of a performance, conclude, that it is not a work of art, but of nature, do not sufficiently consider how much of artificial habit there is in our natures, in the state we are in at present, and that in this chiefly we differ from other animals, that the most of them, I mean such as are wild, are altogether creatures of nature, and even such of them as we have tamed, and assimilated in some degree to ourselves, have still much more of nature in them than of art; whereas a civilized man is so much more a creature of art than of nature, that his natural habits are almost lost in his artificial.

I will make another observation before I conclude this article. If it had not been for

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this new-invented art of teaching deaf persons to speak, hardly any body would have believed that the material or mechanical part of language was learned with so much difficulty. But, if we could get an Orang Outang, or a mute savage, such as he above mentioned, who was caught in the woods of Hanover, and would take the same pains to teach him to think that Mr Braidwood takes to teach his scholars to speak, we should soon be convinced, that the formal part of language was as difficult to be learned as the material. For my own part, I am fully persuaded, that the minds of men laboured as much at first, when they formed abstract ideas, as their organs of pronunciation did when they formed articulate sounds; and, till the mind be stored with ideas, it is a perfect void, and in a kind of lethargy, out of which it is roused, only by external objects of sense, or calls of appetite from within. It was this want of ideas which made the Hanoverian savage pass, in the opinion of many, for an idiot; and it accounts for that brutish insensibility in a nation of which Diodorus Siculus, in his third book *, has

* *Cap. 18. edit. Wesseling.*

given us an account. They were situated upon the coast of the Indian ocean, near to the straits which join that ocean to the Arabian gulf. Ptolomy king of Egypt, the third of that name, having heard, he says, much of their brutishness and stupidity, had the curiosity to send one of his friends to bring him an account of them; who accordingly went, properly attended, and brought back to the king a report, which in substance amounted to this: That they neither desired the company of strangers, nor shunned it: That no appearance, however strange, seemed to move them; for they kept their eyes always fixt, and never altered their countenance: That, when any person advanced upon them with a drawn sword, they did not run away; and they bore all kinds of insults and injuries without shewing the least sign of anger. Nor did those of them who were spectators of such injuries shew any indignation at what they saw their countrymen suffer. He adds, That they carried their insensibility so far, that, when their wives and children were killed in their presence, they were even then unmoved, shewing no signs, either of pity or anger. In short, says he, in the most terrible situations, they seemed perfect-

ly tranquil, looking stedfastly at what was doing, and, at every event that happened, giving a nod with their heads. Thus far Diodorus; and with this account many of the relations of our modern travellers, concerning people living in the lowest state of barbarity, agree. And I know a gentleman who saw in Batavia two savages brought from New Holland, that appeared to him to be perfectly stupid and idiotical, though he had no reason to think that they were more so than the other natives of that country.

7

C H A P. XVI.

*That Language is not natural to Man,
proved also from Arguments a posteriori.*

THUS I have endeavoured to demonstrate, from the nature of language, consisting of ideas and the articulate sounds by which they are expressed, that language is not from nature, but acquired habit. This kind of

demonstration is said to be *a priori*, being from principles and the nature of the thing; and though, in many cases, it may be long and tedious, it is accounted the best; because it not only proves that a thing *is*, but shews us *why* it is. But, as some of my friends, for whose judgement I have great deference, still retain some doubts in this matter, I will endeavour to satisfy them by another kind of demonstration, which is said to be *a posteriori*; because it is not from principles, but from the consequences which would follow, if the contrary hypothesis were true. This method of demonstration, is well known to mathematicians; and is said by them to be *ex absurdo*.

Let us suppose, then, that man, when he comes to the age of maturity, speaks naturally; the consequence, I think, will be, that this language, thus naturally spoken, must be as naturally understood: For it is impossible to conceive, that nature should have given to man a method of communication which, not being understood, could be of no use. And, accordingly, we find, that those signs of communication, which are acknowledged to be natural, such as looks, gestures, and inarticulate cries, are readily understood by all the animals of the same species. Now,

that there is any such universal language existing in the world at present, or that it ever did exist, is a fact that certainly cannot be proved: And yet it must appear very extraordinary, that this natural language should never have been found, not even among the most barbarous nations; but that all the people of the earth should have agreed to exchange it for an artificial language, which none can understand who has not learned it. But, further, I say, that it is impossible to conceive any such language: For I desire any person to try, whether he can form a notion of any number of articulate sounds expressing ideas, which will be immediately understood by every body as soon as uttered; and they must not only be understood single, but in combination, so as to form discourse; otherwise they would not serve the purpose of language.

But, further still, I ask, whether there be only one universal language of this kind, or more? If there be by nature but one which all men speak when they come to the age of maturity; then I ask of what kind is it? Nor should it be difficult to answer this question. For, having no variety, but being every where the same, and proceeding immediately and

directly from nature, it should be easy, one would imagine, to explain of what kind the sounds are which must necessarily form this one language naturally spoken and naturally understood. Yet this is what no body hitherto has attempted to do, so far as I know; and, if it shall be attempted, I will venture to prophesy that it will be without success. On the other hand, if we suppose that there is more than one natural language, a supposition which is much more probable, as it is hardly possible to conceive, that different herds of savages, in different parts of the earth, should all speak the same language, or, if it could be conceived, it is contradicted by the fact; since it is well known how different the languages of barbarous nations, even inhabiting the same country, are from one another; then I ask how many there are of those natural languages? To this question the only answer that can be given, I imagine, is, that they are as many, as there are tribes or herds of savages, who have happened to associate together, that is, almost infinite; and yet this so great number of different languages are all to be understood by every one, as naturally as they are spoken; a thing which appears to me

altogether absurd; it is, however, the necessary consequence of the hypothesis, that language is natural to man.

I have heard it observed, that children, who are much together, make a kind of language for themselves, which they understand; but which grown persons, not accustomed to their prattle, do not understand. But this language can be no other than an imperfect imitation of the articulate sounds which they have heard; from which we cannot, I think, with any degree of probability, infer that they would have invented articulation, tho' they had never heard it. In the same manner, we see them following analogy in the tenses of verbs; for they say *drawed*, instead of *drawn*, *thinked*, instead of *thought*. But can we from thence infer, that they could have invented this way of expressing the different times of verbs, by varying the word, or its termination, in a certain manner?

Again, if language be natural to man, the consequence is, that nature has bestowed upon him what is not necessary, either for the preservation of the individual, or the continuation of the species; for there are countries of the earth where men may sub-

first upon the natural fruits of the earth, and multiply, to a certain degree, without any art at all; and, in such countries, it is highly probable that the human race first began. Or, if arts of subsistence were necessary, as they certainly are in some countries, it shall be proved, in the sequel, that these might be carried on without the use of language. Now, there is no other instance can be given of nature having bestowed, upon any animal, more than is necessary for the preservation of the individual, or the propagation of the kind. And, if we are to suppose that nature, in her bounty to our species, has gone beyond necessity, we cannot stop; but must farther suppose, that she has bestowed upon us all the arts which minister to our convenience, utility, or even pleasure; in short, all the arts of life.

And thus, whether we consider the matter in its principles, or in its consequences, it seems to be demonstrated, that language does not proceed from nature, but from acquired habit.

B O O K II.

I N T R O D U C T I O N.

IN the preceeding book, I have endeavoured to prove, by various arguments, that language is not natural to man. If this be true, one of two things must necessarily follow; either, that language is the fruit of human art and industry; or, that it must have been revealed from heaven.

Another thing also appears to be evident from what has been said, That, if language was invented, it was of very difficult invention: For if, even after it is discovered, it be *learned*, as we have seen, with so much pains and labour, it must have been *invented* with infinitely more. And indeed the difficulty of the invention appears so very great, that it seems hard to account how it ever happened; and it is the more so, that it must have been among the first arts invented. For one art discovered, naturally leads to another; but the beginning in all things is exceeding difficult: And what

makes the difficulty the greater is, that, as Aristotle has observed, all our learning at first is from imitation *. Children among us do certainly learn in that way; and what is commonly said I believe to be true, that men learned at first to build from the swallow, or any other bird that makes such an artificial nest; from the spider to weave; and from the birds to sing. This last I have a particular reason for believing to be true; because the wild girl above mentioned, whom I saw in France, told me, that the only music of the people of her country was the imitation of the singing of birds; and she affirmed, that she herself could once have imitated the notes of any bird. But this faculty, as well as many others which she possessed in the wild state, she had lost; for it was then, when I saw her, above thirty years after she was caught. In short, it appears to me, that we resemble very much an American or West-India bird that I have heard of, called the *Mock-bird*, which has no tune of its own, but imitates the notes of any other birds. For we seem to set out in life without any original stock of our own, or any natural

* *Poetic. cap. 4.*

talent besides that faculty of imitation, which nature has bestowed upon us in so high a degree, that Aristotle has denominated man, very properly, the most imitative of all animals. Now while man was learning other arts by imitating the instinct of the brute creation, by what imitation could he learn to speak?

These, and many other considerations that might be mentioned, have induced some learned men whom I have known, to believe, upon philosophical as well as religious principles, that it exceeded the power of man to invent so wonderful an art; and that therefore it was the gift of God, or of some superior nature*. This is an opinion that I am far from rejecting as absurd, or improbable; nor would I have it believed that I pay no regard to the account given in our sacred books of the origin of our species: But it does not belong to me, as a philosopher or gra-

* This appears to have been an opinion as old as the days of *Plato*, who, in his dialogue upon language, I mean the *Cratylus*, p. 291. edit. *Ficini*; tells us, that some, in order to solve the difficulty about the first names or radical words of language, did, as the tragic poets do when they cannot otherwise unravel their fables, bring down a god, as in a machine, to cut the knot.

marian, to inquire whether such account is to be understood allegorically, according to the opinions of some divines *; or literally,

* See upon this subject *Burnet's Archaeologiae philosophicae lib. 2. cap. 7.* and the authorities by him there quoted; from which it appears, that it was not only the opinion of the Jews, but of the Christians of the first centuries, that the circumstances related by Moses concerning the origin of man are to be considered as allegorical or parabolical, like the parables in the New Testament, and as many other passages in the Old must be understood. See also two very elegant epistles of the same author, annexed to his *Archaeology*.

As to the Jewish doctors, the single authority of Josephus is worth that of them all. For, besides his Greek learning, he appears to have been exceedingly learned in the religion and antiquities of his country, having studied diligently, as he tells us himself, the doctrines of the two most famous sects among the Jews, the Pharisees and the Essenians. And, in order to prosecute his studies with more leisure, he retired to a desert, where he spent three years with a very learned hermit; *Josephi vita ab ipso conscripta, in initio*.

From the commentary he makes upon Moses's account of the primitive state of man, it is clear he thought it an allegory. He introduces it with these words: *Και δε και φυσιολογειν Μωυσης μετὰ τὴν ἐξομὴν ἠγάγετο περὶ τῆς τοῦ ἀβραάμου κατὰσκεινῆς, λέγων οὕτως, &c. Antiq. lib. 1. cap. 2.* Now, *φυσιολογειν* is a word that cannot be applied to a plain narrative of an historical fact; but must mean, that Moses, by the story he tells, intended to represent the natural state of man. And from what he makes God Almighty say to Adam after his fall, it is plain that he understood the garden of Eden to be a type of that primitive state of men, when they lived upon the natural fruits of the

and as an historical fact; an inquiry, besides, which I am very ill qualified for, not understanding the original language of those books. But supposing that we are to under-

earth, without toil or labour, and with perfect innocence and simplicity of manners. As I cannot judge of the case of Moses, otherwise than by authority, I must be forgiven to think that this so learned Jew understood the books of Moses as well at least as any modern divine. But, even among these, authorities are not wanting in support of this opinion. And I will give one among them too, which I think may stand in place of many. It is that of a divine, still living, of the greatest learning, and a most able critic, both of sacred and profane writings. By this description the reader will easily guess that I mean Dr Warburton, the author of the *Divine Legation of Moses*, the most learned work which this age has produced. He has said, that the story of the fall, as stated by Moses, is "a real fact told allegorically." *Div. Leg. book 4. § 4. vol. 3. p. 105.* in a note. Supported by such authorities, I think I may venture to go so far as to say, that it would not be for the credit of religion to understand literally all the circumstances of that relation, such as the conversations betwixt God and man, the woman and the serpent. For, if we are to understand these literally, we must understand in the same manner those recorded in the beginning of the book of Job, which by many divines is supposed to be written by Moses. Such literal interpretations of scripture have been made a topic of ridicule by some libertine writers, of which tho' I by no means approve, it is better to avoid giving them a handle by interpreting improperly the figurative and allegorical manner in which those ancient

stand the story in the literal sense, and thus so understood, it necessarily implies, (for it is not expressed), that the gift of speech was once bestowed by God upon man, it may afterwards have been lost, as certainly many other gifts, bestowed upon the first pair were lost, after the fall, and not transmitted to their degenerate posterity. Or, should we suppose it continued to the race, as well as other arts which the first pair possessed such as that of tilling the ground, which was their occupation in Paradise; yet both this art of language, and those other arts may some time or other have been lost, by such calamities as have befallen the human race, in many parts of this earth, by fire or water, plague or famine; inasmuch that they have been either totally destroyed, or very

oriental writers relate facts. It is from the conversations, recorded in the beginning of Genesis, and from these only, that we can infer that language was revealed to the first pair. Now, those who are conversant in the oriental writings, and even in the most ancient Greek authors, know well, that the dialogue introduced into those writings, is only a way of telling a story—and most pleasant way it is, as, besides the facts, it gives us characters, and manners, and joins to the truth of history the pleasure of poetical imitation. This is what makes Herodotus the most pleasant historian that ever wrote.

small remains left, and these scattered and dispersed: So that all arts, and even language itself, which cannot be preserved without social intercourse, were in process of time lost among them *. In this solitary state we may suppose them to have been for some time, till the males and females, by natural instinct, going together, the race would increase, and at last become numerous enough to herd and associate together. Or, without having recourse to such extraordinary accidents as the destruction of whole nations by fire or inundation, we may suppose that those savages above mentioned, which have been found in different parts of Europe, had come together, (and two of them were actually found together in the Pyrenæan mountains), and had multiplied. In such cases we have no warrant to believe, that another miracle would be wrought, and that

* See *Plato's Timæus*, in the beginning, where the conversation is related betwixt *Solon* and the *Ægyptian priest*, in which, among many calamities that have befallen this earth, at different times, by fire and water chiefly, but likewise from many other causes, he mentions particularly the destruction of the Atlantic island, by the subsiding of the earth, and the inundation of the sea, in the same way that a part of the city of Lisbon was lately destroyed.

language would be again revealed; and therefore we are at liberty to suppose it possible, and I say no more, that, in process of time, they might have invented a language. It will be the subject of this book to shew, how this might have happened, by what steps and degrees, and of what nature the first invented languages probably were,

C H A P. I.

Of the Connection betwixt Society and Language.—An Inquiry into the Origin of Society necessary.

THE difficulty of the invention of language must appear so very great to the philosophical reader, that he will not be surpris'd that I have spent so much time, and must still spend more, upon the preliminaries of it. I said, in the beginning of the work, that it was an inquiry that would lead me back to the very origin of the human race; and it has so happened. For I could not give the philosophical account I propos'd, of the origin of language, without inquiring into the origin of our ideas. This made

it necessary for me to define and divide them, to explain the nature of the two several kinds of them, and to shew how they were formed, without supposing them to be the work of nature. I have thought it proper also, in this disquisition, to state the several opinions of philosophers concerning ideas, and to refute, as well as I was able, the opinion of those who maintain, that we have no *ideas*, but only *perceptions of sense*.

Tantae molis erat HUMANAM condere gentem *.

But with all this labour we have only made of man a *rational* animal; it remains still to make him a *speaking* animal. For this purpose I hold *society* to be absolutely necessary: For, though a solitary savage might in process of time acquire the habit of forming ideas, it is impossible to suppose, that he would invent a method of communicating them, for which he had no occasion. Our subject, therefore, further leads us to inquire into the origin of society; which appears to Mons. Rousseau † to have so necessary a connection with language, that he

* *Tantae molis erat Romanam condere gentem.*

VIRG. ÆN. i.

† See his treatise on the inequality of mankind.

proposes it as a question to be resolved by the learned, *Which was most necessary, language for the institution of society, or society for the invention of language?* This question I hope I shall be able to solve, by shewing, that society must have been first in the order of things; and that, though it was impossible that language could have been invented without society, yet society, and even *political* society, may have subsisted, perhaps for ages, before language was invented.

This is an extensive subject of inquiry, and belongs to a greater work, which I have long meditated, but probably shall not live to execute, I mean, *The History of Man*. But, as my present subject requires that I should say something of it, I will endeavour, in as few words as possible, to explain my notions concerning the beginning of society.

And the first question to be considered upon this subject, as well as with respect to language, is, Whether it had a beginning at all? that is, Whether it be from nature, or of human institution? for there are many who believe that we are naturally a *political*, as well as a *speaking* animal: And indeed there is such a connection betwixt the two, that, if it could be shewn that we

are by nature *political*, I should think it not improbable that we derived from the same source the gift of speech.

C H A P. II.

Division of Animals into Solitary and Gregarious, Political and not Political.—Man to be ranked in neither of those Divisions, but in the Middle of each of them.—Other Animals of the same amphibious Kind.

ALL animals, says Aristotle, are *gregarious, solitary, or betwixt the two*; that is, participating of the nature of both, and able to live, either in solitude, or in company, as occasion requires. Again, of the gregarious kind, some are *political*; that is, carry on together one common work; others have no such bond of union, and live together without any joint stock, or common good of any kind *. The que-

* The passage is in the first chapter of the first book of *Aristotle's History of Animals*. The words are, *Τὰ μὲν*

sion, is what place we are to assign to man in these two divisions? And with respect to the first division, Aristotle has decided, that he is by nature neither

για σόλον (ζων) εστιν αἰλιασ τα δι μοιαιια, και πιζα, και πηια, και πλωια τα δι ιαμαφαιιριζα. Και τωι αγλιασι και τωι μοιαιιασ τα μιν πολιια, τα δι σποραδια ιασι. Αγλιασ μιν εσι, οιοι εν τοις πηιοις το τωι περιστριω γινος, και γερατος, και κοπος γαμφουιυχνη δι ουδιη αἰλιασ και τωι πλωιασ πολλα γινη τωι ιχθυωι, οιοι οὗς καλουσι δραμαδας, θωνιοι, πηλαριδης, αμιασ ο δι ανθρωπος ιαμαφαιιριζα. Πολιιασ δι ιασι, οὗ εν τι και κοιοι γωλιασ πωιωι το ιργον επε ου παλια κοιοι τα αἰλιασ. Εστι δι τοιωιωι, ανθρωπος, μολιτω, ζωη, μυρμαξ, γερατος.

Upon this passage there are several observations to be made. In the *first* place, I hold, that an error has crept either into the MS. or the printed editions, where it is said, that τωι αγλιασι και τωι μοιαιιασ τα μιν πολιια, &c. For it is impossible to conceive that any of the solitary animals, that is, such as by nature live in solitude, and in solitude only, should be political. It is therefore plain, that the division only relates to the gregarious: So that the text should run thus, τωι δι αἰλιασ τα μιν εστι πολιια, τα δι σποραδια, where we may observe the great propriety of the word σποραδια, which denotes, *scattered like seed that is sown upon the ground*; and therefore very fitly expresses the condition of those animals living together in flocks or herds, but having no common bond of union,

2dly, In this passage Aristotle calls man a *political animal*, and classes him with the bee and ant; from which it may be inferred that Aristotle understood man to be by nature political, not by institution only. But with

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gregarious nor solitary, but participates of both: And, I think, rightly. For man is allowed by all physiologists to be of more various mixture and composition

respect to his applying to him the word *πολιτικος*, it is to be observed that those adjectives in *-ικος*, whether derived from verbs or nouns, signify the *capacity* of doing, without distinction whether the thing to which they are applied have the actual possession of the capacity, or the power only of acquiring it. Thus it may be said of man, at the time of his birth, that he is *ζωον διαπρατικον*, as well as when he is grown up, and in possession of the faculty. And in the Peripatetic definition of *man*, he is said to be *ζωον λογικον*; by which is certainly not meant, that he is rational at the time of his birth, but only has the capacity of becoming so: And Aristotle himself, in his *Categorics*, has used the words *δεραμικος* and *πυκτικος* to denote him that has no more than a *natural aptitude* for excelling in those exercises, without having acquired the *habit*. See *Ammonius in Categor. p. 135*. It is true, the Greek language is very rich in words, and is plainly the work, not of grammarians only, but of philosophers; yet it has not made all those accurate distinctions and divisions of things which philosophy makes: And accordingly, though it has distinguished betwixt *energy* and *power*; yet it has not distinguished betwixt that kind of power which I call *capability*, and *actual capacity*, or *faculty*; so that Aristotle, as we have seen, was obliged to use the same word (*δυναμικος*) to express both, though he very accurately made the distinction. I hold, therefore, that *ζωον πολιτικον* in this passage denotes only an animal *capable of being political*. And as to his classing man with ants and bees, it must be allowed to be somewhat

a land-animal, and he is a water-animal; and, among other varieties, he is social, and he is not social. In short, he appears to be placed on the confines betwixt different kinds of beings; and as the *Zoöphyte* is in the middle betwixt the vegetable and animal, so *man* appears to occupy the space betwixt the several classes of animals.

But in what sense does man participate both of the gregarious and solitary kind? Aristotle has not explained this: But it is obvious, that, in one sense at least, he is akin to both; for, as he can live in society, so he can live without it. For not only savages can procure for themselves the means of subsistence in a solitary life, but even men that had been brought up in societies, such as those of Europe, and consequently were in that state of indigence and dependence which is necessarily produced by such an education, have been able, when forced to it, to live by themselves. But further, as by no ne-

man *Georgius Trapezuntius*, I have forgot, which, tho' having got a purse of gold from one of the popes, which he thought too small a reward for the trouble it had cost him to translate some Greek autho'r, threw it into the river Tiber, with this saying, *Periere labores; pereat et eorum ingrata merces.* Vid, *Bruckeri Hist. Philofophi.*

cessity of his nature he is obliged to live in society, so neither do I think, that by any propensity of his nature he is determined to live in that way more than in the solitary life. And in that respect too, I think he is in the middle betwixt the two kinds, and differs from other animals, such as horses, oxen, sheep, and deer, which, though they can subsist without one another's assistance, yet have a strong inclination to the fellowship of their own species.

When I say so, I would not have it understood, that I believe, as Mr Hobbes does, that man is naturally the enemy of man; and that the state of *nature* is a state of *war* of every man against every man*. This is such a state as neither does exist, nor ever did exist, in any species of animals: And, however ingenious Mr Hobbes may have been, (and he certainly was a very acute man, and much more learned than those who now-a-days set up for masters in philosophy), it is plain to me, that he did not know what man was by nature, divested of all the habits and opinions that he acquires in civil life; but supposed, that, previous to the in-

* Hobbes's *Leviathan*, cap. 13.

stitution of society, he had all the desires and passions that he now has. But my opinion is, that man participates so much of the gregarious animal as to have no aversion to the society of his fellow-creatures, far less to be the natural enemy of his own species, as certain specieses are of others; and that he also has so much of the nature of the solitary wild beast, that he has no natural propensity to enter into society, but was urged to it by motives to be afterwards explained. What, among other things, induces me to think that he is of this mixt kind, is the formation of his teeth and intestines. He has teeth for tearing, and others for grinding; whereas the solitary beast of prey has only teeth for tearing; and the frugivorous animals (so I call those who feed only on grain or herbage) have only grinders, such as the ox and sheep; or, if they have teeth which serve sometimes for tearing, such as those of the horse, they are not near so much incisive as those of man, which, by one nation that has been discovered upon the coast of New Guinea, are used as an offensive weapon; for, we are told, they bite those they attack, like dogs*. As to the inte-

* This is related by *Le Merc.* See the passage quoted below, when I speak of barbarous nations.

lines, the animals of prey have short guts, the frugivorous have them long; but man has them of a middle length betwixt the two. And, in conformity to this structure of his body, it is well known that man can live, either upon the fruits of the earth, or upon the flesh of other animals. His nails, too, seem to place him in a middle state betwixt those two kinds of animals. The frugivorous have no nails at all; the carnivorous have crooked nails or talons; and all such animals Aristotle, in the passage above-quoted, says are solitary. But man's nails are straight; and therefore, though not so fit for piercing, or holding, as those of the beasts of prey, they are proper enough for tearing. Accordingly Sir Francis Drake tells us, that he found a people in the south sea, who had the nails of their fingers about an inch long, which served them for offensive arms*.

But, though I think that man has from nature the capacity of living, either by prey, or upon the fruits of the earth; it appears to me, that by nature, and in his original state, he is a frugivorous animal, and that he only be-

* The particular passage is quoted afterwards.

furd to suppose, that, when they demonstrate those operations which vulgar men perform without knowing the reason of them; or, when they treat of the higher parts of this science, such as the doctrine of ratios and proportions, they ever think of any particular beings, to which the numbers are to be applied?

But, further, take a man who has learned neither geometry nor arithmetic, nor any science whatever, and ask him, Whether he cannot observe, speak, and reason about the length of the room where he sits, without taking into his consideration its breadth or height, or what the finishing is, whether wainscot or plaister? whether he cannot observe the size or figure of any animal or vegetable, without considering its other qualities?

Further, there are words in every language of art, called by grammarians *abstract nouns*, which denote qualities abstracted from the substances in which they are by nature necessarily inherent; this therefore may be said to be a *violent* abstraction; yet I ask any common man, when he uses the terms *blackness*, *whiteness*, *hardness*, or *softness*, &c.

fieur Bougainville relates, (and I have heard the like from others), that, when he landed in the Malouine, or *Falkland Islands*, as we call them, which are uninhabited, all the animals came about him and his men; the fowls perching upon their heads and shoulders, and the four-footed animals running among their feet. Now, if man had been naturally an animal of prey, their instinct would have directed them to avoid him, as experience directs the wild animals of this country to do. But, though he be not, in this first stage of his nature, an animal of prey, yet I hold, that he has even then no natural propensity to society.

age, is no other than a representation, a little embellished and exaggerated after the manner of the poets, of the simple and natural way in which men lived in the first ages of the world, feeding upon herbs and fruits, which the earth produced spontaneously. This golden age may be said yet to exist in some of the countries that have been discovered in the South Sea, where the inhabitants live, without toil or labour, upon the bounty of nature in those fine climates. In some of those countries there was nothing else that the inhabitants could subsist upon; particularly, in the *Ladrone islands*, when they were first discovered by the Spaniards, there was neither hog nor dog, which are animals commonly found in the islands of the South Sea, nor any other terrestrial animal, of any considerable size, besides man.

I know that this opinion of mine is very different from the common opinion, and that it is generally believed, that men are by nature as much or more united to their kind, than any other species of animal. But let those who believe so, consider one thing belonging to our species, and which seems to be a peculiarity that distinguishes us from every other land-animal, and sets us at a greater distance from our kind, than even the beasts of prey are from theirs; what I mean is, the practice of men feeding upon one another. Those who judge of mankind only by what they see of the modern nations of Europe, are not, I know, disposed to believe this; but they may as well not believe, that there are men who live without cloaths or houses, without corn, wine, or beer, and without planting or sowing: And if there were any doubt before, it is now entirely removed, by the late discoveries that have been made in the South Sea *. And I am persuaded, that most nati-

* I mean, those made by Mr Banks and Dr Solander, in their late voyage to the South Sea; where they found, in the country called *New Zealand*, a people who fed on human flesh; but were, in other respects, far from being a

ons, at some time or another, have been cannibals; and that men, as soon as they became animals of prey, which, as I have said, they were not originally, fed upon those of their

barbarous or inhuman people, but, on the contrary, brave and generous. *Gabriel Sagard*, an author that I shall have occasion to mention frequently in the sequel, who was missionary among the *Hurons*, a people of North America, in 1630, informs us, that it was then an established practice among that people to feast upon their prisoners of war: And I myself know a French Jesuit, one *Mons. Roubaud*, who was missionary among a tribe of Indians in North America, called the *Albinaquois*, and who told me he saw eight and twenty British men eaten at a breakfast by a tribe of Indians, who had come to the assistance of the French in the late war, from a remote part of that country towards the west, where they still preserved the custom of eating men, which appears to have been once universal among the nations of that continent. The British had been taken prisoners by this tribe; and, though the French general, *Mons. Moncalme*, was at great pains to save them, and offered the Indians double the number of beeves in the place of them, he could not accomplish it; for the Indians said, they were not such fools as to prefer the flesh of oxen to that of Englishmen. I am well informed, too, that there is a nation in the inland parts of Africa, where human flesh is exposed to sale in the market, as beef and mutton is among us. *Garcilasso de la Vega*, (an author of whom I shall give a particular account afterwards), in his history of Peru, says the same thing of a certain nation in South America, upon the

own kind, as well as upon other animals. So that it appears to me evident, that man has not that natural abhorrence to the flesh of man, that lions and tigers, and other beasts of prey, have to that of their own species; who, so far as I can learn, never feed upon one another, except when urged by the extremest hunger.

This therefore is another peculiarity of our species, which distinguishes us from both the carnivorous and frugivorous kinds of animals; and proves to me incontestibly, that what is said by philosophers of the at-

authority of a Spanish writer, one *Pedro de Cieca*, who affirms, that he saw there, with his own eyes, human flesh exposed to sale in the shambles; and that they ate their own children whom they begat upon their female captives; and, with respect to their male captives, they gave them women to breed out of, and they fattened and ate the offspring as we do calves and lambs; *book 1. chap. 5.* We need not therefore doubt of the truth of those stories told by Herodotus, and other antient authors, of Indian and Scythian nations that fed on men's flesh. We are not however to believe, that there ever was a nation that fed promiscuously upon one another; for the fact is, that all such nations eat only their enemies, or strangers, whom they treat as enemies, and such of their own people as die, or become useless through age or infirmities.

tachment we have to our common nature, and of those ties of love and sympathy which bind us so fast together, applies only to the rational, not to the natural animal; for, as Marcus Antoninus the Emperor has observed, we are social, because we are rational*.

Let us next consider how man stands with respect to the other division of animals, into *political* and *not political*: And I say, that he is likewise in the middle betwixt these two; for he is political, not by nature, but by institution, and acquired habit. And, indeed, if he be not by nature even a herding animal, it follows of consequence that he is not political: Nor can we suppose that any thing is *natural* to an animal that is not *necessary* for his subsistence, which certainly the political life is not to man; whereas, to the bee and ant, it is natural, because it is necessary; and, accordingly, those animals have never been found single or detached. With respect to man, it appears to me, that he has herded, and entered into the political life, for the same reasons, and at the same time; and therefore, I believe

* Εστι το λογικον, ενθους και πολιτικον. *Meditat. lib. 10.*

no men have been found herding together who did not likewise carry on some common work; which is the definition given by Aristotle of the political life, as was before observed.

But is man the only animal that is in this state, with respect to the social and political life? If it were so, it would be nothing extraordinary in so extraordinary an animal as man. But there are other animals of the same amphibious nature. And, *first*, there is the wild boar, which, while he is young, is a herding animal; but, when he grows old, he lives by himself, and becomes what the French call *un solitaire*. Then, with respect to the political state, the horse in this country is not a political animal, though social and gregarious: But, in the deserts of Tartary and Siberia, he is political; for, being there hunted by the Tartars, as hares and deer are in this country, they, for self-defence, form themselves into a kind of community, and take joint measures for saving themselves, which they commonly do by flight; and, that they may not be surprised by their enemy, they set watches, and have commanders, who direct and hasten their flight; some of whom have been

seen bringing up the rear, and biting and kicking the hindmost, in order to make them run faster.

But there is another animal that resembles us still more in this respect, and that is the beaver; of which I shall say a great deal more afterwards. But it is sufficient for my present purpose to observe, that he is precisely what I suppose man to be, amphibious betwixt the solitary and the social life: For, in certain countries, particularly in North America, and some of the northern countries of Europe, he is found living in what may be called *civil society*, without metaphor or exaggeration; whereas, in other countries, where they are not so numerous, or in those very countries when they happen to be dispersed, and their villages (for so I may call them) ruined by the men who hunt them, or, when they are prevented by men from associating, as they are in all the southern countries of Europe, they lead a solitary life, and hide themselves in holes, without any community or public good*.

Of the same amphibious kind is an animal well known in this country, viz. the

* *Buffon's Hist. Natur.* vol. 8. pag. 297.

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hare, which, being few in number in all the countries of Europe, and much persecuted by men, lead a solitary life, and never associate or form a public; but, in the plains of Tartary, they are gregarious. The fact we are assured of by the same author, who informs us of what is above related concerning the horse, viz. Mr Bell, who has published his travels through Tartary and Siberia, which he made with the Russian caravan that goes to China. Now, I cannot conceive that the hare, which by its nature appears to be solitary, should associate in Tartary for any other reason except sustenance and self-defence; which, as I shall shew afterwards, are the reasons that made men first herd together, and enter into the political life. What kind of *policy* the hares have, in their associated state, Mr Bell has not told us; but I am persuaded they have something of that kind; otherwise I do not think that they would have come together. For even those animals, such as the sheep, which are not political while they are fed and protected by us, become so when they live in a kind of natural state by themselves in the hills: And accordingly they are observed to set watches in the night-time against

their enemy the fox, who give notice of his approach; and, when he attacks them, they draw up in a body, and defend themselves. And, in general, as nature appears to me to have always some further intention than pleasure merely, and the gratification of appetite and inclination, I think it is probable that she has not given to any animal that desire for society, without intending that it should be useful for some political purpose, either of sustenance or defence: So that I doubt whether *gregarious* and *political* animals differ entirely in their natures, or only in the *more* or *less*; so that some by the necessities of their nature are more political, others less.

But that the fierce and ravenous animals, which subsist entirely by prey, are naturally solitary, and averse to all society, cannot be doubted, for this plain reason, that they can both subsist and defend themselves without it. For, though some wild beasts are much stronger than others, yet, as they do not prey upon one another, the weaker have no occasion to associate in order to protect themselves against the stronger. But, though they have no society on that account, they are by nature directed to associate with the

female at certain times, for the purpose of propagating the species; but this intercourse continues no longer than is necessary for that purpose. That time is longer or shorter according to the nature of the animal. Among the birds, it continues a considerable time, because both the parents must contribute to the support of the young; whereas, among certain beasts, it is over immediately after the act of coition, the care of the offspring being entirely left to the mother. Of what kind our commerce with the female is in the natural state, whether we be of those animals which Linnaeus calls *bigamous*; that is to say, which pair for the propagation of the species, and continue jointly their care of the offspring; or whether we are not in this respect rather to be classed with the ox, the sheep, the deer, and almost all the other beasts of the frugivorous kind, is a matter of curious inquiry, of which I shall say something afterwards.

I shall add only one observation more before I conclude this chapter: That though we should suppose that men herded together before they entered into civil society, yet I think it is impossible to believe, that,

while they only herded together, they ever could invent a language, which could only be the fruit of that strict intercourse produced by the political life. Our business therefore at present is, to inquire how the political life began.

C H A P. III.

Examples from ancient and modern History of Men living in the Brutish State, without Arts or Civility.

BUT, before I enter upon this inquiry, I think it proper to support the account I have given of the original state of human nature, both with respect to *rationality* and *society*, by facts as well as by arguments: For it is very different from the notions commonly received, and will no doubt appear incredible to those who have been taught, that man is by nature a rational, as well as a social and political animal, and have read large volumes on the subject of the *law of nature*, founded all upon the supposition that civil society, or the political

life, is the *original* and *natural* state of man. I have already given sundry examples of solitary savages who have been found at different times, in different parts of Europe, without language or arts of any kind, and even without the erect form; and I will now proceed to shew, from the history both of the antient and modern world, that there have been found whole nations, not indeed altogether without arts or civility, (for that is impossible, since, according to my hypothesis, they associated together only for the purpose of carrying on some joint work), but with so little of either, that we can be at no loss to suppose a prior state, in which there were none at all.

And I will begin with instances furnished me by an antient author, namely Diodorus Siculus, who was a traveller as well as an historian, and whose work, the greatest part of which is unhappily lost, was the fruit of the labour of thirty years, which he spent in collecting materials, and travelling into those countries that he had occasion to mention in his history *. I am the more inclined to lay weight upon

* *Diodor. Biblioth. lib. 1. in initio.*

the facts recorded by him, that his style is very plain and simple; so that he appears to me to have spent that time in preparing and digesting the *matter* of his history, which many historians, antient as well as modern, have spent in adorning their *style*. In the beginning of his history, he says, that men at first lived dispersed, and subsisted upon the natural productions of the earth; that they had no use of speech, and uttered only inarticulate cries; but that having herded together, for fear, as he says, of the wild beasts, they invented a language, and imposed names upon things*. This opinion of the original state of man he no doubt formed from the study of many antient books of history that are now lost. But, besides this, he relates particular facts concerning certain savage nations which lived, either in Africa, or upon the opposite coast of the Indian ocean, or that gulf of it which is now called the *Red Sea*. Of these he had an opportunity of being very well informed, by the curiosity of one of the Ptolemies, king of Egypt, who, as I mentioned before, sent men whom he could trust, on purpose

* *Lib. 1. cap. 8. edit. Wesseling.*

to be informed concerning such nations; and besides, the passion he had for hunting elephants led him to discover more of Africa than I believe has been discovered in modern times.

The first instance I shall mention from Diodorus is of a nation, if a herd of men may be called so, of *ἰχθυοφάγοι*, or *fish-eaters*, who lived near the strait which joins the Indian Ocean to the Red Sea or Arabian gulf, upon the Asiatic side. They went naked, and lived entirely by fishing, which they practised without any art, other than that of making dikes or mounds of stones, to prevent the fish which had come with the full tide into the hollows and gullies upon that coast, from going out again with the ebbing tide, and then catching them in those ponds as in a net*. In this way they employed themselves for four days, and the

* This is precisely the way of fishing practised by the inhabitants of New Holland, as described by Dampier in his Travels. This Dampier appears to me to be one of the most accurate and judicious of our modern travellers; so that, when we find him agreeing in his account of the customs of barbarous nations, with an antient historian, whom I am persuaded he never read, nor perhaps ever heard of, we can hardly doubt of the truth of the fact.

fifth day they all set out for the upland country, where there were certain springs of fresh water, of which they drank, after having filled their bellies with fish. This journey, says our author, they performed just like a herd of cattle, making a great noise, and uttering loud cries, but all inarticulate; and, after having filled their bellies with water, so that they could hardly walk, they returned to their habitations upon the coast, and there passed a whole day incapable to do any thing, lying upon the ground, and hardly able to breathe through fulness; after which they returned to their only occupation, of fishing in the manner above described: And this was the round of their life. The women and children were common, belonging to the herd. They had no sense of what is just, honest, or decent, living entirely under the guidance of instinct and appetite. They had no arts, unless we give that name to their way of fishing above mentioned, and a certain method which they had of curing and preserving their fish, very particularly described by Diodorus. They used no weapons except stones, and the sharp horns of goats, with which they killed the stronger fish.

They had no use of fire, but roasted their fish upon the rocks by the heat of the sun. Neither do they appear to me to have had the faculty of speech; for, though our author does not expressly say so, yet I think it is his meaning, from the account he gives of their journey to the springs; and it is clear that they had nothing like religion or government*.

The next nation he mentions is that of the *Insensibles* †, as he calls them, of whom I have already spoken. Of these he says expressly, that they had not the use of speech, but made signs, like our dumb people, with their heads and hands. They lived, he says, promiscuously with other animals, and particularly with seals, which, he says, catch the fish in the same manner that these men did, who were also of the race of fish-eaters; and he adds, that they lived with those other animals, and with one another, with great good faith, and in great peace and concord. The most extraordinary particular he tells concerning them is, that they never used water, nor any kind

* *Diod. lib. p. 106. Stephani.*

† *Ανισθητοι.*

of liquid, not having so much as an idea of that sort of nourishment *; though even this, I think, is less incredible than what more than one modern traveller has told us of people in the South Sea, that, when they had occasion to be long at sea, supplied the want of liquids by drinking sea-water.

The next nation mentioned by Diodorus, that I shall take notice of, is one upon the African side, in that part of Ethiopia which is above Egypt. They were of a quite different race, being what he calls *ὑλοφάγοι*, or *wood-eaters*; for they subsisted entirely upon the woods, eating either the fruits of the trees, or, when they could not get these, chewing the tender shoots, and young branches, as we see cattle do in this country. This way of living made them very nimble in climbing trees; and they leapt, says our author, with amazing agility, from one branch or one tree to another, using both feet and hands; and, when they happened to fall, their bodies were so light that they received no hurt †. They too went

* *Diod. lib. 3. p. 108.*

† The wild girl, whom I mentioned above, must have been of a race of people very like this mentioned by Diodorus: For she climbed trees like a squirrel, and leapt

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naked, had no arms but sticks, like the Orang Outangs, who are still to be found on the same continent, and their wives and children were in common. *Diod. p. 111.*

Diodorus concludes his account of those savage African nations, by telling us, that, in the southern part of that great peninsula, there are races of men, who, in the human form, live a life altogether brutal. *p. 115.*

Thus far Diodorus Siculus; from whose account it is evident, that there were in Africa, and the opposite continent of Asia, in his time, herds of people that lived without any civil society, even the domestic society

from one branch to another, upon all-four, with wonderful agility, as I was informed by the people of the village of *Songé* in *Champagne*, where she was caught: And she still retained, when I saw her, a mark of the use of her hands as feet in leaping; for her thumbs were of an unusual breadth. When she happened to fall, too, she was so light and nimble that she received very little hurt. For the Abbess of the convent of *Chalons*, (near to *Songé*), where she was confined for some time after she was taken, shewed me a very high window from which she leapt into the street, without receiving much harm; and what she did receive, she imputed to the gross aliment they had given her, which she said had made her so much heavier than when she lived upon wild food.

Q 2

of man and wife, which is the first step towards forming a state or political society.

With Diodorus, in this account of the savageness and barbarity of the people of Africa, agrees Herodotus; a man of the greatest curiosity and diligence, and whose authority may be depended upon, when he relates a thing simply as an historical fact, and not as a hearsay. He speaks of herds of people in this peninsula that coupled together promiscuously (*καταμειμιχία*) like cattle, *lib. 4. c. 180.*; and of men and women absolutely wild, *lib. 4. c. 191.*; and, particularly, of the Troglodytes he says, that they fed upon serpents and other reptiles, were hunted like wild beasts by the Garamantes, and by way of language made a kind of murmuring inarticulate sound, which he compares to the cry of a bat, *ibid. c. 183.* And it is not unlikely that it is the same kind of language that *Monf. de la Condamine* reports to have been spoken by a nation that he met with upon the banks of the river Amazons: For it was a muttering murmuring kind of noise, as he has described it, and which appeared to him to be formed by drawing in the breath; probably because it was a low and obscure sound, not unlike

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that which a man makes who is very hoarse by reason of a cold *.

As to modern authorities, I will begin with that of Leo Africanus, an African Moor of the sixteenth century, who, coming to Rome, did there abjure the Mahometan faith, and was baptized by the name of the pontiff who then filled the papal chair, Leo X. He had travelled much in the interior parts of Africa with caravans of merchants, and appears to me to have known more of that country than any modern. He wrote a description of it in Arabic, which is translated into Latin, and published in nine books, containing a very accurate account, both of the men and manners, and natural

* There is a race of men yet to be found in that part of antient Ethiopia that we call *Abyssinia*, whose language resembles still more that of the *Troglodytes*, as described by Herodotus; for it makes a hissing kind of noise, very fitly expressed by the Greek word *τρογλοδύτης*, (in Latin *strideo*), which Herodotus applies to the language of the *Troglodytes*, and which I suppose resembles the sound made by a bat. Of these people in Ethiopia, Linnaeus, as I was informed by one of his scholars, had an account from two travellers who had been in that country at different times; and both agreed in this, and several other particulars concerning those men. See *Linnaei Systema Naturae*, vol. 1.

p. 33.

Q 3

curiosities of the country: And he agrees with Diodorus as to the savageness of some of the people of Africa; and, particularly, he says, that, in the inward parts of the country, southward from Barbary, there are people that live a life entirely brutish, without government or policy, copulating promiscuously with their females, after the manner of the brutes*. And he mentions another nation, to whom he gives a name, calling them *Bornians*, who lived not far distant from the fountain of the river Niger. These people, says he, are without religion of any kind, and have their women and children in common †.

The next modern author I shall mention is likewise a very diligent and accurate writer. It is Garcilasso de la Vega, who has written in Spanish the history of the *Incas* of Peru, of whose race he himself was ‡. According to his account of that country, when the first Inca began his conquests, or rather

* *Lib. 7. in initio.*

† *Ibid. p. 656.*

‡ He was born, as he informs us, eight years after the Spanish conquest of Peru was completed. His mother was the grand-daughter, if I mistake not, of the *Inca* that preceded him who was dethroned and put to death by

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his taming or civilization of men, (for he was a conqueror of that kind, such as the Egyptians report their Osiris to have been); it was inhabited, for the greater part, by men living in a state altogether brutish, without government, civility, or arts of any kind; and such of them as were in any degree civilized, had a tradition preserved among them, that they had been taught, as the subjects of the Incas were, by men, who came from distant countries, and imported among them the arts of life. And, more

the Spaniards. He was brought up among his relations of the Inca race, till he was twenty years of age; and from his mother and her brothers, as he tells us, he received information of the facts which he relates in his history. He also employed his school-fellows the Indians, after he had formed the design of writing it, to get him information from all parts of the country. His history, therefore, I think, may be credited as much as any that is only from tradition; which, however, this history was not altogether; for they had a kind of records by threads and knots. And, indeed, the facts he relates, and his manner of relating them, bear intrinsic marks of truth, at least, that no falsehood or fiction was intended. And, with respect to the principal facts, we may believe a tradition that went no farther back than four hundred years; about which time the first *Inca*, *Manco Capac*, began his reign; especially when it was preserved in the family of that prince, and we may believe carefully preserved, and the more carefully that they had no written records.

Q 4

particularly, he relates, that, in some parts of Peru, which were afterwards civilized by the Incas, the people were under no kind of government, living together in herds or flocks, like so many cattle or sheep, and, like them, copulating promiscuously*. In other parts of the country, they did not so much as live in herds, but dwelt in caves, and holes of rocks and mountains, in small numbers of two or three together, feeding upon herbs, grass, roots, and wild fruits, and copulating promiscuously†. And, in later times, under the fourth or fifth Inca, he mentions a people in the great province of *Chiribwana*, who lived altogether like beasts, wandering in the mountains and woods, without religion or worship of any kind, and without any community or political government, unless when they associated to infect their neighbours, and make use of them for food; for the end of their wars was to eat their enemies. These people were so brutish, and the country of so difficult access, that the Inca gave over thoughts of conquering or civilizing them; and the Spaniards afterwards attempted it, but without success, *lib. 7. c. 17*. He mentions also another people of the same province, that lived near the Cape of *Passau*, who, never ha-

* *Lib. 1. c. 5 et 6.* † *Ibid. c. 7.*

ving been conquered, or rather civilized, by the Incas, lived, even at the time the author wrote, in a state of the utmost savageness and barbarity, having no religion at all, and worshipping nothing either above or below them; inhabiting caves, and hollows of trees, without communication, friendship, or commerce, and hardly having language sufficient to understand one another *. One of the Incas, he says, coming with an army to subdue them, but despairing of being able to reclaim them from their brutish life, said to his people, "Come, let us return again; for these deserve not the honour of our dominion." Upon which the whole army faced about, and returned home †. And these people were in that state of barbarity, or very little better, at the time the author wrote; for he says he himself saw some of them ‡. He further tells us, that one of the Incas found men that preyed on one another like wild beasts, attacking their fellow-creatures for no other purpose than to eat them. These the Inca hunted on the mountains, and in the woods, like so many wild beasts §.

* *Lib. 1. c. 4. et 5.*

† *Lib. 9. p. 8.*

‡ *Lib. 9. c. 8.*

§ *Lib. 8. c. 3.* See also *c. 6 & 7.* of the same book; where there are other accounts to the same purpose.

But the communication and intercourse that has been betwixt the several parts of the old world on this side of the globe, and likewise betwixt the old and the new world discovered by Columbus, during these last three hundred years, has made so great a change in the manners and way of living of men in those countries, that it is not there we are now to look for people living in the natural state, but in another part of the world, as yet very imperfectly discovered, and with which we have had hitherto very little intercourse, I mean the countries in the South sea, and such parts of the Atlantic ocean as have not been frequented by European ships. What I shall here set down of the wild people found in those countries is taken from a French collection of voyages to the South sea, printed at *Paris* in the year 1756, in two volumes 4to. The author's name, as I am informed, is *Labrosse*.

Americus Vespucius, who made the discovery of the continent of America for the King of Spain, and gave his name to it, was afterwards employed by the King of Portugal, in whose service he made a voyage in that great ocean which extends from

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Brazil eastward, towards the Cape of Good Hope ; and in this voyage he discovered a great tract of country, which he calls a continent, where he found a people who, tho' living together in herds, had neither government, religion, nor arts, nor any property; and every one of them had as many wives as he pleased. Americus was among them seven and twenty days, which was long enough to have observed what he affirms of their manner of living. *Vol. 1. p. 96. of Labrosse's Collection.*

Jack *the Hermit*, a Dutch traveller, affirms, that the people of Terra del Fuego live entirely like brutes, without religion, or policy, or any the least regard to decency, vol. 1. p. 445. And the same is said of them by an English traveller, Sir John Narburgh, vol. 2. p. 33. They are besides cannibals, and have not the least idea of honesty or good faith in their dealings, vol. 1. p. 445.

Another Dutch traveller, one *Roggeveen*, came to an island in the South sea, where he could not find out that the people had any kind of government ; but some way or other they had got a religion, in which they were very zealous, and trusted to it for

their defence, in place of arms, against the Europeans, vol. 2. p. 235.

Many people in those countries have been found without almost any of the arts of life, even the art of defending themselves, or attacking their enemies; for but few of them have been found that have the use of the bow and arrow. Most of them, like the Orang Outangs, use nothing but sticks and stones; and the last mentioned people, who had so much religion, used no arms at all. Sir Francis Drake discovered certain islands in the South Sea, to the north of the line, where he found inhabitants who had the nails of their fingers about an inch long, which he understood served them for offensive arms, vol. 1. p. 197. And Le Mere met with a people in New Guinea, who used their teeth as an offensive weapon, and bit like dogs, vol. 2. p. 396. and 397. Among such a people, if there was any government or civil society, it must have been very imperfect, and of late institution.

This is all, so far as I have observed, that has hitherto been discovered in the South Sea concerning the natural state of men there. But we have reason to expect from those countries, in a short time, much greater

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and more certain discoveries, such as I hope will improve and enlarge the knowledge of our own species as much as the natural history of other animals, and of plants and minerals.

From the South Sea I will come back again to Africa, a country of very great extent, in which, if it were well searched, and the interior parts of it discovered, I am persuaded that all the several steps of the human progression might be traced, and perhaps all the varieties of the species discovered. I have already stated what I have learned both from antient and modern authors, concerning barbarous nations inhabiting that country, and I will now communicate to the public a piece of intelligence from thence relating to our subject, which I received, since publishing the first edition of this volume, from a man whose veracity and exactness is well known to all those who are acquainted with him. And indeed, the simple, plain, and accurate manner in which he tells his story, is sufficient to convince every one who hears him of the truth of it. His name is Peter Greenhill, doctor of physic, residing at present in the north of Scotland. He was sixteen years employed in the African trade, du-

ring ten of which he resided constantly in the country, and learned the language of one of the nations on that coast. He says, he was well informed of a nation inhabiting to the eastward of Cape Palmas, whose language was so rude and imperfect, that they were obliged to supply the defects of it by signs and gestures; and therefore could not understand one another in the dark. He further says, that he knew one Gregory, a captain of a ship, who was in use to trade for slaves in the river Gaboon, opposite to the Island of St Thomas, where the Portuguese have a settlement: That he saw this Captain Gregory at Fort Cape Coast, upon his return from a voyage to this river, when he told him, and several other gentlemen, that there was a savage people inhabiting the inland country, above the mouth of the river Gaboon, who did not live in society, had no use of language, and were hunted like wild beasts, by the more civilized nations in their neighbourhood, taken and sold for slaves to the Europeans: That he and the rest of the company laughed at this story as altogether incredible: Upon which the captain said, that he had two of them then on board his ship, whom he would shew to them: That he

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had got them from the natives at the mouth of the river ; but, as he was well acquainted with them, and had gained their love by making them presents, they did not impose upon him, as they frequently did upon other Europeans, by felling them as slaves, but gave them in a present, telling him that they did not believe they were men but monkies, because they could not speak. The next day after this conversation, the Doctor saw them. They were two girls about the age of eleven or twelve, of the human form in every respect, with the features, complexion, and woolly hair of the natives of the country, and the look and behaviour of human creatures : That they got slaves of different nations to speak to them ; but they understood nothing of what they said, nor did they speak to one another while the Doctor saw them ; and the captain told him, that all the while they were on board his ship, which was three weeks, they did not, even in their intercourse with one another, utter one articulate sound, as far as he heard or could learn : That they are well known to the Portuguese, and called by them *Bouraas*, that is, beasts of burden : That, some days thereafter, Cap-

tain Gregory sold them, with other slaves, to the captain of a Dutch vessel. The Doctor added, that, for his part, after seeing them; he had not the least doubt of their being men, and he says the captain was of the same opinion; for he said, that, being asked by one of the natives at the mouth of the river Gaboon, whether he believed them to be men? he told them, he thought they were men as much as either of them was.

From the account given by this gentleman, we may see the progress of language among savages. First, we have a number of wild men not associated, or at least not living in so close an intercourse of society as is necessary for the invention of language, and therefore without the use of speech. And we may observe how surprisingly this story told by Dr Greenhill agrees with the account above mentioned given by Herodotus, of the Troglodytes, inhabiting the same country of Africa, who were likewise hunted by the neighbouring nations like so many beasts, and, instead of speaking, made a noise like that of a bat. Nor is it to be wondered, that the negroes at the mouth of the river Gaboon, and the Doctor himself and his companions, at first believed them

to be monkeys, not men, because they did not speak, proceeding upon the vulgar error, that language is natural to man; and that therefore whatever animal does not speak, is not a man. But, among other things belonging to the men of that country, it is to be observed that they had woolly hair, which none of the monkey race, as far as I can learn, have. Next, we have a people that had learned a little articulation, but not so much as to communicate their thoughts to one another, without the help of the natural language of signs. The next step is to what may be called a language, very rude and imperfect indeed, but such as is sufficient for communication, with little or no help from action or gesture: Of this kind is the language of the Hurons in North America, and other barbarous languages, of which I shall speak in the sequel. And, last of all, comes the language of art, which is the subject of the second volume of this work.

Before I conclude this article of travels, I will quote one traveller more, very little known, but who reports an extraordinary fact concerning our species, which I will relate as a matter of curiosity, though it be-

long not to my subject, except in as far as it tends to give us more enlarged views of human nature, without which I am sensible that what I have said, and shall further say, of the natural state of man, will appear whimsical and ridiculous. The name of this traveller is *Keoping*, a Swede by birth, who, in the year 1647, went to the East Indies, and there served on board a Dutch ship of force, belonging to the Dutch East-India company, in quality of Lieutenant. In sailing through those seas they had occasion to come upon the coast of an island in the gulf of Bengal, one of the Nicobar islands*, where they saw men with tails like those of cats, and which they moved in the same manner. They came in canoes along-side of the ship, with an intention to trade with the Dutch, and to give them parrots in exchange for iron, which they wanted very much. Several of them came aboard the ship, and many more would have come;

* It is to be observed, that there are several islands of this name lying in a string at the north end of Sumatra. We are not, therefore, to imagine, that our Swedish traveller is convicted of a lie by other travellers, who have touched at some one of these islands, and have not found men with tails.

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but the Dutch were afraid of being overpowered by their numbers; and therefore they fired their great guns, and frightened them away. The next day they sent ashore a boat with five men; but they not having returned the following night, the day after the Captain sent a larger boat ashore with more hands, and two pieces of cannon. When they landed, the men with the tails came about them in great numbers: by firing their cannon they chased them away; but found only the bones of their companions, who had been devoured by the savages; and the boat in which they had landed they found taken to pieces, and the iron of it carried away.

The author who relates this is, as I am well informed, an author of very good credit*. He writes in a simple plain manner, not like a man who intended to impose a

* The story is told in the 6th volume of Linnaeus's *Amoenitates academicae*, in an academical oration of one *Hoppius*, a scholar, as I suppose, of Linnaeus, who relates the story upon the credit of this Keeping, with several other circumstances besides those I have mentioned. As I knew nothing then of any other author who had spoken of men with tails, I thought the fact extraordinary, and was not disposed to believe it, without knowing who this

lie upon the world, merely for the silly pleasure of making people stare; and if it be a lie, (for it cannot be a mistake,) it is the only lie in his book; for every thing

Keoping was, and what credit he deserved. I therefore wrote to Linnaeus, inquiring about him, and desiring to know where his book was to be found. He returned me a very polite answer, informing me, that the book was lately reprinted at Stockholm, 1743, *apud Salvium*; that the author was, “natione Suecus, secutus naves Belgi-
“cas per plures annos, imprimis ad insulas Indiae Ori-
“entalis. Incepit iter 1647. Erat Lieutenant navalis rei.
“Habet multa de animalibus et plantis sparsa, simplici
“stylo; sed omnia reliqua quae retulit de his, simplici-
“tate et fide summa recenset; quorum omnia reliqua
“hodie notissima et confirmata.”

Upon this information I got the book from Stockholm. It is in the Swedish language, which I do not understand; but that passage of it having been translated to me by a Swedish gentleman, I found it to agree exactly with the story told by Hoppius. And the gentleman, who was very well acquainted with the book, confirmed what Linnaeus says, of its being written in a plain and simple style, bearing intrinsic marks of truth.

As this is a matter of great curiosity, I will subjoin what Linnaeus further says in his letter to me.

“2. *Bontius*, longius post eum, (Keoping,) vidit ipse ho-
“mines caudatos et nocturnos.

“3. *Gesnerus* et *Aldrovandus* habent ex antiquis similem
“figuram caudati.

“4. Opus istud Chinesse, lingua et stylo Chinesse, cum
“figuris, 30 vol. 8vo, quod possideo et fidei fideliter
“multas et plantas et animalia, idem depingit.

else that he has related of animals and vegetables has been found to be true. I am sensible, however, that those who believe that men are, and always have been, the same in all ages and nations of the world, and such as we see them in Europe, will think this story quite incredible; but for my own part I am convinced, that we have not yet discovered all the variety of nature, not even in our own species; and the most incredible thing, in my apprehension, that could be told, supposing there were no

“ 5. *Rumphius* habuit per plures annos vivum hominem nocturnum, quem aluit. Auctor fidiſſimus vocat eum *Caculack*.

“ 6. *Brad*, mercator vivus, qui diu, per ſeptennium, vixit in Malacca, ſiquis alius, vir gravis, candidus, et ſincerus, vidit hominem nocturnum, et deſcripſit in familiarum colloquio; omnia, quae ego novi antea, ita ſincere, ut de ejus fide dubitare nequeam, mihi retulit.

“ Et nocturnus et caudatus recti incedunt; caudatus non loquitur.

“ *Dalin* fuit informator Principis noſtri haereditarii, vir infinita eruditione et ſapientia. Hic edidit orationem quam habuit coram Soc. Reg. Acad. Scient. in qua de his agit.

“ *Montpertuis*, epiſtola Gallica, Berolini, ad Regem Borussiae, de his multum agit.

“ Unius oculati teſtimonium, quod vidit, pluris mihi eſt, quam centum negantium ideo quod non viderunt.”

facts to contradict it, would be, that all the men in the different parts of the earth were the same in size, figure, shape, and colour. I am therefore disposed to believe, upon credible evidence, that there are still greater varieties in our species than what is mentioned by this traveller: For, that there are men with tails, such as the antients gave to their satyrs, is a fact so well attested that I think it cannot be doubted *. But our Swe-

* See *Linnaei Systema Naturae*, vol. 1. pag. 33. and *Buffon's Natural History*. Those who have not studied the variety of nature in animals, and particularly in man, the most various of all animals, will think this story, of men with tails, very ridiculous; and will laugh at the credulity of the author for seeming to believe such stories: But the philosopher, who is more disposed to inquire, than to laugh and deride, will not reject it, at once, as a thing incredible, that there should be such a variety in our species, as well as in the simian tribe, which is so near of kin to us.—That there have been individuals in Europe, with tails, is, I think, a fact incontestible. Mr Maillet, the author of the description of Egypt, a man of great curiosity and observation, affirms, in a work that he calls *Telliamed*, that he himself saw several men of that kind, whom he names, and of whom he gives a particular account. And I could produce legal evidence, by witnesses yet living, of a man in Inverness, one *Barber*, a teacher of mathematics, who had a tail, about half a foot long; which he carefully concealed during his life; but was discovered after his death, which happened about twenty

dish traveller, so far as I know, is the only one who speaks of tails of such length as those of the inhabitants of Nicobar.

years ago. Nor will any man, who knows the structure of the human body, and the nature of a tail, which is nothing else but an elongation of the rump-bone, be surpris'd that this should sometimes happen. Verheyen, a learned anatomist, in the account he gives of the *os coccygis*, or rump-bone, says, That 'os coccygis referre quasi parvam caudam; quae tamen naturaliter non apparet extrinsecus, sicut in pecudibus et aliis quibusdam brutis. Reserunt equidem Diemerbroeck et Harvey, se vidisse homines, qui hoc loco caudam gerebant exterius eminentem, ad pedis longitudinem, quibus indubie os coccygis fuit compositum ex ossiculis multis.' When we look to Diemerbroeck, we find a very particular account of a fact of this kind, in his anatomy, *lib. de ossibus, p. 929. edit. Ultrajecti 1672. et 584. edit. Lugdun. 1683.*—'Hoc coccygis os,' says he, 'si extrorsum incurvatum in longitudine excrescat, fit cauda, qualem, anno 1638, in infante recens nato, ad semi-ulnae longitudinem, vidimus, omnino similem caudae cercopithecii, seu simiae caudatae; a qua bestia mater, secundo tertiove ingravidationis mense, ut ipsa met nobis narravit, exterrita fuerat. Cum talibus villosis caudis homines, in quibusdam Indiae locis, communiter nasci, testis est Plinius, Nat. hist. lib. 7. cap. 2. Etiam Paulus Venetus, lib. 3. Itinerar. cap. 18. scribit, in regno Lambri, homines sylvestres in sylvis inveniri, qui caudas habent, ut canes, longitudinis unius palmi. Horum testimonia plurimum confirmat Harvaeus, de gener. animal. exercit. 4. hac historia: Chirurgus quidam, vir probus, mihi que familiaris, ex India Orientali redux, bona fide mihi narravit, in insula Borneae, lo-

That these animals were men, as they trafficked, and used the art of navigation, I think cannot be denied. It appears, that

‘cis a mari remotioribus et montosis, nasci hodie genus
 ‘quoddam hominum caudatum, (uti olim alibi accidisse
 ‘apud Pausaniam legimus;) e quibus aegre captam vir-
 ‘ginem (sunt enim sylvicolae) ipse vidit, cum cauda car-
 ‘nosa, crassa, spithamae longitudine, inter clunes reflexa,
 ‘qua anum et pudenda operiebat. Usque adeo velari ea
 ‘loca voluit natura.’

The only question, therefore, that can be in this matter is, Whether this surgeon, mentioned by Diemenbroeck, can be credited, who says, that he saw, in the island of Borneo, one of a race of men, (*genus hominum*;) with tails; or whether it be only a variety of the individual, and what we would call a monstrosity, not a variety belonging to the species, and such as goes to the race. And if it had been found in only one or two individuals, it might have been accounted of the last kind. But, as it has been found in so many different parts of the world, I think it is at least probable (if there were nothing more in the case) that it is a specific variation, and that there is a race or nation of men with tails. For as this variety has been found in women as well as men, if two of this kind should go together, I think it can hardly be doubted that the children would likewise have tails. The like happens in the case of men with six fingers, some of whose children have commonly that peculiarity, even when they match with women who have the ordinary number of fingers. (See the observations that Maupertuis has made upon this subject, in his Letters.) And if two *sexdigitaires*, as Maupertuis calls them, should go together, I think it cannot be doubted that the whole race would have that variety. If in this manner tails should be continued in the race, then there would be families, and at last nations of tailed men. And so

they herded together, and lived in some kind of society; but whether they had the use of language or not, does not appear it would be what I call a *variety of the species*, not of the individual only. And that it truly is so, I think is a fact sufficiently attested. One of those tailed men mentioned by Mr Maillet, was a black, whom he saw at Tripoly, and who informed him that he was from the island of Borneo in the East Indies, where he said the most of the men and women had tails. And with this account agrees, not only what the surgeon, mentioned by Diemerbroeck, says, but also what Bontius, a learned physician of Batavia, relates, in his *Natural History, lib. 5. cap. 32.* of a kingdom in that island, where many of his countrymen had seen, at the court of the king, men with tails. His words are: "Porro, in insula Borneo, in regno Succodana dicto, a nostris mercatoribus propter oryzam et adamantes frequentata, homines montani caudati in interioribus regni inventuntur; quos multi e nostris in aula regis Succodanae viderunt. Cauda autem illis est prominentia quaedam ossis coccygis, ad quatuor aut paulo amplius digitos excrescens; eodem modo quo truncata cauda, (quos nos *spligiones* vocamus,) sed depilis." Gemelli Carreri, in his *Travels*, relates, that, in Manilla, and the other Philippine Islands, there are negroes to be seen with tails from four to five inches long, *tom. 5. pag. 68. Paris edit. 1719.* Buffon, *hist. natur. tom. 3. pag. 401.* And the same author says, that he was told by certain Jesuits, men whom, he could believe, that there was in the island of Mindora, near to Manilla, a race of men called *Manghiens*, who had all tails, from four to five inches long; and that some of these men had been converted to the catholic faith. *Ibid. tom. 5. pag. 92.* Buffon, *ubi supra.* And John Struys, in his *Travels*, relates, that he himself saw, in the island of Formosa, a man with a tail, more than a foot long, all covered with red hair, and

from our author's relation: And I should incline to think that they had not, and that in this respect they resembled the Orang very like the tail of an ox; and that this man told him, that all those in the southern part of this island had tails of the same kind. *Struy's Travels, tom. 1. pag. 101.* printed at Rouen 1719.—*Buffon, ubi supra, pag. 403.*

That the reader may have in one view every thing that I know upon this subject, I will mention some Hetrufcan vases, in which men are represented with long tails, like those of the inhabitants of Nicobar. See the collection of the Count de Caylus, *tom. 2. plate 23. and 29.* Those vases are of very high antiquity, many of them older, it is believed, than the foundation of Rome. And, I think it is probable that the men with tails painted upon them were not creatures of the imagination, (for from whence should such a fancy have come?) but creatures that then really existed, as much as the animals that we see represented in Egyptian sculpture, such as the *cynocephali*, or dog-headed men or monkees, (call them how you please,) resembling the Egyptian god called by Virgil *latrator Anubis*, and such as the *Sphinxes*, I mean the Egyptian Sphinxes, not the winged Sphinx of the Grecian poets. See what Dr Tyson has collected upon this subject, in his appendix to the dissection of the Orang Outang, *pag. 38. and 56.* If more antient authorities, upon this subject, are wanted, we have that of Ptolomy, in his geography, who speaks of the inhabitants of certain islands in his time, who had tails. And if we will connect antient authorities with modern, we have that of Marco Paolo, the Venetian, who travelled in the East, in the twelfth century; and relates, that, in the kingdom of Lambry, there are men inhabiting the mountains, who have tails as long as a palm. See *Buffon, ibid. pag. 403.* and the passage from Diemerbroek, above quoted.

Outangs, though in other respects they appear to have been farther advanced in the arts of life; for I do not think that any traveller

All these authorities notwithstanding, Mr Buffon seems not to believe that there are any men with tails existing. We cannot, he says, believe entirely what Struys has said. He has exaggerated: He has copied Marco Paolo, and Gemelli Carreri, and Ptolomy, *ibid.* p. 403. Mr Buffon, however, appears to believe in another variety of our species, much more extraordinary, and such as, I believe, is not to be found in any other species of animal; I mean, that of men with one leg very much bigger than the other, which, he says, is to be found in a nation somewhere in India; *ibid.* pag. 414; and this not the effect of disease, but a peculiarity which they have from their birth.

Notwithstanding, therefore, the authority of Mr Buffon on the other side, these facts, attested by so many different authors, antient and modern, fully convince me of the existence of men with tails. If, however, the reader should still have any doubt, he must, I think, at least, allow the matter to be problematical; and, like every other variety of our species, well deserving to be inquired into, unless, perhaps, he be of the number of those philosophers who set bounds to Omnipotence, and pronounce decisively, that man with such variations cannot exist. This dogmatical spirit has gone so far in the age in which we live, that many will not believe that there is in our species the common variation of great and small, from the size of ten or eleven feet, to that of two or three. As to the first, Mr Hawkworth, in the introduction to the late Collection of voyages round the world, has fairly stated the evidence on both sides; by which I think it is proved, as much as a fact of that kind can well be, unless we

has said, that the Orang Outangs practise navigation or commerce. They live however in society; act together in concert, particularly in attacking elephants; build huts, and no doubt practise other arts, both

shall set mere negative evidence against positive, that men of such a size are to be found in the southern parts of the south continent of America. And that there were once Pigmies in Africa, is positively averred by a very diligent inquirer into the history of animals, I mean Aristotle. *Hist. animal. lib. 8. c. 12.* This Aristotle relates, upon information which he thought could be depended upon. But one *Nonnosus*, who was sent ambassador to Ethiopia by the emperor Justinian, saw himself, in his travels to that country, very little men, whom he describes particularly. See *Photii Biblioth. cod. 3. p. m. 7.* And I have little doubt, but that the Jockos or small Orang Outangs are of this Pigmy race of men.

The same spirit of unbelief in the variety of nature's works, appears to have possessed some of the authors of antiquity, particularly Strabo, who rejects, as fabulous, what several authors, whom he names, had related of extraordinary varieties of our species that were to be seen in India; such as the *στειροφθαλμοι*, or men with eyes in their breast; the *μνοσκελετοι*, or men with one leg. *Lib. 15. p. m. 489.* and *lib. 2. p. 48.* But even such stories we ought not rashly to reject, as absolutely incredible, especially such of them as agree with modern accounts. Now, Sir Walter Raleigh has told us, that he was informed of a people in south America, who had their eyes in their breasts; and an Esquimaux girl, who was taken prisoner by the French in Canada, after she had learned to speak French, related that she had seen a whole nation of men with but one leg,

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for sustenance and defence: So that they may be reckoned to be in the first stage of the human progression, being associated, and practising certain arts of life; but not so far advanced as to have invented the great art of language; to which I think the inhabitants of Nicobar must have approached nearer, (if they have not already found it out), as they are so much further advanced in other arts.

This story is told both by Charlevoix, in his account of Canada, and by the author of Telliamed, p. 254; who adds, that the girl, after having been several times examined and re-examined, stood constantly to the truth of the story. In short, a modest inquirer into nature, will set no other bound to the variety of her productions, than that which Aristotle has set, in that famous maxim of his, adopted, I see, by Mr Buffon, *Quicquid fieri potest, fit. Every thing, that can exist, does exist*; and every thing can exist, that does not imply a contradiction. We ought, therefore, to listen to credible evidence concerning the existence of any animal, however strange, unless we can take upon us to pronounce decisively, that it is impossible by nature that such an animal should exist.

C H A P. IV.

*Of the Orang Outang—The Account Buffon
and Linnaeus give of him examined.*

AS I have so often mentioned this race of animals, I think it proper to give here a more particular account of them than I have hitherto done; being, according to my hypothesis, a barbarous nation, which has not yet learned the use of speech. This opinion, I know, will appear very singular to many, and will give offence to some, as highly derogatory, according to their notions, from the dignity of human nature. But as I do not write to flatter the vanity or prejudices of any man, I will fairly examine the question, and begin with stating the facts, as they are collected by Mr Buffon, in his natural history, vol. 14. And, first, with respect to his body, there has been an accurate dissection made of it by two English anatomists, Mr Tyson and Mr Cooper; and from their observations, joined with some of his own, Mr

Buffon pronounces, that, as to his body, he is altogether man, both outside and inside, excepting some small variations, such as cannot make a specific difference betwixt the two animals, and I am persuaded are less considerable than are to be found betwixt individuals that are undoubtedly of the human species. And, more particularly, he has, says Mr Buffon, the tongue, and the other organs of pronunciation, the same as those of man; and the brain is altogether of the same form and the same size. He and man are the only animals that have the viscera, such as the heart, the lungs, the liver, the stomach and intestines, exactly of the same structure; and they alone have buttocks and calfs of the leg, which make them more proper for walking upright, than any other animal, pag. 61 *. Then there is the

* Mr Tyson says, that his Orang Outang, when he went upon all-four, which was but rarely, walked upon the knuckles, or rather upon the first joints of the fingers of his hands; from which, I think, he very justly infers, that he was not by nature intended to go constantly upon all-four, but only upon occasion, or a present shift. For if it had been his usual way of walking, he would have placed the palms flat to the ground, as all other animals do the soles of the feet, and thereby he would have been rendered better able to bear his weight. *Tyson's Orang Outang, p. 79.*

same variety of size among them that is in our species; for some of them are from six to seven feet, and others of them do not exceed three feet. Of this last kind appears to have been the one dissected by the English anatomists, and in general all those that have ever been seen in Europe: So that, for any thing we know, the great Orang Outang may be still more like men such as we. In short, according to Mr Buffon, the Orang Outang resembles man more in the structure of his body, than he does even the apes and baboons, with whom he is commonly ranked; and therefore, says he, the Indians are excusable for having associated him with the human race, under the name of *Orang Outang*, which signifies, in their language, *a wild man*, pag. 62.

As to the relations of travellers concerning this animal, I will begin with that of Bontius, who was first physician in Batavia, and has written a learned natural history of India, in which he relates, that he saw several Orang Outangs, of both sexes, walking erect; and he particularly observed the female, that she shewed signs of modesty, by hiding herself from men whom she did not know. And he adds, that she wept and

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groaned, and performed other human actions: So that nothing human seemed to be wanting in her, except speech. His words are: ‘*Quod meretur admirationem, vidi ego aliquot utriusque sexus erecte incedentes, imprimis, (cujus effigiem hic exhibeo). satyram femellam, tanta verecundia ab ignotis sibi hominibus occultentem; tum quoque faciem manibus (liceat ita dicere) tegentem, ubertimque lacrymantem, gemitus cientem, et caeteros humanos actus exprimentem; ut nihil humani ei deesse diceres, praeter loquelam. Nomen ei indunt ORANG OUTANG, quod HOMINEM SYLVAE significat.* *Bont. Hist. Natur. Ind. cap. 32. pag. 84. et 85.*

The next authority I shall quote, is that of Purchas, in his collection of voyages, who reports, upon the credit of one Battel, whom he saw and conversed with, that there is, in Africa, an animal, which he calls *Pongo*, resembling a man in every respect, only that he is much bigger, and like a Giant: That they walk always upright, and are armed with sticks, with which they attack even elephants, and drive them out of their woods. They live upon fruits only, and

eat no flesh: That they sleep in-trees, and make huts, to defend themselves against the sun and rain; and, when one of them dies, the rest cover the body with a heap of branches and foliage. He says there are two kinds of them, the one he calls *Pongo*, which is as tall, and much thicker than a man; and the other he calls *Enjocko*, or *Jocko*, who is much less than a man. He says, that they cannot speak; but have more understanding than the other animals. He adds, that Battel told him, that they had carried off from him a little negroe boy, who came back to him again, after staying a year with them, without suffering any harm. This is only an abridgement of what Purchas says. The passage may be seen at large, in Purchas's *Pilgrims*, part 2. book 7. chap. 3. * And two other travellers, Bosman and Gauthier Schoutten, saw this animal likewise, and give in general pretty much the same account of him; adding, that he is very fond of women, whom they always attack when they meet with

* There is a circumstance which Buffon has omitted in Purchas's narrative, and which gives the more credibility to it, that he himself saw that negroe boy of Battel's, who had been a year with the Orang Outangi.

them in the woods. And Dampier, Froger, and other travellers, affirm that they frequently carry away young girls; and that it is with the greatest difficulty that they can be rescued from them. *Buffon, vol. 14. pag. 49. et 50.*

The next authority I appeal to is, that of Gassendi the philosopher, who having advanced, upon the credit of one St Ammand, a traveller, that there were, in the Island of Java, apes resembling men; and the fact being denied, M. Peiresc produced, in defence of Gassendi's assertion, a letter from Mr Noëlle, a physician, who was then living in Africa. Mr Buffon, p. 47. has quoted the very words of the letter; the substance of which is, that, in Guinea, there are apes (so he calls them) of great size, to which he gives the name of *Barris* *. They have

* This is the name by which they are known in the country; and, I think, this must be the animal meant by Horace, where, speaking of a lewd woman, he says,

Quid tibi vis, mulier, nigris dignissima barris?

By *barris* all the commentators that I have consulted, understand *Elephants*; but this is certainly not the meaning, as neither the epithet *black* agrees to an elephant, nor the known character of that animal for chastity, make such a conjunction proper. And, besides the disproportion betwixt

long white beards, which give them a venerable appearance; and they walk with gravity and composure. They excell in judgement and intelligence, and learn every thing very readily; (for, in place of *docendi*, I read *discendi*, the sense so requiring.) When they are clothed, they immediately walk erect; and they play very well upon the pipe, harp, and other instruments. The females among them have their monthly courses; and the males have a great desire for women. Mr Buffon quotes three other travellers, Darcos, Nieremberg, and Dapper, pag. 48. as giving the same account of these *Barri*; and he quotes a fourth, p. 57. one Francis Pyrard, who speaks of their great docility, saying, that, if they are caught, and taught when they are young, they learn to perform all domestic offices, and, particularly, to carry water; and, if they let fall, and break the vessel, they fall a crying. And

the size and shape of a woman and an elephant, is so great, that we cannot suppose, that so correct a writer as Horace would have used so extravagant an hyperbole. Whereas an animal, such as the Physician Noëlle describes, would make a very fit match for a lewd woman. This is a criticism which I owe to my learned and worthy friend Sir John Pringle, president of the Royal Society.

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with him, he says, concurs one father Jarric, who says the same thing, almost in the same words.

The next traveller I shall quote, is a countryman of Mr Buffon, Mr de la Brosse, who made a voyage to Angola in 1738. *Pag.* 50. he says, that these Orang Outangs, whom he calls by the name of *Quimpezes*, being probably the name which the natives of Angola gave them, are from six to seven feet high. They carry away young negroe girls, and keep them for their pleasure: And, he says, he knew one negroe girl that had been with them three years. They make to themselves huts; and the weapon they use is a stick, *p.* 51. Mr de la Brosse says further, *p.* 55. that he purchased from a negroe, two young Orang Outangs, one of which was a male, fourteen moons old, and the other a female of twelve moons. He carried them aboard the ship with him; and he says, that they had the instinct (by which he means, as Buffon rightly understands him, that they had not been taught by the negroe, from whom he bought them) to sit at table; to eat of every thing; to make use of the

spoon, knife, and fork; and drink wine and other liquors. They contrived to make themselves understood to the cabin-boys; and when they did not give them what they wanted, they fell into a passion, seized them, bit them, and threw them down to the ground. The male, he says, fell sick while they were on the road, and made himself to be treated like a sick person. He was twice bled, and afterwards, when he ailed any thing, he held out his arm, and made signs that they should bleed him; as if he had known, says our author, that the bleeding had done him good. Mr de la Brosse does not tell us what became of these two young Orang Outangs: But, it is clear, from the account he gives of them, that they must have been taken from among animals that had arrived at some degree of civility and cultivation. Or, supposing, what Mr de la Brosse does not suppose, that they had learned from the negroe, of whom he purchased them, all those things, which he says they did; it must at least be owned, that, if they were not men, they had the docility belonging to our species.

Another authority quoted by Mr Buffon, p. 56. is that of an English traveller, one

Harry Grefs, who relates, that, somewhere upon the coast of Coromandel, there were two of the little kind caught, scarcely three feet high, the one a male, and the other a female, and given in a present to Mr Horn, the governor of Bombay. That they were entirely of the human form, and their action was, for the greater part, that of a man: That they made their bed in the box in which they were put, with great care; and, when they were looked at, they concealed with their hand, those parts, which modesty forbids to shew. They were sensible of their captivity, and appeared, on that account, melancholy. The female died on board a ship, which afflicted the other so much, that he abstained from food, and survived his companion but two days. And we may observe, that this account which our English traveller gives of their modesty, agrees perfectly with Bontius's relation.

And, that we may have the authority of an Italian, as well as a French and English traveller, I shall quote, from Mr Buffon, *p.* 58. the testimony of Gemelli Carreri, who says, that these apes, so he calls them, seem to have more wit than men in certain respects. For, when the fruits upon the moun-

tains fail, they come down to the shore, where they find oysters of a great size, weighing several pounds. Some of these lie open upon the beach: But, for fear they should shut, and catch them while they are taking out the oyster, they put in a stone, which prevents that danger; and so they take out the oyster, without any risk.

The last testimony, from Buffon; I shall mention, is that of Buffon himself, who says, *Pag. 53.* that he saw one of the small kind, who walked always upon two; and, in that, and all his movements, was grave and composed. He was of a sweet temper; and, in that respect, very different from the ape or monkey kind; for he did every thing that he was desired to do, by signs or words; whereas those of the other kind did nothing, but from the fear of blows. He gave his hand to those who came to see him, in order to shew them the way out; walked with them with great gravity, as if he had been of their company; and when he was set at table, he behaved, in every respect, like a man, not only doing what he was bid, but often acting voluntarily, and without being desired.

To these authorities, I will add that of a creditable merchant in Bristol, still living,

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who formerly was captain of a ship trading to the slave coast of Africa, and made several voyages thither. His son succeeded him in the command of the ship, and still continues that trade *. The account which he

* The letter from this merchant which is here inserted, was procured me by Mr Bell; who was governor of Fort Cape-Coast in Africa for several years, and is now living in Scotland. The letter is as follows:

Of this animal there are three classes or species; the first and largest is, by the natives of Loango, Malemba, Cabenda, and Congo, called or named Impungu. This wonderful and frightful production of nature walks upright like man; is from 7 to 9 feet high, when at maturity, thick in proportion, and amazingly strong; covered with longish hair, jet black over the body, but longer on the head; the face more like the human than the Chimpenza, but the complexion black; and has no tail. When this animal sees a negroe, it mostly pursues and catches them; it sometimes kills them, and sometimes takes them by the hand, and leads them along with him. Some that have made their escape say, that this animal, when it goes to sleep, does not lie down, but leans against a tree. In this position; when the prisoner finds it asleep, he steals away his hand or arm softly from his, and so steals away quietly, sometimes discovered and retaken. It lives on the fruits and roots of the country, at the expence chiefly of the labour of the natives; and when it happens to be where there is no water, there is a tree, with a juicy bark, which it strikes with its hand; bruises, and sucks the juice; and some of this tree it often carries with it when it travels, in case it should not find it, or water, by the way. And indeed I have

gives of this animal is, in substance, that there are three kinds of them, a greater, a lesser, and one that is of a middle size between the two. The greater he calls *Im-*

heard them say, that it can throw down a palm tree, by its amazing strength, to come at the wine. I never saw this animal; but there was a young one brought down from the inland-country to the King of Malemba, which is next to Cabenda, while my son was there. The people that brought it down said, it was quiet and composed, the several months they had it, eating, and taking its victuals and drink quietly. It was brought down with a yoke about its neck, and its hands tied, like the other slaves that came with it, and came down quietly. But, when it came to the King's town, such amazing crowds came to see it from all quarters, it grew sullen and sulky, for being so exposed, would eat no victuals, and died in four or five days. It was young, about six feet and a half high. I have never seen this animal, nor my son; but he, in his last voyage, saw the hand of one of them, cut off about four inches above the joint of the wrist. It was dried and withered; yet, in that state, its fingers were as big as three of his, or bigger than his wrist, rather longer than the proportion of ours; and the part where cut off, in that wrinkled state, bigger than the biggest part of his arm, the upper part of the fingers, and all the other parts, covered with black hair; the under part like the hand of a negroe. It is said to be the strongest of all the beasts in the wood; and all are afraid of it. I have not heard of this animal any where but on the coast of Angola.

The Chimpenza, as the natives call it, the third and smallest class of this species, resembles the other in shape,

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pongu, the same, no doubt, that, by other travellers is called *Pongo*. This kind walks always upright, and is from seven to nine feet of stature, which is a greater height, by two feet, than any other traveller has mentioned. Neither he nor his son ever saw

- only smaller, and walks oftener on all four than upright.
- We scarce know when this animal comes to a state of maturity, or the common period or length of its life.
- I am informed, the females have their times like women. I had one on board, of the male sex; but it was very young.
- My son had a she-one aboard his ship last voyage. The natives that brought it down, said it was three years old; but there was no appearance of the menses in the time he had it on board, which was three or four months.
- It is said of this animal, that they associate in communities, and build little towns or villages; that, when their houses are finished, they immediately leave them, and go to building more, never chusing to sleep but as few nights as possible in one place. They have their games and pastimes like the natives; and it is said they have a King who does not work himself, but orders. This animal, when taken young, and used to the natives in their dwellings, does not like to stir out of doors after dark; nor can they force it. One, at Serraleon, in my time, when the women used to go out to gather sticks, went with them, and gathered its bundle; and, when they went for water, carried its pitcher or jar, and brought it home full with the rest. It is covered with a longish hair, jet black, the hair on the head longest, and shaded in the middle to each side; the complexion of the face rather darker than the mulattoe; the face flatish; a large wide mouth, almost from ear to ear, small

this extraordinary animal, who, according to his information, is only to be seen in the kingdom of Angola: But his son, he says, in his last voyage, saw the hand of one of them cut off, a little above the wrist, which, though dry and withered when he saw it,

‘ flattish nose, longish chin, eyebrows and forehead like
 ‘ ours, and good regular teeth like ours; makes comical
 ‘ grimaces with its face, and in its face is most like to the
 ‘ most ugly old mulattoe woman you ever saw, but uglier.
 ‘ Its face cannot help exciting laughter; and I have
 ‘ heard the natives say, if they are laughed at, they take it
 ‘ to heart; which I believe is the reason why scarce one
 ‘ of them can be brought home alive. My young one I
 ‘ got at Serraleon, I could keep alive only three months;
 ‘ and this might be the cause of his untimely end; as a
 ‘ friend of mine, that resided there many years, told me,
 ‘ that the natives assured him, that, if they were laughed
 ‘ at and made game of, they certainly took it to heart
 ‘ and died. My answer to him was, if that was the case,
 ‘ they must die; for it was impossible to look at them
 ‘ without laughing. This animal I have only seen at
 ‘ Serraleon and the coast of Angola, never on the Gold
 ‘ Coast; the Impungu I have never heard of, but on the
 ‘ coast of Angola. The Chimpenza, at its full growth, is
 ‘ from two to three feet high on all-four; is very strong,
 ‘ much stronger than man in proportion, as appears by
 ‘ a droll adventure that happened near Cabenda, with
 ‘ one of these animals, a little before my son was there
 ‘ last. As the women in that country do mostly the work of
 ‘ the field, one of them told her husband, that something ate
 ‘ the corn and the sugar canes. He accordingly gets up next
 ‘ morning, loads his gun; and seeing some of these ani-

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was so much larger than the hand of an ordinary man, that it must have belonged to an animal of no less size than nine feet, or perhaps greater. And the gentleman who procured me this information (Mr Bell) told me, that he knew an English surgeon, who

• mals among the corn, fires among them, and wounds
• one, which happened to be a female. The husband, a-
• larmed at its cries, and exasperated, pursues the man,
• who had just time to get into his house, and shut the
• door, before the Chimpenza came up with him. It
• soon burst open the door, seized the man, drags him
• out and hauls him along. The wife cries out and a-
• larms the neighbours, saying an old man with a white
• face, which the Chimpenza resembled, had run away
• with her husband. They gathered as many as they
• could, and as soon, to rescue the man; but the Chim-
• penza had got him near to where his wife was, before
• they came up, and would not let him go till they had
• shot him dead. This man used to come to the factories,
• and goes by the name of the Chimpenza, and I suppose
• will as long as he lives. This animal lives chiefly or al-
• together on the fruits of the country, such as plantains,
• bananas, palm nuts, sugar canes, and ears of corn,
• which they roast as the natives do. I asked how they
• made their fire; was told, they take a stick out of the
• black people's fire that are at work in the field, and so
• make their own. When a he one catches a black wo-
• man, it commonly forces, and lies with her; if there are
• several, they all do it, it seems, in their turns.

• The Itfena is a species betwixt the two former, less
• than the Impungu, and larger than the Chimpenza; like
• the Chimpenza in every respect, unless in size. They keep

measured the body of one of them that was above eight feet. His body is covered with black hair, but the hair of his head longer. He is amazingly strong, and the terror of the woods which he inhabits, living altogether upon the fruits of the earth. They

to themselves, the Chimpenza and they not agreeing.
 • N. B. all the three species have no tail.

It may be observed, that the writer of this letter says, that the Orang Outangs, when they want water, satisfy their thirst by sucking the juicy bark of a certain tree. Gabriel Sagard, a French traveller in North America, of whom I shall have occasion to make frequent mention afterwards, says the same of the Hurons, a people of North America p. 126.

This letter-writer, by what he says of the Orang Outang throwing down palm trees, in order to come at the wine, seems to suppose that the juice of the fruit is a vinous liquor without fermentation. If so, he is a bad chymist; and those who are resolved not believe that the Orang Outang is a man, will, from this mistake, suspect his veracity and accuracy in matters of fact, which he must have understood. And those who presume, I do not know upon what system of philosophy, to limit the power of creation in the noblest, as well as most various work of God here below, to six or seven feet of stature, will, I know, upon the credit of their hypothesis, either reject altogether the letter-writer's narrative, or boldly assert that this animal of nine feet is a gigantic monkey, not a man. But to those, who have already decided this question, and therefore are not disposed to inquire, I do not write.

purſue the negroes when they ſee them, and ſometimes kill them; at other times they make priſoners of them, and lead them off by the hand. One of themſelves was taken, and brought with ſome negroe ſlaves to the capital of the kingdom of Malemba. He was a young one, but ſix feet and a half tall. Before he came to this city, he had been kept ſome months in company with the negroe ſlaves, and during that time was tame and gentle, and took his victuals very quietly; but, when he was brought into the town, ſuch crowds of people came about him to gaze at him, that he could not bear it, but grew ſullen, abſtained from food, and died in four or five days. The little one, which he calls *Chimpenza*, appears to have the ſame ſenſe of honour. For, if they are laughed at, they take it ſo much to heart, that they languish and die, as the natives affirmed him; and he had one of them himſelf aboard his ſhip, who died, as he imagines, for that reaſon, in three months. And he tells a ſtory of one of them, which ſeems to ſhew that they have a ſenſe of juſtice as well as honour. For a negroe having ſhot a female of this kind that was feeding among his Indian corn, the male, whom our author calls

the husband of this female, pursued the negro into his house, of which having forced open the door, he seized the negro and dragged him out of the house, to the place where his wife lay dead or wounded, and the people of the neighbourhood could not rescue the negro, nor force the Chimpenza to quit his hold of him, till they shot him likewise. If he had severely beaten or killed the negro, it was nothing more than what might have been expected from brutal fury and revenge; but the dragging him to the place where his mate lay dead could not, in my apprehension, be with any other design, but to shew him what he had done, and then, perhaps, offer him up to the *manes* of the dead. It is reported, says our author, that these Chimpenzas live together in communities, build little towns or villages, are governed by a king that does not work, and have their games and pastimes as well as the negroes. So far at least is certain, that, if they have a sense of honour and justice, they must likewise be a political animal. Their height, when upon all-four, is betwixt two and three feet; so that we may suppose their height, when they stand erect, to be about double that; and their strength appears,

from the above mentioned story, to be greater, than that of an ordinary man. The middle species he calls *Iscua*. They are greater than the Chimpenza, and less than the Impungu. They herd by themselves, not mixing with either of the two other kinds.

Such is the account, which this gentleman gives of the several kinds of the Orang Outang; and I trust the more to the facts related by him, that he sets out upon an hypothesis different from mine, viz. that the Orang Outang is not a man, but a species betwixt man and monkey. This at least makes me sure, that he does not violate truth, in favour of my hypothesis.

The substance of all these different relations is, that the Orang Outang is an animal of the human form, inside as well as outside: That he has the human intelligence, as much as can be expected in an animal living without civility or arts: That he has a disposition of mind, mild, docile, and humane: That he has the sentiments and affections peculiar to our species, such as the sense of modesty, of honour, and of justice; and likewise an attachment of love and friendship to one individual, so strong in some in-

stances, that the one friend will not survive the other: That they live in society, and have some arts of life; for they build huts, and use an artificial weapon for attack and defence, viz. a stick; which no animal, merely brute, is known to do. They shew also counsel and design, by carrying off creatures of our species, for certain purposes, and keeping them for years together, without doing them any harm; which no brute creature was ever known to do. They appear likewise to have some kind of civility among them, and to practise certain rites, such as that of burying the dead.

It is from these facts that we are to judge, whether or not the Orang Outang belongs to our species. Mr Buffon has decided that he does not. Mr Rousseau inclines to a different opinion. The first seems to be sensible of the weight of the facts against him, and particularly what Bontius, the Batavian physician, relates. But Bontius, says he, has exaggerated. He was prejudiced; and, if we retrench from his narrative what he has said of the modesty of the Orang Outang female, there will remain nothing but an ape, of which we have more accurate descriptions from other authors. *Ibid.* p. 46.

If we are in this way to treat the testimony of a learned physician and naturalist, I do not know how any fact of natural history can be proved. But why does he not reject, for the same reason, the authority of a countryman of his own, Mr Noëlle, likewise a physician; and who reports what is still more extraordinary than what Bontius relates of this animal, and indeed incredible, upon the supposition of his being a monkey, not a man, namely, the learning to play very well upon the pipe, harp, and other instruments of music? Why not that of Mr de la Brosse, likewise his countryman? Why not that of Henry Gros, our countryman? Why not that of Battel and Purchas, from whom he has taken his division of this species of animal into great and small, calling the great *Pongo*, and the small *Jocko*? *Ibid.* p. 49. besides several others whom I have not mentioned, particularly, one Mr Guat; who relates that he saw, in Java, and brought along with him in the ship, a female, whom he is pleased to call an ape; who shewed the same marks of modesty that the female Orang Outang did, mentioned by Bontius, by covering with her hand what the antients thought it was proper the

Goddeſs of love ſhould conceal, in the ſame manner; and beſides, performed ſeveral other human actions, ſuch as, making her bed, covering herſelf with the bed-cloaths, binding her head with a handkerchief, when ſhe had a headach? *Ibid. pag. 57. et 58.* If ſuch actions as theſe, and others mentioned by other travellers, whom I have quoted, are not the reſult of human intelligence, I do not know how we are to diſcover it from actions: And if we do not believe facts proved by ſuch a concurrence of testimony, not only of common travellers, but of learned phyſicians, I repeat it again, I do not know how any fact of natural hiſtory is to be proved.

There are ſome of our naturaliſts, who have attended ſo much to facts, and dealt ſo much in experiment, that they ſeem to have given up their reaſon altogether; for they will believe nothing, but what is proved by the evidence of ſenſe. There are others, who have gone to a contrary extreme; and having formed ſyſtems without facts, adjust the facts to their prejudicated opinions, believing juſt as much of them as ſuits their purpoſe, and no more. In this number, I take Mr Buffon to be, who has formed to himſelf a definition

of man, by which he makes the faculty of speech a part of his essence and nature; and having thus defined man, he boldly avers, that the state of pure nature, in which man had not the use of speech, is a state altogether ideal and imaginary, and such as never had any real existence. *Ibid.* p. 36.

This definition of man is very different from that given by antient philosophers; none of whom ever dreamed, that any thing else was essential to man, except reason, and intelligence, to which, if we please, we may add, as some of them did, the human form. And I hope, I have so far supported the opinion of my masters, as to have shewn, beyond the possibility of doubt, that articulation is not natural to man. And indeed, I will venture to say, that any man who believes the contrary, either does not understand the nature of this so artificial operation, and thinks, like the mere vulgar, that, because he performs it so easily, therefore it is natural to him; or he must be understood to speak of man, in another state of existence, more perfect, and with faculties much superior to those which he enjoys at present.

Mr Buffon does not say, in so many words, that articulation is as natural to man as the animal operations of breathing, digesting, and moving; tho' I think he must be understood to believe so, in order to make him consistent with himself. But he says, that, if we could suppose a mother without the use of speech, she would, in the space of three years, which, he thinks, is the time necessary to nurse and rear a child, form a language, by the intercourse which she must necessarily have with the child. *Ibid. pag. 36.* If this be true, Mr Buffon is undoubtedly right in the conclusion which he draws from it, That, as the Orang Outangs have not invented a language, they are not men: For the fact cannot be doubted, that the Orang Outang mothers nurse their own children, tho' I think it may be very justly doubted, whether they require so long tendance from the mother, as the space of three years. But, if there be any truth in what I have endeavoured to establish, this supposition of Mr Buffon, that a language would be invented in three years, by the intercourse betwixt a mother and a child, is most wild and extravagant, and plainly shews, that, however much Mr Buffon may

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have studied facts of natural history, he has not considered language as a philosopher. And he appears to me not even to have sufficiently attended to a fact, that falls under daily observation, I mean, the commerce betwixt a mother and her child, which, among the brutes, must of necessity be carried on by inarticulate cries, or by signs and gestures; and is likewise so carried on for the greater part among us. For, tho' the mother or nurse, being in the habit of speaking, and commonly much inclined to speak, have a great deal of conversation with the child; yet I believe Mr Buffon will not pretend, that the child understands this conversation, at least for the first two years. And the fact most undoubtedly is, that, whatever a child, when it is very young, learns by the voice of the mother, is from her inarticulate cries, of which they use a great many. Here, then, we have a language invented by a mother or nurse, in the space of no more than three years, without any the least necessity; as it is evident, that the whole business could be carried on, without any such communication betwixt the parties, which, for the greater part of the time, would be

altogether impracticable. But, supposing the invention to be of some use, how shall we reconcile this great facility of inventing a language, with what Mr Buffon says in another place, (*ibid.* p. 35.) of the great difficulty of learning a language after it is invented, tho' the learner have the advantage of both imitation and instruction? The same word, says he, must be repeated to an infant, a thousand and a thousand times, before he can learn to pronounce it; and, before he can apply the sound, after he has learned it, to its proper object, that object must be presented to him a thousand and a thousand times likewise. If it be so difficult for the child, even by imitation and instruction, to learn a language, how is it possible to suppose, that the mother, in the space of three years, should have invented it? Or, if we could suppose, that the mother had capacity for so wonderful an invention in so short a time, how can we suppose, that, while she was occupied with the care of nourishing and preserving her child, she would be at the trouble of inventing what was altogether useless for her child? If we can believe this, we must likewise believe, that a savage, altogether

solitary, would invent a language, for which he had no use.

If, therefore, language be not essential to man's nature, nor of so easy acquisition, that it will result from the natural operation of a mother nursing her child; it follows, of consequence, that there was a time when men did not speak. Now, I desire to know, in that situation, what would be the criterion and distinguishing mark of difference, betwixt men and the Orang Outang, in his present state? Nay, I will go further; and I desire any philosopher to tell me the specific difference betwixt an Orang Outang sitting at table, and behaving as Mr de la Brosse or Mr Buffon himself has described him, and one of our dumb persons; and, in general, I believe it will be very difficult, or rather impossible, for a man, who is accustomed to divide things according to specific marks, not individual differences, to draw the line betwixt the Orang Outang and the dumb persons among us. They have both their organs of pronunciation, and both shew signs of intelligence by their actions, with this difference, no doubt, that our dumb persons, having been educated among civilized men, have more intelligence.

But how is it possible, from this difference only of greater or less, and which can be so well accounted for, to conceive them to be of different specieses?

Thus I have endeavoured to support the antient definition of man, and to shew that it belongs to the Orang Outang, though he have not the use of speech. And indeed it appears surprizing to me, that any man, pretending to be a philosopher, should not be satisfied with the expression of intelligence in the most useful way, for the purposes of life, I mean by actions; but should require likewise the expression of them, by those signs of arbitrary institution we call *words*, before they will allow an animal to deserve the name of *man*. Suppose that, upon inquiry, it should be found, that the Orang Outangs have not only invented the art of building huts, and of attacking and defending with sticks, but also have contrived a way of communicating to the absent, and recording their ideas by the method of painting or drawing, as is practised by many barbarous nations, (and the supposition is not at all impossible, or even improbable); and suppose they should have contrived some form of government, and should elect kings or rulers, which is possible, and, according to

the information of the Bristol merchant above mentioned, is reported to be actually the case, what would Mr Buffon then say? Must they still be accounted brutes, because they have not yet fallen upon the method of communication by articulate sounds?

But, as I must admit, that, if the Orang Outangs be men, they have at least the capacity of learning to speak by imitation, what shall I say to the other set of philosophers that I mentioned, who will believe nothing but what is proved by fact, and consequently will not believe that the Orang Outang could be taught to speak, unless he were actually so taught? We will, therefore, say they, suspend our judgement concerning the humanity of your Orang Outang, till we hear, or are credibly informed that some of them speak.

With such philosophers, it would be in vain to argue, that, having the human intelligence, and likewise the organs of pronunciation, they must necessarily have the capacity of learning, by teaching and imitation, if not of inventing a language; and, if he have the capacity of learning to speak, that is sufficient to denominate him a man, though he never attain to the actual exercise

of the faculty; because human nature, as we have elsewhere observed, consists chiefly of capabilities. But I say to these gentlemen, *first*, That the experiment has never been fairly tried upon any Orang Outang that has been hitherto brought to Europe. For it does not appear that any pains were ever taken to teach any of them to speak. We cannot therefore affirm that they would not learn the art, if the same pains were to be bestowed upon them that Mr Braidwood bestows upon his scholars.

But, *2dly*, I say, that, if the experiment should not succeed, it would not prove that the Orang Outang is not a man. For the habits and dispositions of mind, and, by consequence, the aptitude to learn any thing, are qualities which go to the race, as well as the shape and other bodily qualities. And it is for this reason, that the offspring of a savage animal will never be so tame, whatever pains may be taken upon him, as the offspring of a tame animal. And, I am persuaded, it is with wild men, as with wild fruits, which we know will not lose their savage nature at the first remove, but can only be tamed by continued culture for a succession of generations. And, accordingly,

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Kolben, in his account of the Hottentots, tells us, that it is not possible to tame a Hottentot, and reconcile him to Dutch manners, though taken quite young, and bred up in the European way ; and he says, the experiment has been often tried, but never succeeded. In like manner, an Iroquois, or Huron, though taken very young, the Europeans have never been able to breed to labour or a sedentary life. It is, therefore, not unlikely, that the child of an Orang Outang, and much less a grown one, would not have that disposition of mind, and aptitude to learn a language which our children have. And besides, we ought to consider, that it is a distinguishing characteristic of the barbarous nations, that they are very lazy, and altogether averse to labour, unless where they see an urgent necessity for it. Now, to learn to speak, is a matter of great labour, as Mr Buffon himself acknowledges, even though we begin as early as possible, and have the benefit of imitation as well as instruction.

Lastly, I say, that, in certain parts of the world, this wild man of the woods is to be found with some use of articulation. This

is attested by Mr Maillet, the author of the Description of Egypt, who, in a work of his, entitled *Telliamed*, has collected a great many curious facts concerning the varieties of our species. In this work he relates, that, in 1702, the Dutch East India company sent out two vessels from Batavia for the coasts of New Guinea, and the southern countries, in order to trade and make discoveries. During that expedition, which was of no use, the Dutch seized two male animals, which they brought to Batavia, and which, in the language of the country where they were taken, they called *Orangs Outangs*, that is, *Men who live in the woods*. They had the whole of the human form, and like us walked upon two legs. Their legs and arms were very small, and thick covered with hair, some of which they also had on the whole of their body, their faces not excepted. Their feet were flat where they are joined to the leg; so that they resembled a piece of plank with a baton driven into it. These *Orangs Outangs* had the nails of their fingers and toes very long, and somewhat crooked. They could only articulate sounds very indistinctly; but were very melancho-

‘ly, gentle, and peaceable. The one died
‘at Batavia, and the other in the road to
‘Holland, whither he was sent as a curiosi-
‘ty worthy the admiration of all Europe*.
Those who are resolved not to believe that
the Orang Outang is of our species, will not,
I know, believe this story. But, for my
part, I have not the least doubt of it; not
only from the credit that is due to this au-
thor, but because I know myself a gentle-
man, who saw two such animals as Mr Mail-
let describes, at Batavia, who came likewise
from New Guinea, or New Holland, and
had some little use of articulation. And
indeed, upon much less authority, I should
be disposed to believe, that a creature, who
is in every respect capable of speaking, did
actually speak.

But, suppose he were nowhere to be found
with the use of this faculty, I still maintain,
that his being possessed of the capacity of
acquiring it, by having both the human in-
telligence and the organs of pronunciation,
joined to the dispositions and affections of
his mind, mild, gentle, and humane, is suf-
ficient to denominate him a man. And it
appears very extraordinary to suppose that

* *Telliamed*, English Translation, p. 246.

he is of another species, not because he wants any organs that we have, such as the organs of speech, but because he does not make the same use of them ; a thing which I have shewn is a matter of art, and not to be acquired but by men who have lived long together in close intercourse, and practised other arts. And, therefore, it is not to be wondered, that, if men have had no occasion to live together in that kind of strict society, but have been able to subsist upon the natural fruits of the earth, with few or no arts, which is the case of the Orang Outang, they should not have acquired a language. And thus much with respect to Mr Buffon's opinion concerning this animal.

I come now to examine Linnaeus's opinion. He agrees with me, that speaking is not essential to man; for he makes the characteristics of the wild man to be *four-footed, mute, and rough, or hairy**. As to the Orang Outang, he makes him to be the same with the Troglodyte—calls him *homo nocturnus*—says that he is to be found in the countries bordering upon Æthiopia, and in the caves of Java, Amboina, and Ternatea. His colour is white; he walks erect; is of less stature than ours by a half; his

* *Tetrapus, mutus, hirsutus.* System. Nat.

eyes are of an orbicular form, with other particulars concerning his make. He lives five and twenty years. He is almost blind in day light, and then lurks. At night he sees, comes out and steals: He makes a hissing noise in speaking. He believes, the Earth was made upon his account, and that some time or other he is to govern it *. This animal Linnæus makes the same with the Orang Outang, or *homo sylvestris*, of Bontius. But it is impossible he can be the same with the great Orang Outang which Battel, Schoutten, Mr De la Brosse, Guat, and so many other travellers have seen. Mr Buffon thinks that he has confounded the Orang Outang with the white Negroe. But, as Linnaeus has given him the *membrana nictitans*, or film which comes over the eye,

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* * Corpus album, incessu erectum, nostro dimidio minus. Pili albi, contortuplicati. Oculi orbiculati: Iride pupillaque aurea. Palpebrae antice incumbentes, cum membrana nictitante. Visus lateralis, nocturnus. Manus unum digiti in erecto attingentes genua. Ætas viginti quinque annorum. Die caecutit, latet; noctu videt, exit, furatur. Loquitur sibilo; cogitat, ratiocinatur, credit sui causa factam tellurem, se aliquando iterum fore imperantem, si unquam fides peregrinantibus multis.
Syst. nat. vol. 1. p. 33.

as in a hawk, I think it is evident that he is not the white negroe any more than the Orang Outang, neither of which has this membrane. But the animal Linnaeus here describes is, the Troglodytes of Abyffinia, and who probably are the same with the Troglodytes mentioned by Herodotus. Of them I have spoken in a note upon the preceding chapter, pag. 245. But I do not understand what Linnaeus means, when he says that this Troglodyte, or Orang Outang, is of the genus of man, but not of a species of men such as we belong to. Nay, he will not so much as allow him to be a variety of our species, of which, he says, his having the *membrana nictitans*, and the length of his arms or hands, is a clear proof*. In the

* GENUS Troglodytae ab homine distinctum, adhibita quamvis omni attentione, obtinere non potui, nisi assumerem notam lubricam, in aliis generibus non constantem. Nec dentes lanarii, minime a reliquis remoti; nec nymphae Cassrae, quibus carent simiae, hunc ad simias reducere admittebant. Inquirant autoptae in vivo, qua ratione, modo notae aliquae existant, ab hominis genere separari queat; nam inter simias versantem oportet esse simiam. *Appelloder.*

SPECIEM Troglodytae ab homine sapiente distinctissimam, nec nostri generis illam, nec sanguinis esse, statura quamvis simillimam, dubium non est; nec itaque varietatem credas, quam vel sola membrana nictitans absolute negat, et manuum longitudo; vol. 1. pag. 33.

first place, according to the philosophy that I have learned, man is not a genus, but one of the lowest species of the genus animal, below which there is nothing but individuals. He is defined by the antient philosophers to be a *rational animal, capable of intellect and science*; according to which definition, every rational animal with that capacity, whether mute or speaking, black or white, great or small, with round eyes or long eyes, &c. is a man. If these variations go to the race, I call them *variations of the species*; such as that of black and white, flat noses and thick lips, which are the differences betwixt us and the negroes. If they do not go in the race, or only sometimes, but not constantly, such as deformities among us, and the difference of great and small, the colour of the eye, and other peculiarities of our structure, I call them *variations of the individual*. If the variation is very great, and much out of the common course of nature, we call such an individual a *monster*. Of this kind, according to my information, is the white negroe; for he is produced of black parents; and, if he propagate at all, of which I am not sure, he

does not beget another white negroe; so that there is no race of such men. And the same I take to be the case of the spotted men, of whom Strahleberg, the Swedish officer, speaks in his account of Siberia.

But, *2do*, It appears to me very strange, that an animal, which thinks, forms opinions, and speaks, as Linnæus has described his Troglodyte, should not be of our species, but, on the contrary, perfectly distinct from the *homo sapiens*, the name that he is pleased to give us.

It may be true, that, not having studied Linnæus's system, I do not understand his method of arranging and dividing the subjects of natural knowledge, and perhaps I may not rightly apprehend the sense of the words that he uses. But this, I think, I understand, that, though it may be useful for the purposes of anatomy and natural history, to observe the several variations of the bodily structure of animals, and to class them according as they have or have not *mammæ*, for example, or teeth of a certain form; yet, if we will divide philosophically, the genus of animal into its subordinate specieses, we must fix upon some criterion, or mark of difference, by which one animal

is essentially distinguished from another; that is to say, I must chuse a property of the animal, such as is predominant in his nature, and from which the most of his other properties result. This property in man the antients understood to be intelligence, which, therefore, they made to be the specific difference betwixt him and other animals. Now Linnaeus has followed a method very different; for he has separated man from other animals by his having *mammae*, and so has made him a species of a great genus, which he calls the *Mammalia*, comprehending, besides man, many other specieses, and particularly the whale, which in this way he makes akin to us. But, allowing all this to be right, what shall we say of his making a genus as well as a species of man, and subdividing him into two specieses, the *homo sapiens*, and the *Troglodyte*, or *homo nocturnus*? The *homo sapiens*, as he has characterized him, is a man such as we are, with intelligence, from which he gives him his denomination, and with several variations which he has observed. After this, when he comes to describe the *Troglodyte*, he gives him intelligence too; for he says, he thinks, forms

opinions, and speaks. But he is perfectly distinct, says he, from the *homo sapiens*: And why? because he has a *membrana nictitans*, which the *homo sapiens* has not, and longer hands or arms than we. And thus, he makes this membrane, or a greater length of hand or arm, to be a characteristical mark of difference betwixt two species, without shewing them to be properties in any degree eminent, or the foundation of any other property of the animal, external or internal, of body or mind. I must therefore, till I am better instructed, adhere to the antient method of arranging and dividing things into genus and species. If Mr Buffon had studied this method sufficiently, he never would have maintained, that an animal with the human intelligence, and having the capacity of speaking, though not the actual exercise of it, was not a man. For good logic I hold to be the foundation of science of every kind; and our philosophers may observe and experiment as much as they please; yet, when they come to reason upon those experiments and observations, if they have not learned that greatest of all arts, as Ci-

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cicero calls it*, by which things are arranged into their several classes, and every more general idea divided and subdivided into the subordinate and inferior, they will fall into very great errors.

But, though I hold the Orang Outang to be of our species, it must not be supposed that I think the monkey, or ape, with or without a tail, participates of our nature; on the contrary, I maintain, that, however much his form may resemble ours, yet he is, as Linnaeus says of the Troglodyte, *nec nostri generis, nec sanguinis*. For, as the mind, or internal principle, is the chief part of every animal, it is by it principally that the ancients have distinguished the several species. Now, it is laid down by Mr Buffon, and I believe it to be a fact that cannot be contested, that neither monkey, ape, nor baboon, have any thing mild or gentle, tractable or docile, benevolent or humane, in their dispositions; but, on the contrary, are malicious and untractable, to be govern-

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* Cicero speaking of this art, says it is ‘ars, quae docet rem universam tribuere in partes, latentem explicare definiendo, &c. And a little after, he calls it ‘omnium artium maximam.’ *Brut. five De clar. Orat. cap. 41.*

ed only by force and fear, and without any gravity or composure in their gait and behaviour, such as the Orang Outang has.

But, although they have not the affections or dispositions of men, it must be confessed that they have a great deal of the human sagacity. They do not use a stick for a weapon as the Orang Outangs do, but they use missiles, and will pelt a man with nuts, or any other hard fruit. And they use this method of throwing, in their contrivance to rob an orchard, as described by Kolben in his account of the Cape of Good Hope.* They have something too of the human faculty of imitation: But it appears to be entirely confined to mimicry, or imitation by gestures; for they do not imitate by the voice, as man does. And this is by some thought to be the reason why they have not invented a language. But I think there are two better reasons for it. The first is, that they are not capable of intellect, or of forming ideas. And, *2dly*, They do not appear to have been ever so closely united in society as is necessary for the invention of a language. But, suppose that their capacity were greater, and

* See the passage quoted by Buffon, Nat. Hist. vol. 14, pag. 136.

that they could form ideas, it is certain that they have not the faculty of imitation by the voice, such as a parrot or jack-daw has, otherwise they might be taught to speak, as these animals are taught.

C H A P. V.

Continuation of the Subject—General Rules for Definition—Application of those Rules to the Definition of Animals in general and of Man—That this Definition applies to the Orang Outang—Differences between us and the Orang Outang accounted for.

W*hat is man?* is a question of such curiosity and importance, that the reader will readily excuse my bestowing another chapter upon it. In order to judge of what is, or is not a proper definition of man or any other animal, we must know something in general of the nature of definition. I will, therefore, begin with laying down some rules concerning it, such as I have learned from the study of antient phi-

lofophy. For, as definition is the foundation of all fcience, there is nothing more accurately treated of by the antient philofophers, particularly thofe of the peripatetic fchool; nor is there any thing that Aristotle has beftowed more pains upon, having treated of it with great accuracy, both in his fecond Analytics, and in his books of Metaphyffics. The philofophers of the prefent age have not thought it worth their while to beftow fo much pains upon this fubject; and, particularly, it has been much neglected by our natural philofophers, though, according to their method of philofophifing, there is nothing they fhould have ftudied more. The antients, in phyffics, as in every thing elfe, began with general principles, fuch as matter, form, and motion, of which Aristotle has treated at great length in his eighth book of General Phyffics, entitled in Latin *De Naturali Aufcultatione* *. Of fuch principles, arranged and put together by divine intelligence, they framed their fyftem of nature; whereas, in natural philofophy, the moderns appear to me to be little farther advanced than natural hiftory, which indeed we have made more full and complete than it was among

* Περὶ Φυτικῆς ἀκροατικῆς

the antients. But we have nothing that I think can be called science with respect to natural things, except the arrangement and distribution of them into separate and distinct classes. Now, for this, *definition* is absolutely necessary, as well as *division*, with which, as shall be shewn, definition is intimately connected. And yet, the two great naturalists of this age, Linnaeus and Mr Buffon, appear to me not to have studied either sufficiently. As to Linnaeus, if he has defined and divided properly, when he makes a genus of the animal *man*, and divides it into specieses, by such specific differences, as the having longer or shorter arms, and the having or not having a film which comes over the eye, he has learned or invented an art of definition and division very different from what I have learned, or is to be found in any book of philosophy, antient or modern, that I know. As to Mr Buffon, he rejects altogether Linnaeus's divisions into genres or classes, and insists much upon nature having only formed individuals*. But, as I have elsewhere shewn, there can be no science of individuals, and we have no knowledge of any thing

* Hist. Natur. vol. 1. p. 14. Vol. 2. p. 160. Vol. 4. p. 384. et *passim*.

but by the genus or species to which it belongs. To be convinced of this, let any man try to describe any particular object of sense, and he will find, that he can do it no otherwise than by referring it to some genus or species; or, if it be a thing of a species unknown to him, he will describe it by certain qualities known to him, that is, of which he has formed ideas. Thus, for example, he describes the thing by a certain colour or figure, which he says it has; but, before he can do that, he must have the idea of that species of colour or figure. Nothing therefore can be known but by knowing either directly the species to which it belongs, or by knowing other specieses, which enable us to form some notion of the object unknown. If this be true, there can be no philosophy or science of any kind, without knowing the genres or specieses of things; and, as that cannot be attained without definition and division, it should seem that a good system of logic, of which the art of defining and dividing is a principal part, is the foundation of all science. As therefore the subject is of such importance, I will shortly lay down the rules concerning definition and division, as I have learned them

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in the peripatetic school, and I will apply these rules to the definition of man.

And, first, with respect to definition, it consists, says Aristotle, of two parts, the *genus* of the thing defined, and the *specific difference*. The genus is a more general idea, comprehending other specieses besides that defined ; and therefore it is common to that species, and those other specieses falling under it. The specific difference is that which distinguishes the species defined from those other specieses ; and it is common to all the individuals falling under that species, as the genus is common to all the specieses comprehended under it. And the reason why all definitions must consist of a genus and a difference, has been already given in the preceding part of this volume. It is because we know nothing absolutely, but only relatively ; and the *intellect*, in forming its ideas, proceeds by observing what they have in common, and wherein they differ ; whereas, *sense* apprehends its objects directly and immediately, not by such circuit and collection. For example, when I see any particular object, such as a man, I perceive this object immediately and directly, by the sense of sight. But, if I would understand what

this object is, or, in other words, If I would make of it an object of intellect, I find, that I know nothing of what it is *absolutely* in itself, but only, what it is *relatively* to other things, and I compare it first with other animals that I have seen, such as, a dog or a horse, and I find, that it has many things in common with them; such as sensation, growth, nutrition, &c. Then, I compare it with other individuals, more resembling it still than those other animals, and I find, that, besides what it has in common with the other animals, it resembles them in rationality, and a certain figure of the body. What it has in common with all other animals, is called its *genus*. What it has in common only with those animals it most resembles, and which, at the same time, distinguishes it from the other animals, is its *specific difference*.

The genus must not only be a more general idea, comprehending under it the species, but it must be *essential*, that is, necessary to the species, without which it cannot exist; as, for example, *animal* is the genus of *man*. Now it is impossible to conceive a man, that is not an animal.

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Secondly, The genus in the definition, ought not only to be a more general idea, and above the species, but, it ought to be immediately above it. For there is, as I have likewise observed elsewhere, a progression upwards of genuses and specieses, till we come up to those highest genuses or categories, as they are called, where the progression ends. Thus, for example, the genus of animal is the $\tau\omicron$ $\mu\psi\upsilon\chi\omicron\tau$, or animated body; the genus of it is body; and again, the genus of body is substance, and there the progression ends, *substance* being one of the categories. Now, in defining man, we ought to mention the nearest genus, *animal*, not the remoter, such as *body*, or *substance*. For, if we were not to mention *animal* at all, but only *substance*, or *body*, the definition, would be evidently imperfect, because it would not let us know precisely of what nature man was. If again, besides *animal*, we should include in the definition those higher genuses, it would be giving many definitions, or at least parts of definitions, instead of one, and going beyond the thing defined, till at last, we should run our definition up into metaphysics.

The other part of the definition is the *difference*, which, joined with the genus, constitutes the species; and therefore, it is called the *specific difference*. Now it is here that the method of division takes place: For every genus may be divided, according to certain *differences*, constituting so many different specieses, under that genus. Thus, the genus *animal* may be divided, with respect to the mind, or internal principle, into *rational* and *irrational*; according to the constitution of the body, into *sanguineous* and *exsanguious*; according to the method of generation, into *oviparous* and *viviparous*; according to food or diet, into *carnivorous* and *granivorous*, and the like. If in this way a genus is properly divided, the whole extent of it is shewn, and all the several specieses under it properly ranked and classed. Of this, fine examples may be seen, in the *Sophista* and *Politicus* of Plato, and likewise in Mr Harris's dialogue upon Art, which is the best specimen of the antient dividing, or *diaeretic* manner, as they called it, that is to be found in any modern book, as far as I know*.

* See what I have further said upon this subject, in vol. 2. book. 3. p. 448. where I have shewn, that Bishop

Now, this difference, which thus divides the genus, and constitutes the species, ought to be some principal quality, such as is the foundation of all or most of the other remarkable qualities of the species. It ought also to be peculiar to that species, and not common to any other of the same genus. Now, the having or not having a *membrana nictitans*, or long or short arms, are specific differences of men, deficient in both these respects. For, in the first place, they are trivial qualities, which produce no remarkable effects in the animal. And, secondly, they are common to men and other animals, for hawks have likewise a *membrana nictitans*, and the simian tribe are distinguished by longer and shorter arms.

Another thing to be particularly observed concerning the specific difference, is, that it ought not only to be found in all and every one of the species, and in them only, but in every one at every time. This is the case of the other part which constitutes the definition, I mean the genus; for there is certainly no time, when any individual man is not an animal. And, I say, it is the same, with

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Bishop Wilkins has very successfully used this dividing method in framing his universal language.

respect to any proper specific difference, such as that of *rational* in man. But how is this to be understood? Must a man be always in the actual exercise of reason? That is certainly not the case. This specific difference, therefore, of *rational* does not consist in the energy or actual exercise of the faculty of reason. But does it consist in the possession of that faculty? Neither is this true; for, otherwise, a new-born infant would not be a man, for he certainly has neither the actual energy of reason, nor has he yet acquired the faculty. He has then no more than what I call the *capability*, that is, the capacity of acquiring the faculty. And, upon examination, we shall find it to be so not only in man, but in other animals, and likewise in vegetables, that they have not, upon their first appearance, those particular marks of difference which distinguish the species, but afterwards acquire them; yet, from the beginning, they are reckoned of the species, because they have the capability. And thus, it appears, that the actual possession of any quality is not necessary to characterize any species, but it is sufficient that the individual have the capacity of acquiring that quality, in order to be deno-

minated of that species of which such quality is a characteristical mark of difference.

One thing is to be observed concerning both the genus and the specific difference, that they consist not of two qualities only, but commonly of more; for, such is the variety of nature, that a combination of several qualities is required to distinguish the thing defined from other things. When that is the case, we may either make one most general quality the genus, and throw all the rest into the specific difference; or we may join one of the others to the most generic quality, and make these two together the genus, throwing the rest into the specific difference. Thus, in defining man, we may either make *animal* simply the genus, and all the other qualities we think proper to put into the definition the specific difference; or, what I should like better, we may consider *rational animal* as the nearer genus, and *animal* simply as the remoter, making the specific difference to consist of all the other qualities we add to the definition.

These are the rules of definition, such as they are laid down in the peripatetic school; and I think it is evident that they are founded in the nature of things. For the defi-

inition of a species must necessarily be taken from the individuals of that species. Now, as has been observed, we know nothing absolutely, and in itself; but only relatively, and by what it has in common with other things. And a definition, like every other idea, is what is *common* or general, not what is *singular*, or particular. But the definition cannot contain what the individual has in common with every thing. For, otherwise, it would be, instead of a definition, a long description, containing many things unnecessary and superfluous. It ought, therefore, only to contain what the individual has in common with those things which it resembles most. Now, every individual is most like to the other individuals of the same species. Next to these, it most resembles the individuals of other specieses, but which are of the same genus. Thus an individual man most resembles the other individuals of his own species; next to these, he is likest to the individuals of other specieses of the same genus, viz. *animal*. The definition, therefore, of man contains the qualities which he has in common with those of his own species; and likewise such as he has in common with the individuals of other specieses of the same genus. The last of these makes

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the *genus* of every definition. The other what is called the *specific difference*. And, by these two, the thing defined is sufficiently marked and distinguished from other things. Less would not be sufficient for that purpose. More would be superfluous.

Before I come to apply, more particularly, these general rules of definition to the definition of man, I will make some observations upon the method of defining and dividing animals in general *. They are divided, either into certain *genuses*, comprehending different *specieses*, or they are divided into *specieses* only, having under them nothing but individuals.

As to the first of these divisions, it is much followed by Linnæus, and his whole system of nature, with regard both to animals and vegetables, is founded upon it.

* It may be here observed, that things of our own making, such as our abstract notions, may be defined by the manner in which they are generated or produced. In this way, Euclid has defined a cone and a cylinder; and every geometrical figure might be defined in the same manner. These are the most perfect of all definitions, because they give us the constituent principles, and very essence of the thing. But, as we have not this knowledge of the works of nature, such as animals, we cannot define them otherwise than by what they have in common with one another, in the manner above mentioned.

exceedingly different from one another, and, among others, *man* and the *whale*. Now, though it be true, that man and the whale have *mammas* in common ; yet, as it is a property that does not appear at all to unite these two animals in one common nature, but as, on the contrary, they are quite different in figure, size, oeconomy, and manner of living, instinct, or disposition of mind, and even with respect to the element in which they live, it ought not to be made the characteristic of the genus ; nor can such divisions, in my opinion, contribute much to the advancement of knowledge. Of this kind also, I reckon that mark of distinction by which he has distinguished what he calls the Orang Outang from our species, or the *homo sapiens*, as he is pleased to call us, viz. the *membrana nictitans* above mentioned. And, in the same way, I consider the number of toes and fingers, whether they be three, four, or five ; what number of teeth the animal has ; whether he has horns upon his feet or not ; whether he has teats ; and whether the hairs of his tail cover it all, or only the point of it. Many of these things are properly enough, I think, called by Mr Buffon *parts excrescent*, or *supernumerary*, which may

not be intended by nature for any particular purpose, but are the necessary consequence of the general frame or constitution of the animal, which, no doubt, by Nature, is intended for a certain purpose, but of which those parts are no more than excrescent appendages. See Buffon, tom. 5. p. 103. *et seq.**

But, though I so far agree with Mr Buffon, I cannot go the length he does, of rejecting all division into classes or genuses; and, wherever I find several specieses of animals united in a quality which has a great influence upon their natures, I think it is very properly made a mark of separation of those animals from others, or, in other words, it is a proper characteristic of a genus. Thus, of the several divisions I gave

* By what I have said here of Linnæus's classes and orders, I would not be understood to mean, that they are altogether useless, and improper; I only say, they are not scientific; and I am told, by those who have studied his system much more than I have done, that they are not given by him as natural and scientific divisions of animals, which ought certainly to be taken from the whole animal considered complexly, not from any particular part or property of it, but only, as artificial arrangements, which may be useful in teaching, by serving the purpose of a nomenclature or dictionary.

above of *animal*, taken from the internal principle, the constitution of the body, the method of procreating the species, or supporting the individual, as many different genera may be constituted, by which animals are divided into rational and irrational, sanguineous and exsanguineous, oviparous and viviparous, frugivorous and carnivorous; these being qualities common to many different species of animals, and such as distinguish them essentially from one another. Again, some animals can only live in the element of air, others only in the element of water, and some in both. This undoubtedly makes a great difference, not only as to the outward figure and the inward organization, but also with respect to the whole oeconomy or manner of life. Therefore, I think, animals are very properly divided into terrestrial, aquatic, and amphibious: And, in the definition of an animal, any one of these classes may very properly be made the genus. Mr Buffon himself, though he doth not any where formally admit of this division, yet he frequently supposes it, as when he says that the seal, and another animal which he names, are the only animals that are properly amphibious. And, indeed, it is al-

most impossible to treat of animals without making this division of them.

Again, of the terrestrial animals, some fly, others only walk on the earth. This difference must certainly produce a great difference in the formation of those animals, in their oeconomy, and their instinct; and, therefore, I think, that of this subdivision of the genus of terrestrial animals may be properly made two other genuses, the *volatile* and the *ambulatory*, as they may be called.

The division also above mentioned, taken from Aristotle, of animals, into gregarious, solitary, and mixed, is of a kind that very properly distinguishes animals into different classes, of different natures and instincts; and therefore, they are fitly made so many genuses. And, without giving more instances, I think I may conclude, that the general rule of definition which directs that the genus should be made a part of every definition, will apply to animals as well as to other things; and that, therefore, Buffon is mistaken when he rejects this rule in his Natural History, and that he had done much better to have followed, if not the divisions and arrangements of Linnaeus, those of A-

ristotle*, which, I believe, will be found, upon careful examination, to be the best that have hitherto been discovered. This much, at least, is certain, that no philosopher we know of, ever studied method and arrangement so much as Aristotle, or has explained so well the nature of definition and division.

The opinion of Mr Buffon is as singular, with respect to the species of animals. He says, that the only thing that discriminates specieses is the individuals engendering to-

* It has been observed by many moderns, that the ancient philosophy, and particularly their philosophy of nature, is too abstract and metaphysical, not sufficiently founded upon experience and observation. But, whoever reads Aristotle's history of animals with proper attention, will find there, a collection of facts and observations, such as is really surprising, and could not have been the fruit of the labour of one man, but of thousands, employed by his pupil Alexander, to collect for him materials of natural knowledge, from all the parts of the world then known. But the digesting and arranging them was left to the philosopher, for which he was rewarded by Alexander, with no less sum, it is said, than eight hundred talents. This monument of his love of learning, and munificence to the learned, has outlived almost all the other monuments of this conqueror; and, as it has been more useful to posterity, so, it ought to give him more lasting fame, than all his other great actions put together.

gether, and the offspring of such copulation engendering likewise*. In this way, it cannot be determined, that any two animals of the same species till the third generation so that our knowledge, in this respect, must depend upon a fact which, in all cases, requires a considerable time; and, in many cases, may be very difficult, if not impossible, to be ascertained. According to the rule, indeed, we have not experience or observation sufficient to determine that the orang Outang is of our species. For, though we know, certainly, that he copulates with our females, and though there be the greatest reason to believe, that there is offspring of such copulation †, we have no facts which we can be assured that this offspring will not, like the mule, be barren and unfruitful. But, let us inquire, whether the new discovery of Mr Buffon's be well founded, or whether nature has not furnished the marks, by which we may determine

* Vol. 4. p. 384 *et seq.*

† Keoping, the Swedish traveller above quoted relates, that he himself saw the offspring of a woman and an Orang Outang, which having in it all the vigour of a wild race, immediately, when it was born, began to crawl about, and to climb upon every thing.

with as great certainty as can be required in natural things, whether two animals be of the same species, without waiting the issue of experience and observation, which, in many cases, may be impracticable.

So far I agree with Mr Buffon, that, tho' two animals engender together, yet, if the offspring do not likewise engender, it is proof negative that those two animals are not of the same species. But is there no other proof of animals being of different specieses? Suppose two animals quite unlike one another in outward shape, inward structure, and likewise instinct, or natural disposition of mind, might we not conclude, with great assurance of not being mistaken, that these two animals would either not copulate, or that, if they did, their offspring would not produce? I think we might, for this plain reason, that animals coming together in the way of copulation, and producing an offspring which is likewise productive of its like, must depend upon a similarity of configuration of the parts external and internal, and likewise of the natural habits and dispositions of the animal; so that, where such similarity is not to be found, we may conclude that the animals are not of the same species. And, on

the other hand, where such similarity is perceived, we may, with equal certainty, conclude, that the animals are of the same species. For it is evident, that this property of producing and reproducing must depend upon certain qualities of body and mind; and must be the result of one or other, or all of the three things I have mentioned, viz. the external form, the inward structure, or the habits and dispositions of the mind.

As to the external form, though it be true what Buffon says, that it is to be considered only as drapery, and that the internal form is the real figure of the animal, and is that which chiefly makes the differences among animals *; yet I think it must be admitted that this *natural dress* of the animal is at least a sign of the inward configuration; nor do I believe any one instance can be given, where this sign is so deceitful, that, though the outward appearance be exactly the same, yet the inward is quite different, and the animals of different species. The similarity, therefore, of the outward form is the first rule that I lay down

* Vol. 13. p. 37.

for ascertaining the identity of the species.

But let us suppose, that nature may have deceived us by this mark, and that there are creatures which perfectly resemble one another in outward shape, yet are not of the same species, what shall we say of the case, where both the outward and inward configuration are exactly the same, or no more difference to be found, than is to be found betwixt individuals confessedly of the same species? for the variety of nature is such, that no two individuals of the same species are exactly like one another, not even two leaves of the same tree; I ask whether, in all the variety of nature, there be found one example of two animals resembling each other so perfectly, and yet different in species?

But, further, let us suppose likewise a resemblance, not only in the corporeal form, inward and outward, but likewise of the inward principle, which directs the motions and actions of the animal, and is the source of all its sentiments, inclinations, and affections; I ask whether it would not be a prodigy of nature, if, with this triple conformi-

ty of outward shape, inward organization, and the natural habits and dispositions of the mind, two animals should be found different in species? If it were otherwise, there would, indeed, be an end of all *specific difference* with respect to animals, and there would be no discrimination of their specieses, except by a fact requiring so much time and observation to verify, that, in many cases, we could not determine whether the animals were of the same species or not.

In this manner, I have endeavoured to lay down the general rules of definition. I have also applied those rules to the definition of animals in general, and have shewn that all animals must be defined by one or other, or all of the three things above mentioned, viz. the outward shape, the inward configuration, or the natural habit or disposition of the mind. And I come now to apply these general rules to the definition of man.

The Peripatetic definition of man is, a *rational animal, mortal, capable of intellect and science* *. The genus of this definition may

* Ζῷον λογικόν, θνητόν, γού καί επιστήμης δίκτατον.

be considered not as *animal* simply, but *rational animal*, that is to say, as I have elsewhere explained it, that kind of animals that have the comparative faculty, by which they compare things together, deliberate and resolve, such as horse, dog, elephant, and other animals of the better sort; and this I hold to be the proper sense of the Greek word λογικον. And, it is in this sense, that the Pythagoreans and other philosophers of Greece must be understood, when they maintain that animals, having sense and memory, are rational *. The specific difference may consist, as I have observed, of more than one thing. And, here, it consists of two, viz. *mortal*, by which man is distinguished from other intelligences that are immortal; and the *capability of intellect and science*, by which he is differenced from the brutes above mentioned, which, though they have the rational or comparative facul-

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* See Porphyr. *De abstin. lib. 3. c. 1. et 6. in fine.* The word *rational* in English, does not denote the comparative faculty only, as the word λογικον in Greek does, but it is used in a larger sense, so as to comprehend intellect; and, in this sense, I have frequently used the word in the course of this work.

ty, are not supposed capable of attaining to intellect and science. And, here, there is a difference in the expression worth remarking. He is said to be rational or logical; but he is said to be only capable of intellect or science *; yet, *rational*, as I have observed, does not denote the actual possession of the faculty, otherwise a new-born infant would not be a man; but only a natural aptitude to acquire it. But the difference, as I have elsewhere observed, lies in this, that the infant, when he grows up, must of necessity acquire this comparative faculty, for which he has only an *aptitude*, while he is so young, otherwise he would not be a man; whereas, intellect and science, he may never attain; and therefore the *capability* of these is all that is required to make him a man.

From the account I have given of this definition, it is evident, that it is taken chiefly from the internal principle of the animal. This, as I have observed, is principal in all animals, because it governs their motions and

* In order to have made the expressions similar, it should have run thus, in the Greek, ζων λογικον, ιερον, και πιστηματικον.

actions; and, as every animal is by nature destined for a certain course of action, and a certain oeconomy and manner of living, whatever prompts and directs him to that, must be accounted principal in his frame and constitution *. And if this holds in other animals, it does so in a particular manner in man, in whom the internal principle is so eminent, and of a nature so much superior, when it comes to be fully exerted, to the same principle in other animals. It is therefore, not without reason, that the philosophers of the Peripatetic school have chosen

* Aristotle, in the general division of animals, which he gives us, in the first chapter of his first book of natural history, says, that they are different with respect to their lives, actions, manners, and parts &c. *Αἱ δὲ διαφοραὶ τῶν ζῴων εἰσι κατὰ τὸν βίον, καὶ κατὰ τὰς πράξεις καὶ τὰ ἦθη, καὶ τὰ μέρη.* Now the three first he mentions, are, undoubtedly, the result of what I call the internal principle, which not only makes the temper and character of the animal, or the *manners*, as Aristotle calls it, but directs the oeconomy and whole manner of life; for which last purpose we must suppose even the parts of the body are framed. As, therefore, the internal principle is so predominant in the animal nature, Aristotle has given very great attention to it, bestowing a whole book upon it, and the longest book in the work, *viz. lib. 9.* And indeed he appears to me to make it the principal distinction of animals.

to take the definition of man from his mind; and there are other animals, which I think might not improperly be defined in the same way. The dog, for example, is not so much distinguished from either the fox or the wolf, though of a different species from them, by his outward or inward make, as by his disposition, humane, friendly, and affectionate*.

But, though man be thus properly defined from his better part, there is nothing to hinder us from taking into the definition, the form of the body, as some of the antients did. We may say, that he is a biped, or rather, as Aristotle has expressed it, more adapted by nature to walk erect than any o-

* He seems to be formed by nature, for a companion and friend to man; and Homer, I think, says, not improperly, that Telemachus was not alone, for he had two dogs with him. Buffon says, that we should not have been able to establish our empire over the other animals, if we had not divided them, and brought over to our party the dog, *vol. 5. p. 187.* who indeed has been a most faithful ally to us, and contributed more than any other to the destruction of his fellow brutes. He has also assisted us in destroying one another; for, in antient times, he was used in war by some nations, such as the Gauls and the Hyrcanians. *Strab. Geogr. lib. 4.—Ælian. lib. 7. c. 38.* To prove that he is not of the same species with either the wolf or the fox, Mr Buffon tried two experiments, which he has related, *ibid. p. 210. et 216.*

ther animal. We may add, that he is solid-footed, has broad nails, and teeth of a particular kind, betwixt those of the carnivorous and the granivorous animal. We may make also the description of his mind more complete, by mentioning in the definition, not only his rational and intellectual powers, but his mild, humane, docile, tractable disposition, capable of love and friendship, and the strongest attachments, with a sense of decency, honour, and justice. With these additions, I think no body will deny, that the Peripatetic definition of man would be complete. And the only question is, Whether the Orang Outang, from the facts stated concerning him in the preceding chapter, comes up to this definition?

And I think there can be little doubt of this, unless we be resolved, rather than disgrace our nature, as we imagine, by admitting the Orang Outang to a participation of it, to disbelieve what is attested not only by common travellers, but by philosophers and learned physicians: For he has not only the human form both inside and out, but he has the particulars above mentioned relating to the mind, or inward principle. He is

sagacious * beyond all the other animals inhabiting the woods ; he has a mildness and a gentleness in his nature, which is really wonderful in a wild animal, and would not be found in him, if he were an animal of prey, and subsisted upon flesh, not upon herbs and fruits : He is docile and tractable, imitating what he sees us do, not ridiculously as the monkey does, but with gravity and decency : He is capable of the greatest affection, not only to his brother Orang Outangs, but to such among us as use him kindly. And it is a fact, well attested to me by a gentleman who was an eye-witness of it, that an Orang Outang, which was on board his ship, conceived such an affection for the cook, that when, upon some occasion, he left the ship, to go ashore, the gentleman saw the Orang Outang shed tears in great abundance. And, *lastly*, the great Orang Ou-

* Under the *τα ηθη* or manners, Aristotle comprehends not only what is properly denoted by that word, viz. the dispositions or affections, but also the sagacity and understanding of man, as appears from *c. 3. lib. 9.* of his natural history, where he says, *Τα δι ηθη των ζων, ουκ εστιν ομοιοτητα, πατα τι διελικει, και πρωσοτητα, και ανδρικη, και ημεροτητα, και ρουη, και ανουη.* So that what Aristotle calls the *manners* of animals, comes precisely to what I call their *internal principle*.

tang carries off boys and girls to make slaves of them, which not only shews him, in my apprehension, to be a man *, but proves, that he lives in society, and must have made some progress in the arts of civil life; for we hear of no nations altogether barbarous who use slaves.

But still it is true what Bontius has observed in the passage above quoted, that he wants the faculty of speech belonging to man; at least, this is the case of the Orang Outangs of Africa and India; and, if it could be proved that speech was natural to man, the objection would be invincible: But I think I have proved the direct contrary; and have shown evidently, by arguments, both *a priori* and *a posteriori*, that there is no natural language belonging to man, except what belongs to other animals; and all that can be truly said of man is, that he has the capacity of acquiring the faculty of speech, as well as many other faculties,

* It is given by Mr Buffon, as a certain proof of *humanity*, and a distinguishing mark of difference betwixt us and the brutes— ‘ car nous ne voyons pas que les animaux, qui sont plus forts et plus adroits, commandent aux autres, et les fassent servir à leur usage;’ *vol. 1. p. 160.*

which he has added to his nature. If, therefore, any thing concerning speech were to be added to the definition of man, it should be mentioned in the same way as *intellect* and *science* are in the Peripatetic definition; and we should say, that man is an animal *capable of speech*. Now, that the Orang Outang has this capacity, we cannot reasonably doubt, when we see, that he has the capacity of being a musician, and has actually learned to play upon the pipe and harp, a fact attested, not by a common traveller, but by a man of science, Mr Peiresc, and who relates it not as a hearsay, but as a fact consisting with his own knowledge. And this is the more to be attended to, as it shows, that the Orang Outang has a perception of numbers, measure, and melody, which has always been accounted peculiar to our species. But the learning to speak, as well as the learning music, must depend upon particular circumstances; and it shall be shewn, in the sequel, that men, living as the Orang Outangs do, upon the natural fruits of the earth, with few or no arts, are not in a situation that is proper for the invention of language. The Orang Outangs, who played upon the pipe, had certainly not invent-

ed this art in the woods; but they had learned it from the negroes or the Europeans; and that they had not at the same time learned to speak, may be accounted for in one or other of two ways;—either the same pains had not been taken to teach them articulation; or, secondly, music is more natural to man, and more easily acquired than even speech, and was probably, as shall be afterwards shewn, first learned by them.

The objection, therefore, when thoroughly examined, comes to this, that the Orang Outang has not yet learned the several arts that we practise; and among others which he has not acquired, is that of Language. If, on this account, the Orang Outang be not a man, then those philosophers of Europe, who, about the time of the discovery of America, maintained, that the inhabitants of that part of the world were not men, reasoned well; for, certainly, the Americans had not then, nor have they yet, learned all the arts of which their nature is capable. But I think the Pope, by his bull, decided the controversy well, when he gave it in favour of the humanity of the poor Americans: And, for the same reason, we ought to decide, that the Orang Outangs are men. And, indeed, it appears

to me, that they are not so much inferior to the Americans in civility and cultivation, as some nations of America were to us, when we first discovered that country.

It is, however, true, that the Orang Outang, particularly the Pongo, or great one, is an animal very different in many respects from us, both in body and mind; and if this difference could not be accounted for, he might, with some reason, be reckoned an animal of a different species. But I think it is easily to be accounted for from the change which culture and civilization makes upon all animals.

That this change must be very great will be evident, if we compare the natural state of animals with their tame domestic life. In the natural state, the animal lives in the open air, provides for himself subsistence, which is either the natural fruits of the earth, or the flesh of other animals, if he be an animal of prey; and has no more than suffices nature, often less. On the other hand, the tame domesticated animal lives under cover, close and warm, and often with the addition of the unnatural heat of fire. His food is the artificial fruits of the earth, or flesh, both very often prepared by fire. And many of them

are fed in this manner, without any labour or care taken by them to provide it. Such a total change of the whole oeconomy and manner of life must of necessity make a great change, one way or another, upon the animal, both with respect to the body, and to the character and temper of the mind.

Nor is this mere theory and speculation ; for it is a certain fact, that some animals have been so changed, by being domesticated and educated by man, that the original and natural animal is hardly to be found out. Of this kind, the dog is a remarkable example. For he has been so much *handed*, as Buffon expresses it, by men, that, if the fox is not the original wild dog, which Mr Buffon asserts he is not, and I think has given very good reasons for his assertion, it is altogether uncertain where he is to be found ; for those dogs that run wild in America are certainly not original in that country, but the offspring of tame dogs that have been brought from Europe. Then, there is that common animal the hen, which is so much altered by the tame housed-life, that we cannot certainly know from what original stock she came, whether from the partridge, the common muir-fowl, or grouse, as they call them,

the black-cock or heath-fowl, or, what I think more probable, is the offspring of some foreign bird that has been imported to this country ; which, I believe, is likewise the case of our tame ducks and geese.

But, even where the animal is not so much changed, by being under our care, as not to be knowable in his original state, still the change is very great. The first example I shall give is of the hog, who is undoubtedly of the same species with the wild hog, an animal very well known on the continent. But those that are wild differ much in colour and shape from the tame, and likewise in size, the wild, particularly the males of them, being much larger, stronger, and fiercer than the tame. The instinct too of the wild is different from that of the tame, particularly in this, that the wild boar is a solitary animal, as soon as he grows up, and can live alone, and defend himself against the wolf *. Whereas, the tame kind always chuse to herd ; and particularly at night, when they sleep, they have the closest society perhaps of any animal known.

* Buffon, vol. 5. p. 110.

The wild cat too is very different from the tame, particularly in the size; for the wild is much bigger, stronger, and fiercer.

The bullock too, in his natural state, appears to be a much larger animal than the tame; for there have been found, in some lochs of Scotland, heads of bullocks of monstrous size, and which, there is all the reason in the world to believe, were the heads of wild bullocks inhabiting the woods, before Scotland was cultivated and peopled as it is now. And I hold it to be a general rule, which, for what I know, does not suffer any exception, that every animal, in the natural state, and in a country and climate which are natural to them, provided only they have nourishment sufficient, is larger and stronger than the same animal tamed and housed. Even in Lapland, where one should think the animals would stand more in need of man, and his arts, than in milder climates, it is a certain fact that the wild rein-deer are larger than the tame*. And the reason I think is obvious, which is no other than this, that every animal must thrive best in that state

* See the account of Lapland, lately published by Leemius, a Danish missionary in that country.

in which it is placed by God and nature. Nor can any alterations of that state be made by human art, without the animal being impaired in size, health of body, strength, and longevity. Now, the change we have made in the natural state of the animals that we have tamed, and made subservient to our use, is very great : For, besides, the change of diet, and manner of life in the particulars above mentioned, besides the ill usage which they commonly suffer from us, we make them propagate in an unnatural manner, which, in the course of many generations, must certainly impair the vigour of the race. In all specieses of animals, there is reason to believe that nature has produced as many males as females : Accordingly, many animals pair ; all those, I am persuaded, whose oeconomy makes it necessary, that both parents should join in rearing the offspring, which is the case of most, if not of all the oviparous. And, among those animals that do not pair, such as oxen and horses, where the mother alone can rear the offspring, and provide for it, till it be able to provide for itself, though the stronger and fiercer male will no doubt have the use of the greater number of females ; yet one of

those males in the natural state, will not serve so many females, as we make him serve in the domesticated state; and the females likewise, by being housed and pampered, breed oftener, and produce more at a time, than they do in the natural state. This at least is the case of the animal above mentioned, the hog. For the wild sow breeds only once a year; whereas, the tame commonly breeds twice a year, *. Nor does the wild produce so many at a litter; for she never exceeds, as I am informed, five or six; whereas, the tame produces sometimes to the number of eighteen, tho' she have but fourteen teats; but, for this, Mr Buffon ought not to accuse nature of any defect or imperfection. Now, it is certain, that the female by breeding, as well as the male by begetting, more than nature intended, will not only be weakened themselves, but their race will be impaired; especially if they begin to breed too soon, which is the case of all the animals that are housed and pampered. For that unnatural diet and warmth brings on a pre-

* Buffon, tom. 5. p. 115.

mature puberty; than which, nothing contributes more to weaken the race, as is well known to all breeders. And we also hurt the young animals, by either taking them altogether from the mother, and so bringing them up in an unnatural way, or by taking them away sooner than ought to be done.

Further, not only are animals so much altered by culture and art, but likewise vegetables; so that many of them also are hardly to be found in the natural state. Flowers, particularly, have in this way undergone a remarkable change; for, of them, nature has produced only single-leaved flowers, at least this is the general rule, to which I believe there are very few exceptions; but, by our art, we have doubled, tripled, or quadrupled the flower-leaves; in short, multiplied them so much, that the plant becomes altogether unfruitful, and loses that natural faculty of reproducing itself, and so continuing its species, which is common to all animals and vegetables. Of fruits, such as pears and apples, we have made new specieses, or, at least, great variations of the same species; and one class of plants, the most useful to us of all, we have

cultivated so much, that the origin of it is as much hidden, as the fountain of the Nile was of old. The plant I mean is *corn*; of which, tho' there be several specieses, I do not know, that we have discovered with any certainty the original plant of any of them. Linnæus thinks, that he has found out the native country of summer-wheat, which he seems to think a grain different from winter-wheat; Buffon is of opinion, that corn is originally nothing else but some barren grass of the meadow, which the art of man, by reiterated culture, has transformed into a fruitful plant, the chief support of life in this part of the world *; and he thinks, that, by being often sown in uncultivated ground, it might be brought back again to the original barren plant †.

* Buffon tom. 5. p. 195.

† Ibid p. 196.—Tho' I be persuaded, that this plant is very much altered by culture, I can hardly believe that it is so much altered as Mr Buffon says. At the same time, I do not know upon what authority Linnaeus has said, that a species of wild wheat is to be found *apud Baschiros in campis Heintzelman*; *Linnæi species plantar.* 126. But the best authenticated account I have found of the original plant, of one species of corn, is in an author whom I shall have occasion to quote often in the sequel,

If, therefore, both animals and vegetables, are so much changed by culture and art, what must be the case of man, who has certainly cultivated himself more, and been more the subject of his own art, than any other animal, or any plant, and through a longer course of time? For man must have first cultivated himself, before he could cultivate any thing else. Is it then a wonder, that this man of nature, the Orang Outang, should be so different from us? Or, is it not rather a wonder, that we should find in him any of our own features? Yet the fact truly is, that the man is easily distinguishable in him; nor are there any differences betwixt him and us, but what may be accounted for in so satisfactory a manner, that it would be extraordinary and unnatural, if they were not to be found. His

Gabriel Sagard's travels into the country of the Hurons, in North America. It is well known, that none of the Hurons, nor any of the North Americans, cultivate any grain except Indian corn. Yet, in that country, Sagard says he saw a field, which appeared to him at a distance to be a field of wheat; but, upon looking nearer to it, he found that the ear was like rye, and the grain like oats. He says also, that he saw there likewise wild peas, so thick, that he should have thought they had been sown;
p. 114.

body, which is of the same shape with ours, is bigger and stronger than ours, at least in the large kind, (for there is among them variety of sizes, as well as among us), according to that general law of nature above observed. His mind is such as that of a man must be, uncultivated by arts and sciences, and living wild in the woods. And particularly, with respect to language, if, in such a state, they had had the use of speech, it would have proved, either that language is natural to man, the contrary of which I think I have already demonstrated, or that it is of easy invention, and not the artificial thing which, in the sequel, I hope I shall prove it to be.

The only thing that remains to be accounted for is, how it comes to pass that the Orang Outangs, if they be truly men, are in a state so different from the rest of their species? The same question may be asked concerning the savages on the river Gaboon, in the same country of Africa; and likewise concerning the several savages that have been found in different parts of Europe at different times. But, suppose we could give no answer to these questions, it would be no-

thing extraordinary, as there are certainly many facts relating to man, as well as to other animals, for which we cannot account; but it would be arrogance and presumption, therefore, to disbelieve them. That men, without the use of speech, should be found in the midst of the civilized nations of Europe, is much more incredible than that such men should be found in Africa, a country which we are sure in all times has abounded with wild men. In the inland part of that great continent, arts and civility appear to have made less progress than any where else, perhaps, on the face of the earth, because there has been no intercourse betwixt it and other parts of the world; and, if it were well searched, I have no doubt, that many strange animals would be found in it, and, among others, man in his natural state. From thence, in all probability, both the woolly haired savage of the Gaboon river, and the Orang Outangs have migrated down towards the coast *, and so have been discovered by the

* Dr Greenhill, from whom I got my information concerning those savages of the Gaboon river, says, that they see, almost every week, upon that coast, animals that they never saw before, which had come from the inland country.

more civilized inhabitants there, and by the Europeans, with neither of whom they have mixed, for several good reasons that might be given ; and, therefore, have not learned language, nor any other of their arts. One thing at least is certain, that, if ever men were in that state which I call natural, it must have been in such a country and climate as Africa, where they could live without art upon the natural fruits of the earth. Such countries, Linnaeus says, are the native country of man. There he lives naturally; in other countries, *non nisi coacte*, that is, by force of art. If this be so, then the short history of man is, that the race having begun in those fine climates, and having, as is natural, multiplied there so much that the spontaneous productions of the earth could not support them, they migrated into other countries, where they were obliged to invent arts for their subsistence, and, with such arts, language, in process of time, would necessarily come.

I have dwelt thus long upon the Orang Outang, because, if I make him out to be a man, I prove, by fact as well as argument, this fundamental proposition, upon which

— my whole theory hangs, That language is not natural to man. And, *secondly*, I likewise prove that the natural state of man, such as I suppose it, is not a mere hypothesis, but a state which at present actually exists. That my facts and arguments are so convincing as to leave no doubt of the humanity of the Orang Outang, I will not take upon me to say; but thus much I will venture to affirm, that I have said enough to make the philosopher consider it as problematical, and a subject deserving to be inquired into *. For, as to the vulgar, I can never expect that they should acknowledge any relation to those inhabitants of the woods of Angola; but that they should continue, thro' a false pride, to think highly derogatory from human nature, what the philosopher, on the contrary, will think the greatest praise of man, that, from the savage state,

* I am glad to hear, that there is a gentleman to be sent out, by some curious persons in London, to travel in Africa, in order to inquire about the Orang Outang, and other curiosities in that country. And there is one traveller, who has already been there, and who is now upon his way home, from whom we may expect to hear of this, and other wild men in that country.

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in which the Orang Outang lives, he should, by his own sagacity and industry, have arrived at the state in which we now see him.

C H A P. VI.

Of the Progress of civil Society.—That this Progress shews it is not from Nature.

WHAT I have said of the Orang Outang, in the two preceding chapters, will not, it is hoped, appear foreign to the subject we are now upon, which is to shew that there has been a beginning of society as well as of language. The Orang Outang is, if not in the beginning, at least in one of the first stages of society, and in the progress towards a more civilized state. Now, wherever there is a progress, there must be a beginning; and, from what I have related of the Orang Outang, and other barbarous nations, compared with the state of people more civilized, it is evident that there is a progress in *civil* society, at least, such as

is not to be found in natural things, but only in things of human institution.⁷ For, first, we see men living together in herds, like cattle or horses, without even coupling together, or pairing, as we see the males and females of certain other species do; but, nevertheless, carrying on some common business, such as fishing or hunting, or whatever else may be necessary for their sustenance, though without any thing that can be called government or rule; and of this kind are the instances that I have quoted from Diodorus Siculus, Herodotus, and modern travellers. Next, we see them submitting to government, but only upon certain occasions; and particularly for the purpose of self-defence: In which case, it has been observed, that other animals, such as sheep and horses, who are not by nature political, institute a kind of regimen and discipline; but which appears to last no longer than the danger. Under this kind of occasional government, certain inhabitants of the Caribbee islands were, when we first discovered those islands. They had chiefs and generals in time of war; but, in time of peace, they lived under no government at all*.

* See Labat's account of those islands,

The next stage of civil society I shall observe, is that of the Indians of North America, who have a government in time of peace as well as war, and may be said to form a state. This government is administered by their sachems, or old men, who meet together in council to deliberate upon public matters ; and to their determinations in such matters the young men submit ; but without any compulsion or punishment, if they are refractory. But, in other matters, every man is his own master, subject to no controul, not even that of his parents. For, though they have all separate and distinct families, there is no domestic government among them ; neither have they any laws or judges : So that every man defends his own rights, and revenges the injuries done to him.

A stricter and more regular form of government obtains in the several countries of Europe, which is administered by certain magistrates, known under different names in different countries, according to certain rules and regulations, to which every member of the state is obliged to submit, under certain pains and penalties. For the great difference betwixt this government and the last mentioned, is the power of punishment

which the magistrate assumes, not only for offences against the state, but for injuries done to any member of it, who is not allowed to be judge in his own cause, but must apply to the magistrate for redress; and he also determines every question concerning right or property among the citizens, according to established rules. But the private lives of the subjects under those governments are left as much to the free will of each individual, and as little subjected to rule, as in the American governments above mentioned: And every man in such a state may, with impunity, educate his children in the worst manner possible, and may abuse his own person and fortune as much as he pleases, provided he does no injury to his neighbours, nor attempts any thing against the state.

The last stage of civil society, in which the progression ends, is that most perfect form of polity, which, to all the advantages of the governments last mentioned, joins the care of the education of youth, and likewise regulates the private lives of the citizens; neither of these being left to the will and pleasure of each individual; but both directed by public wisdom. Such was the government

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of antient Sparta, and such were all the plans of government devised by Plato and other philosophers.

Nor do societies differ less in their size and extent, than in their nature and institutions. Some of the earliest societies of which we have any record, consisted only of single families. The family of Jacob made a society by themselves. The Cyclops, as Homer tells us, a barbarous people of those times, lived in that way. And Mr Frezier, in his voyage to the South sea, informs us, that a great part of the inhabitants of Chili live in the same manner at this day. Some of those families produced out of themselves, without any foreign mixture, great nations. This was the case of the family of Jacob. But most nations have been formed by the association of several families; not, however, a great number at first. For the Indian nations of North America consisted originally of no more than three families, which are yet preserved among them distinct; and there is always one of them that is accounted more honourable than either of the other two*. The Roman

* Whether this particular be mentioned in any printed account of North America, I do not know; but I have it from the French Jesuite I mentioned above, whom

state, in like manner, consisted originally of associated families; a clear proof of which is, that, even in the civil state, the antient family-government among them was preserved in its full rigour, insomuch, that the father had power of life and death over his children. From such small beginnings, nations have grown to the size of which we now see them; and the whole history of mankind is nothing but a narrative of the growth of families into nations, of small nations into great, and of great nations into mighty empires. These at last become too great, and fall by their own weight. But they are never broken into such small pieces as those of which they were originally constituted: For I doubt it is a mistake to suppose, as some do, that there is a perpetual revolution and circle in human affairs. So far from that, it appears to me, that men are still going farther and farther off, not from the state of nature only, but from the original constitution of society.

This progress in civil society, and the many changes and revolutions it is subject

I reckon a better authority in what relates to the Indians of that country than any thing we have printed.

to, plainly shew, that it is not from nature, but of human institution. For *nature* is permanent and unchangeable, like its *author*: And, accordingly, the wild animals, who are undoubtedly in a state of nature, still preserve the same oeconomy and manner of life with no variation, except such as change of circumstances may make absolutely necessary for the preservation of the individual or the species; and the variation goes no farther than that necessity requires.

C H A P. VII.

Authorities in support of this Opinion concerning the natural State of Man, from antient Philosophers and Historians, from Fathers of the Church, and modern Divines.

THUS I have endeavoured to prove, both by facts and argument, that the political state among men is not from nature, but from institution, and that man, in his natural statute, is a wild animal, without language or arts of any kind. I should now proceed to assign the causes that gave rise to civil so-

ciety : But, before I do this, as I know my opinion concerning the natural state of man will appear to many very extraordinary, I will endeavour to support it by authorities likewise ; first premising, that I would be understood to speak only of his present nature, and of his present state of existence, not of any former more perfect state. For, as I have observed elsewhere, both religion and philosophy teach us, that man did once exist in a more perfect state.

And I will begin with the authority of Horace, which is clear and decisive in the case, as appears from the passage which I have made the motto of my book, and which I shall explain more particularly afterwards. And the greater regard is to be had to his authority, that he was not only one of the best poets the Romans ever had, but a very good philosopher; and he was of that sect of philosophy among the antients, which, of all others, attended most to facts and observations: Whereas, the other antient philosophers dealt more in theory and speculation, than in facts*.

* It was a great saying of Epicurus—*οὐ μάλιστα τοῖς φαινομένοις*—And the philosophers of that school may be said to have begun the experimental philosophy.

The next authority that I shall mention is that of another poet, and a philosopher too of the same school, I mean Lucretius, who, in his fifth book, *v. 923. et seq.* describes the primitive state of our race very accurately, and like a philosopher, who had inquired much into facts. After telling how we lived in the woods and mountains, without the use of fire, he adds,

Nec commune bonum poterant spectare, neque ullis
Moribus inter se scibant, nec legibus uti.
Quod quoque obtulerat praedae fortuna, ferebat,
Sponte sua, sibi quisque valere et vivere doctus.

After which, he proceeds to relate how men associated together, which he ascribes chiefly to the fear of wild beasts, and how they built huts, discovered the use of fire, and reared families. Even that way, says our author, the race would not have lasted.

At varios linguae fonitus natura subegit
Mittere, et utilitas expressit nomina rerum.

So that, according to Lucretius, language was invented by men, after they had associated together, and made some progress in civility.

The next authority I shall quote is still a more respectable one. It is that of Plato. He, in his first book of laws, has spoken much of the renovation of arts, after nations had been destroyed by such calamities as I have mentioned in the beginning of this book. He does not indeed reckon language among those new-invented arts; but, that he did not think language natural to man is evident from this, that he has expressly said, that ideas are not natural to man. The passage I allude to is in the Theætetus; the words of which I have given at the bottom of the page*. In order to understand it perfectly, we are to consider that he had been speaking immediately before of the general ideas of substance, existence, difference, likeness, &c.; which ideas, says he, the mind forms by going over and comparing things together. Then follows the passage quoted; the sense of which is, 'That whatever comes to

* Οὐκ οὐν τα μὲν ἴσους γεωμετρίας παρῆσσι φύσει αἰσθητὰ ὄντα ἀνθρώποις τε καὶ θεοῖσι, ἴσα δὲ τοῦ (ἀμάρως παθημάτων ἐπιτην ψυχῇ) τείνει· τα δὲ περὶ τούτων αἰαλοσιγματικά πρὸς τὴ συνίστανται καὶ ἀφιλεῖσθαι, μοῖσις καὶ ἐν χροῶσι δια πολλῶν πραγμάτων καὶ παιδείας παραγιγνῆσθαι, οἷς αὖ καὶ παραγιγνῆσθαι. *Tom. I. p. 186. edit. Serrani.*

‘ the mind through impressions made upon
 ‘ the body is by nature perceived, both by
 ‘ men and brutes, immediately upon their
 ‘ birth. But the ideas resulting from the
 ‘ comparison of those perceptions, (*πρὸς ταύτων*
 ‘ *ἀναλοῖσιν*) relating to their nature and use,
 ‘ come with difficulty, and only in process
 ‘ of time, to those who attain to them, and
 ‘ are the fruit of much labour and instruc-
 ‘ tion.’ If this be the sense of Plato’s words,
 as I think it certainly is, he could not have
 used clearer to express my notion, *That the*
perceptions of sense are from nature, but the
ideas formed from those perceptions are acquir-
ed, not without much labour.

Another proof of Plato’s opinion being
 the same with mine concerning the natural
 state of man, is what he says of men having
 learned to number from observing the rising
 and setting of the sun, the succession of day
 and night, and months and years*. There
 was then a time, according to Plato, when
 men could not count one, two, three; and,
 if so, there must have been a time, when
 they were altogether without arts or civili-

* *Epinomis*, p. 1007. *Timæus*, p. 1058. *edit. Ficini*

ty. For the use of numbers is the foundation of all the arts of life ; nor can we conceive men carrying on any kind of business without the practice of arithmetic in some degree. It is therefore certainly true, what Plato has elsewhere said, that, without the use of numbers, we have no knowledge at all †; and, in reality, we are no better than the brutes. Accordingly, the most barbarous nations, as we shall see afterwards, have the use of numbers.

These authorities from Plato I lay the more weight upon, that he is as far as any philosopher from degrading or vilifying our species, but, on the contrary, appears to have the highest idea of the dignity of human nature.

My next authority is one that I have already quoted, that of an historian, highly esteemed by all men of learning, who has written an universal history, which may be considered as the history of man, I mean Diodorus Siculus. He says, in so many words ‡, ‘ that men lived at first

† *Epinom.* p. 1005. *et seq.*

‡ The words of Diodorus are: Τους δι εξ αρχης γνησθεις ταις αθηραιων φανιν . εν απλη και θηριουδει βιω καθισθεις, προσηθη επι τας νομας εξισται, και προσηρισθαι της τε

‘ dispersed, and subsisted upon the natural
 ‘ productions of the earth : That they had
 ‘ no use of speech, and uttered only inarti-
 ‘ culate cries ; but, having herded together
 ‘ for fear of the wild beasts, they invented
 ‘ a language, and imposed names upon
 ‘ things.’

There can be no authority more express than this ; and I shall add only one more, though there be others, from a respectable author likewise, who was not only the greatest orator the Romans ever had, but their greatest philosopher, at least, the greatest writer of philosophy among them. By this description nobody can doubt that I mean Cicero. He has said expressly, that men originally lived after the manner of beasts, without reason, religion, or civility *.

Βότταις την προσηγορίαν και τας αὐτομαίους ἀπο τῶν δειδῶν
 παρῆς. και πολεμομεινυς μιν ὑπο τῶν θηριῶν, ἀλλήλους βε-
 ηθῶν ὑπο τοῦ Συμφεροντος διδασκομεινους, ἀρροϊζομεινους δὲ δια
 τῶν φόβου, ἐπιγινωσκεν ἐκ τοῦ καίῳ μικροῦ τούς ἀλλήλων τυ-
 πους (αἱ. τοπου). Της Φαιῆς δὲ κτημου και Συκκεχυμενη
 ουσης, ἐκ τοῦ καί' ὀλιγον διαβροῦν τας λιξεις, και προς ἀλλε-
 λους τιθειλας Συμβολα περὶ ἑκάστου τῶν ὑποκειμεινων, γιαρμειν
 Φρῖσην ἀνῶις ποιησαι τὴν περι παλιων ἱερμηνειαν. Lib. 1. § 8.

* Lib. 1. *Rhetoric. in initio.* His words: ‘ Fuit quod-
 ‘ dam tempus cum in agris homines passim, bestiarum

And, in another passage, speaking of the Eleusinian mysteries, he says it was by them that men were reclaimed from the brutish and savage life, and tamed and mitigated into humanity*.

This opinion, therefore, of mine may be false; but it is not new nor singular; and, being supported by such respectable authorities, I may say the concurring testimony of all antient authors who have treated the subject, is, I think, entitled to a fair and candid

‘more vagabantur, et sibi victu ferino vitam propagabant;
 ‘nec ratione animi quidquam, sed pleraque viribus corporis, administrabant. Nondum divinae religionis, non
 ‘humani officii ratio, colebatur,’ &c.

* *Nam mihi cum multa eximia divinaque videntur Athenae suae peperisse, atque in vita hominum attulisse, tum nihil melius illis mysteriis, QUIBUS, EX AGRESTI IMMANIQUE VITA, EXCULTI AD HUMANITATEM ET MITIGATI SUMUS. De. leg. lib. 2. cap. 14.* And, according to Dr Warburton's commentary upon this passage, the origin of society out of this brutish state, and the invention of arts, was one of the things revealed to the initiated in the mysteries. *Divine Legat. book 2. § 4. pag. 170.* According to the opinion, therefore, of this most learned author, in the account that I have given of the origin of human society and of *humanity* among men, I have broached no new doctrine, but only so far disclosed the mysteries of Ceres, into which indeed I have been initiated by the study of ancient authors, but never took any oath not to reveal them.

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examination, which, however, it cannot expect from vulgar prejudice, but only from men of liberal thought, and more than common learning; and it is for such only that I write.

To those authorities, in support of my opinion concerning the natural state of man, I will add others tending to shew, that my notion of language being invented, is not only the opinion of heathen philologists, poets, and historians, but of christian divines, both antient and modern. And I will begin with a holy Father of the church, renowned both for his piety and learning, and who, on account of his attachment to the catholic faith against the Arian heresy, suffered persecution under Valens, an emperor addicted to that heresy. I mean St Gregory bishop of Nyssa, who, in his orations against Eunomius, a great Arian heresiarch, expressly asserts in more than one place, that language is of human invention *.

A 2 4

* The passages I refer to are in the 12th oration against this Eunomius. In pag. 761. edit. Morelli, Paris. tom. 2. he has these words: 'Ἡμεῖς τε γὰρ φανερὸν ἐπισημαίνουσι τοῖς ὄντι τὰ γινώσκοντα τῶν ὄντων ὀνόματα διὰ τῆς ἀνθρωπίνης

This sentiment of Gregory, a learned French divine, Father Simon, in his critical history of the Old Testament, adopts, and

ειπαις. In another passage, pag. 780. he maintains that things indeed are the workmanship of God, but language of men.—Φυεται δε κατα το θειον βουλημα πραγμα, ουκ ουρα· ὅτι το μιν καθ' ὑποτάξειν ον πραγμα της του πτωχητος δυναμεις εἶναι, τας δι' ἡμερικας τω οντων φωνας, δι' ὃν τα καθ' ἑκαστον προς ακριβη τε και εσυχνοτι διδασκαλιαι επισημειουται ὁ λογος, ταυτα της λογικης δυναμεις εργα τε και εὑρηματα· αυτη δε ταυτην τιν λογικην δυναμιν τε και φυσικη, εργον Θεου. Και επιδη το λογικον εν πασιν ανθρωποις, αιτιατικως κατα τας του εἶναι διαφορας, και αι των ονοματων διαφοραι διακρυνται. From this last mentioned circumstance of the diversity of languages, he, in a following passage, pag. 781. infers that language cannot be from God. 'The nature of things, says he, 'is eternal and unchangeable, and affects our senses in 'the same manner. Thus, fire, water, and air have the 'same effects upon all men.—Οὕτως και ἡ των ονοματων θεισις, επειρ ην κ του Θεου τοις πραγμασιν εφημεσμενη, πασιν αν η αυτη ην. Νουτι δε των μιν πραγματων η φυσικη, ατε δε παρα του Θεου πτωχησις, μιναι ακινητος, αι δε ζηματικαι ταυτων φωναι προς ταυτας γλωσσων διαφορας διασχισθησαν, ὡς μηδι ακριβησασθαι το πληθος ευκολον ειναι. And he concludes the argument in this manner, pag. 792.—'Ὅτι μιναι παρ' ὃς ἡμιν ὁ λογος ὁ τας ανθρωπιναις φωναις της ἡμερικας δυναμεις εὑρηματα ειναι διοριζομενος· Ουτε γαρ εἰς ακριβη ὡς ομοφωνοι απαν ην εαυτην το ανθρωπινου, Θεου ῥηματων τινα διδασκαλιαν ηξειρησθαι τας ανθρωπιναις, παρ' ὃς τας γραφαις μιμηθηκαμεν· ουτε εἰς ποικιλαις γλωσσων διαφορας ἀκρίβησθησαν, ὡπως αν ἰσασθαι φησιν ὁ θειος επιστάτης κομος· αλλα θελησας ὁ Θεος τους ανθρωπους εν αλλαις γενεσθαι

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says, that necessity made men invent language; *lib. 1. cap. 15.*

I may appear too fond of great authorities, when I quote a most learned divine of high rank in the church, still living, I mean Dr Warburton, who has said expressly, that both writing and language were invented out of necessity, to communicate mens thoughts to one another; *Div. leg. book 4. sect. 4.* But, if I quote at all, I must quote fairly; and, therefore, I must do the Doctor the justice to say, that, in another passage of the same section, he says, as expressly, that God taught the first men language.

γλωσσαις, αφηκιν ὁδη την φυσιν πορευισθαι, κατα το αριστον διαβηρυσσαν παρ' ἑκαστοις τον ηχον προς την των ονοματων (αφητικων. And, in another passage, *pag. 790.* he treats it as a notion altogether ridiculous, that the power of God should shew itself in words and syllables, or that man by his natural faculties should not be able to invent them. To suppose this, he says, is to believe that God would act the part of a grammarian, and employ himself in teaching language, is Jewish folly, and much below the sublimity of the Christian theology, *pag. 779.* In short, he seems to think, with the poet, that

-----putare aliquem nomina distribuisse
Rebus, et inde homines didicisse vocabula prima,
Desperare est.

LUCRET.

Thus it appears that it is by no means an agreed point, even among those who are learned in the scripture, that language was revealed; but that, on the contrary, divines differ from one another, and sometimes the same divine from himself. I shall, therefore, I hope, be allowed, without the imputation of impiety, to suppose it at least possible, that language may have been invented; and I have said no more. I will only add, that those authors, who are of opinion that language was invented, I think I may set down as authorities likewise in support of my opinion, concerning the natural state of man. For it seems impossible that they could have conceived the state of man, before the invention of language, to have been different from what I have represented it to be.

I have seen a small treatise lately published in Glasgow under the title of ‘An Attempt to shew that the Knowledge of God has been, in all Ages, derived from Revelation or Tradition, not from Nature,’ in which a very different representation is gi-

I have quoted the above passages from St Gregory, to shew, that Photius judges well, when he commends not only the learning and piety of that author, but the elegance of his style.

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ven of human nature. According to this author, man, instead of being able to invent all the arts of life, and language among the rest, as I suppose, and to discover the great author of his being, could not, by his natural faculties, do so much as provide for his own subsistence; so that, not only language, but all the necessary arts of life, those by which we are fed, clothed, and lodged, weapons for defence, and perhaps, says he, the implements of husbandry, were all revealed to us, as well as the being of a God; p. 31. This system, by magnifying the necessity of revelation so much, may appear, at first sight, to be very pious, and I have charity enough for the author to believe that it was written with a pious intention. But, upon a thorough examination, it will, I am persuaded, appear to the judicious reader highly impious, as it overturns at once natural religion, which is the only foundation on which revealed can stand; and, with natural religion, human reason, and even that natural sagacity which God appears to have bestowed upon all animals, commonly known by the name of *instinct*, by which they are enabled to provide for their sustenance and defence. Now I think it is much more for the honour of

the Creator, as well as the creature, to suppose that man was at first created with powers sufficient to discover all that was necessary for human life, and even to investigate the great Author of his being, than to suppose him originally a mere puppet, moved and directed in every thing by the same power that made him,

Nervis ut mobile lignum.

Such an *automat* human art can produce; but a real animal, and especially an animal such as man, with natural powers which make him capable of acquired improvements, to which no bounds can be set, is truly a work worthy of omnipotence.

So far, however, I agree with this author, that, if we hold language to be revealed, we cannot stop there, but must maintain that all the other arts of social life were likewise revealed; and, first of all, the use of fire, which is the foundation of all the rest. And indeed our becoming so familiar with an element so terrible to all animals in their natural state, as to make it a necessary of life, and not to be able to live without it, has fairer pretensions to revelation, than any thing else be-

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longing to civil life. Accordingly the ancient mythologists tell us, that it came from heaven, not honestly indeed, but stolen, as they say. For, as they thought that the use of fire had produced much mischief to man *, they would have held it impious to maintain that it was the gift of Heaven; whereas, some religious men of our time seem to think that all the many inventions of men ought to be considered as coming immediately from God, without distinction, whether they have been useful or pernicious to mankind.

* *Post ignem aetheriâ domo .
Subductum, macies et nova febrium
Terris incubuit cohors ;
Semotique prius tarda necessitas
Lethi corripuit gradum.*

The philosophy of these lines is, that the use of fire, and the invention of all the arts depending upon it, that is, in one word, all the arts of civil life, have been pernicious to mankind. This is an inquiry which does not belong to our subject; and all I shall say of it at present is, that it goes altogether out of the fight, not only of the vulgar, who do not conceive that man can exist without the use of fire, but even of our modern philosophers, all except that singular genius, which this age has produced, Mr Rousseau.

C H A P. VIII.

Of the Causes which gave rise to civil Society.

I Think I have shewn very clearly, in the preceeding chapters, from facts, arguments, and authorities, that civil society, which alone could produce a language, is not from nature, or coeval with the animal, but must have had a beginning; and the question now to be examined is, how it began? for it is evident, that there must have been some cause of a change so great as from a *solitary*, or at least an animal *not political*, to a *social* and *political* animal. And, I say, that the same cause that first produced ideas, and made men rational creatures, did also make them social and political, and, in process of time, produced all the arts of life; and this cause is no other than the necessities of human life :

Hinc variae venere artes: Labor omnia vicit
Improbis, et duris urgens in rebus egestas.

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For not only did this want produce what is called the necessary arts of life, but, after those first wants were supplied, there arose another want very urgent likewise, I mean, the want of occupation, of pleasure, and amusement, which gave birth to the pleasurable arts ; and, when the mind came to be cultivated, there arose a curiosity, and desire of knowledge, which produced the sciences.

But the necessities we are now speaking of were, either the want of subsistence, or of defence against superior force and violence. As to the want of sustenance, it appears evident, that, in certain countries and climates, the natural produce of the earth is sufficient to maintain man, as well as other animals, without either society or arts: But, in the first place, he may multiply so much, that the spontaneous growth of the earth, without art or culture, cannot maintain him ; or he may go to countries and climates which by nature are not fitted to support him. In either of these cases, he must have recourse to society and arts. It is, by means of these, that man has multiplied more than any other animal of equal size, and has become an inhabitant of every country and climate; whereas, e-

very other animal has only certain countries or climates where it can subsist.

The other motive which I mentioned, as inducing men to enter into society, was self-defence; the necessity of which will appear the greater, if we consider two things: *First*, That man is by nature weaker, and not near so well armed, as many of the beasts of prey; and, *secondly*, That he is the natural prey of all those beasts, when they think they can master him; whereas such beasts do not prey upon one another; by which I mean, not only that a lion does not prey upon a lion, but that he does not prey upon a tiger, or wolf, or any other carnivorous beast, though of less size or strength, unless perhaps in cases of extreme necessity. But man is the common prey of them all; and some of them who have tasted of his flesh are, like the Indians above mentioned, fonder of it than of any other; which is said to be the case of the *Hippopotamus* or river-horse in Egypt*.

In this so disadvantageous situation, surrounded by so many enemies, nature appears to have provided no defence for man

* See *Maillet* the French consul's account of *Egypt*.

but superior sagacity. Nor would even that have availed him in the single state; but it directed him to associate himself with others of the same species; to act in concert with them; in short, to institute civil society, and invent arts; and, among others, that great instrument of social life, *Language*, without which mankind never could have proceeded far in the invention of arts. But, with the assistance of language, society, arts, and sciences, it is hardly possible to set bounds to the progress of an animal, the most sagacious and inventive, as well as the most imitative of any that has been hitherto discovered; and who has from nature an instrument of art, which may be called the *instrument of instruments*, as by it he both makes and uses other instruments; I mean, the *human hand*, without which he could not, though possessed of such superior talents of mind, perform the works of art. He has already made himself the lord of this lower world, and acquired dominion over animals very much stronger and fiercer than he, and by nature much better armed. The face of the earth he has changed by his art and industry, and even the elements and powers

of nature he has made subservient to his purposes.

*Audax omnia perpeti
Gens humana.—
Expertus vacuum Dædalus aëra
Pennis non homini datis *.
Perrupit Acheronta Hercules labor.
Nil mortalibus arduum.*

* This story of *Daedalus* is no doubt a poetical fiction, though, like other poetical fictions, it has a foundation in historical truth; for the fact appears to have been, that *Daedalus* made his escape from Crete in a swift-sailing vessel of his own invention. But it is not a fiction, that *Bishop Wilkins*, a most ingenious as well as learned man, did try to invent an *art of flying*, and was so confident of his success, that he said, he did not doubt but that he should hear men calling for their *wings*, as they now call for their *boots*.

C H A P. IX.

Continuation of the same Subject.—Some countries not fit to maintain Men in the Natural State.—All countries may be overstocked with Men, as well as with other Animals.—The Remedies in such a case.

THE origin of human society is a subject of great curiosity, and of great importance in the history of man. I should have exceeded the bounds of my work, if I were to treat of it at as great length, and with as great accuracy, as it deserves; I cannot however dismiss it without some further observations.

It appears to me, that, without one or other of those two causes which I have assigned for the origin of society, there never would have been society, language, or arts, among men: And, could we suppose a country naturally so fruitful as to produce, at all times of the year, food in abundance

for men, however numerous; and if we could also suppose the climate of such a country so mild as not to require any protection from art against it, which is truly the case in many countries; and if we could further suppose, that there were there no animals of superior strength, with which men were obliged to contend,—I do not see how it ever could have happened, in such a country, that men should have associated, and instituted civil society.

One thing at least is certain, that in fruitful countries, and benign climates, men can live very well in the natural state, and may continue a long time in that state; and I think it is equally certain, that, in rude climates, and barren countries, they cannot subsist at all without society and arts. In such a country as Canada, for example, which is covered for several months of the year with deep snow, how is it possible the Indians could live without the arts of fishing and hunting, by the first of which they support themselves in the summer, and by the last in the winter? As it is, they very often perish by hunger; but, without those arts, or agriculture, and the art of preserving, as well as raising, the fruits of the earth, it is

evident they could not live a year to an end. For, supposing that men could subsist upon herbs or foliage, as horses and cattle can do, without seeds or fruits, (which however I do not believe); or supposing that they could be nourished by the roots of certain vegetables, to be found wild even in the northern countries, which, for any thing I know, may be the case; and supposing further, that they could dig for them with their fingers, as the wild girl above mentioned, whom I saw in France, told me she did; where are leaves or herbage to be found in such countries for one half of the year? And how could single men, without instruments of art, dig for roots in ground hardened like iron by frost, and covered with five or six feet of snow?

From these considerations I think we may infer, that men never could have lived in the natural state in such countries; that is, without society and arts; and consequently, that in those countries the human race never could have a beginning, and that therefore they must have been peopled from milder climates, by tribes and colonies of men already civilized, and who brought with

them arts, by which they were enabled to subsist in those rougher climates.

And this explains a fact in the history of man, which I hold to be certain, as both sacred and profane history agree in it, That the progress of the human race has always been, so far as we can trace it, from the east, and particularly from the southern parts of Asia, where, according to our sacred books, the human race first began. For those parts of Asia are a much finer country than Europe, and have always produced finer bodies of men, and other animals, as well as better vegetables *. This of itself makes it highly probable, even if it were not attested by history, that men having first associated themselves in those milder and more fruitful regions of Asia, did from thence spread themselves into Europe, and other parts of the world, where the climate was not so propitious to the human race, and there subsisted by arts which they had imported †.

* This is an observation of Hippocrates the physician, in his treatise, *De aëre, aquis, et locis*, § 3. p. 288.

† It cannot be doubted that man, in a warm climate and good soil, can subsist upon the natural fruits of the earth. In the new discovered island of Otaheite,

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But the most fruitful country may be overstocked with any animal, and particularly with man, who I believe is maintained with more difficulty, even in his natural

for example, the inhabitants pull bread off trees, which grow with no culture, for about nine months in the year; and, when this food fails, it is supplied by nuts and other wild fruits. It is for this reason, I suppose, that Linnaeus makes such climates to be the native country of man, where he lives naturally and of choice; whereas, in other climates, he lives only by compulsion, *non natura, sed coacte*. If this be so, the human race must have begun in those countries, where they would subsist for some time upon the natural fruits of the earth, in the manner that the Orang Outangs do in certain parts of Africa. Then becoming too numerous to live in that way, they would invent arts, such as hunting, fishing, and agriculture; and when even those arts became insufficient for their subsistence, they would be obliged to move to other climates less favourable, and there subsist by the arts which they had brought with them. And in this way the whole earth has been at last peopled, even the worst parts of it, lying

————— *extra anni Solisque vias,*

and altogether uninhabitable by every other animal of the milder climates.

This is, according to my system, and, as it would seem, that of Linnaeus, a short abridgement of the history of man.

state, than other animals of much larger size: For I hold, that he cannot subsist upon herbage or foliage alone *, but must have seeds, fruits, roots, or flesh. And it is to be considered, that man must have multiplied very much in his natural state, as he likewise does in the first stages of society †. Now, when men were so multiplied that the natural fruits of the earth could not maintain them, they were under a necessity to practise one or other of the following methods; either to disperse, and go in search of other countries, where they might subsist more at their ease. But this in many cases might be impracti-

* The *Egyptians* pretended, that they had fundry aquatic plants growing in their river, which were sufficient for the aliment of man, particularly one they called the *Ltus*. If this be true, it is an exception to my rule; and is a very good argument, and, as such, was used by the *Egyptians*, in favour of the antiquity of the human race in *Egypt*, as being the country of all others the most proper to maintain man in his natural and *infantine* state, as it may be called, without society or arts. See *Diodorus Siculus, in initio*.

† This is so true, that it was the study of the ancient legislators to prevent the too great increase of their citizens; for which purpose they used strange expedients, such as allowing the exposition of children, and even the unnatural passion of men for one another. See *Aristotle de republicâ, lib. 2. cap. 10*.

cable: For the countries round them might be, and in process of time certainly would be, as much overstocked as theirs; or they might be hindered by seas, great rivers, or impassable deserts. To all which may be added, the natural aversion that every animal has to quit its native country, and the haunts to which it has been accustomed. Or, *2do*, They must prey upon other animals, or upon one another. But this, besides the danger of it, would hardly be practicable by man solitary, unassisted by arts, and without other weapons than those which nature has given him. Or, *lastly*, They must associate and provide in common what singly they could not procure. And this last method, it is natural to think, so sagacious an animal as man would prefer to either of the other two*.

It would lead me much too far from my purpose to inquire, what methods were first used by men associated for increasing their

* What extremities men have been reduced to for subsistence, even in the first ages of society, is evident from a fact which cannot be doubted, that several of the barbarous nations, at this day, use for food the vermin of their own bodies.

natural stock of provisions. I will only say in general, that I believe hunting must have been among the first;

*Cum jam glandes atque arbuta sacre
Deficerent silvæ, et victum Dodona negaret.*

VIRG. *Georgic.*

For, as I have already observed, the natural fruits of the earth were the first food of men. My reason for thinking that hunting was the first expedient they fell upon for supplying the want of those fruits is, that it is much easier than planting, sowing, or any kind of culture of the ground, before instruments of art were invented. For man, by his natural strength and agility, with the addition only of a stick, which, as we have seen, is used even by the Orang Outangs, whom some authors will not allow to be of our species, can master a great number of quadrupeds, especially if he be assisted by numbers; and I remember the wild girl I have so often mentioned told me, that, with no other weapon than a bludgeon, which she called a *Boutou* *, she was able, with the

* It was from this circumstance that I discovered she had been in one of the *Caribbee* islands; for in a French account published of those islands, by one *Sieur la Beaud,*

assistance of the black girl her companion, to kill as much game as, together with the roots they dug up, maintained them in their travels through the woods. One natural consequence of hunting would be, that, in process of time, they would think of the expedient of catching certain animals alive, taming them, and breeding out of them, which would greatly add to their stock of provisions. This produced the pastoral life, which is the only means of subsistence of whole nations at this day. But it may be observed, that, unless in countries where flocks and herds can live through the winter upon the natural produce of the earth, it is impossible that men can be supported in that way, without the assistance of other arts, and particularly agriculture. And this is a good reason why the Indians of North America, not having the art of agriculture, have never attempted the pastoral life, or to tame any animals other than dogs that live upon flesh.

But I have no occasion to trace any further the progress of men in the arts of subsistence; it is sufficient for my present pur-

I find that the *Caribbees* use that weapon, and call it by the same name.

pose, that I have brought them together by means of the first cause of association I have mentioned, viz. the *want of the necessaries of life*; and I proceed next to examine the second reason I mentioned for the institution of society, *self-defence*.

But, before I come to that, it may not be improper to observe, that this change of man from a frugivorous to a carnivorous animal must have produced a great change of character. What effect the mere feeding upon flesh, instead of vegetables, may have upon the temper and disposition of the mind, I shall not at present inquire; but it is the way of procuring this flesh-diet, by the destruction of other animals, that has produced the change I speak of. While man continued to feed upon the fruits of the earth, he was an innocuous animal, and, like others who lived in the same way, more disposed to fly from an attack than to make one. But, as soon as he became a hunter, the wild beast, which is part of his composition, became predominant in him. He grew fierce and bold, delighting in blood and slaughter. War soon succeeded to hunting; and the necessary consequence of war was, the victors eating the vanquished, when they could

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kill or catch them ; for, among such men, war is a kind of hunting *. In this state, man, if not tamed, or subdued by laws or manners, is the most dangerous and most mischievous of all the creatures that God has made ; much more so than any lion or tiger, or any other the fiercest animal that roams the forest. It was in this state that Orpheus, the first civilizer of men in this western part of the world, found the savages of Greece, when he imported among them the arts he had learned in Egypt, and tamed them by religion and music,

Dictus ob hoc lenire tigres rabidosque leones †;

* It is so at this day in many parts of the earth; and, I am persuaded, it was so originally among all nations after they became hunters and flesh-eaters. In the language of the *Iroquois* of North America, *to put on the cauldron*, is to declare war, as *Charlevoix* informs us. And, as late as the days of *Gabriel Sagard*, who travelled in the country of the *Hurons* in 1630, these people were still in the practice of boiling their enemies in a great cauldron, and feasting upon them; p. 217. of his travels. And, though those hunters have given over eating their enemies, it is certain, there is nothing in which they delight so much as blood and slaughter.

† *Silvestres homines facer interpretisque deorum
Cædibus et victu foedo deterruit Orpheus :
Dictus ob hoc lenire tigres rabidosque leones.*

HOR. *Art. Poet.* 392.

which is one of the fictions of the Greek poets, where the truth of history is easily seen through the veil of fable.

C H A P. X.

What Dangers made Men associate for the sake of Self-defence.

MAN, in the natural state, must stand in need of defence, either against wild beasts, against men of the same country, or, lastly, against foreign invaders.

As to the first, those who know no more of the history of man than what they have learned from observing the customs and manners of their own and other modern nations of Europe, will hardly believe, that there was a time when the wild beasts disputed

Where the *foedus victus* is no doubt the eating one another; from which, among other barbarous customs, Orpheus reclaimed them.

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with us the empire of this earth: But nothing is more certain,

Tempora si fastosque velis evolvere mundi.

HOR.

And it is likewise certain, that they very often prevailed in the dispute, till art and numbers came to the assistance of our natural strength and agility. And, therefore, the first heroes, and greatest benefactors of mankind, next to the inventors of arts, were those men of superior strength and valour, who fought with and destroyed wild beasts. Such was Hercules of old: I mean, not the Greek Hercules, the son of Amphitryon, who came too late into the world to have much business of that kind; but the Egyptian Hercules, several thousand years older, whose exploits the Greeks, with their usual vanity, ascribed to their hero, who was indeed originally from that country, and from thence probably had his name *. The arms which the la-

* He had at first another name, which I have forgot; but afterwards his parents, who were both originally from Egypt, thought proper to give him the name of the Egyptian god. See Herodotus, *lib. 2. cap. 43. et 44.* who tells us, that, in order to settle the point of antiqui-

ter Greek fables (for they are not so old as Homer *) give to this hero, were very probably the arms of his antient namesake of Egypt; I mean the club, and the lion's skin, these being the only arms then known. But experience would soon discover, that it was necessary to have other and better arms against enemies so much superior in bodily

ty betwixt the Egyptian and Grecian Hercules, he made two voyages, one to Tyre, the other to Thafus; in each of which places there was a temple of Hercules, both long prior to the son of Alcmena: From whence he very justly concludes, that these temples were erected to the Egyptian Hercules. Such was the curiosity and diligence of this historian, who had so little of the vanity of his countrymen, that in this, and several other instances, he was at uncommon pains to refute their vain lies.

* According to this poet, he wore neither lion's skin nor club, but was armed with a bow and arrows; and he is introduced among the other spirits which appeared to Ulysses, in the 11th book of the *Odyssey*, *viz.* 606. And, upon this occasion, it may be observed, that a great deal of the Greek fables and religion is posterior to the days of Homer: For, in his time, neither this Hercules, the son of Alcmena, was worshipped, nor Castor and Pollux. And Bacchus, who became so great a god afterwards, is, I think, but once mentioned in Homer, and that in a way that does him no honour; for he is represented as running away from Lycurgus, the King of Thrace, and hiding himself in the ocean.

strength *; and that it was also necessary to avail themselves of their numbers, and to act together in concert, both in attacking and defending. And this I hold to be one kind

* Even after arms were invented in Greece, and the use of them well known, the Caledonian boar was destroyed with much difficulty, and not till he had killed a great many of the noblest youth of Greece, as Homer informs us, *Iliad*, ix. 542. And, in much later times, as late as the days of Cræsus King of Lydia, a boar laid waste the lands of the Mysians, a people of Asia, in the neighbourhood of Cræsus; and they not being able to destroy him themselves, sent to Cræsus for assistance; who accordingly sent them his son, at the head of a chosen body of hunters, *Herod. lib. 1. cap. 36*. I know the mere modern reader will reject all these stories as fables, and will not even believe Pausanias, who says, that he saw a tusk of the Caledonian boar, which was preserved as late down as his time, and of which he gives us the dimensions, *lib. 8. cap. 45*. But the learned will have no doubt of the truth of either of the stories, knowing well, that even what is called the fabulous history of Greece, is for the greater part true history; mixed indeed with many romantic circumstances and superstitious tales, which a little sagacity and critical discernment can easily separate from the truth of history. As to Herodotus, though, I know, his authority is by many thought no better than that of Homer, and the other Greek poets, yet I will venture to affirm, that whoever understands his history, and has diligently studied it, will hardly doubt of what he relates, not as a hearsay, (for he has many stories of that kind which he tells us he does not believe himself), but as a simple historical fact. As to this article, concerning the difficulty of mens

of self-defence that made association and a public necessary; so necessary, that Diodorus Siculus mentions no other reason for mens herding together*.

The second reason, under this head, that I assigned for association was the violence and injustice which men had to fear from one another. For as soon as men began to multiply very much in any country, there would necessarily be an interference about provisions; about their layers, where they slept, or rested, and sheltered themselves from the weather;

defending themselves against wild beasts in the first ages of the world, Diodorus Siculus, in his 3d book, informs us of a savage nation in Africa, that he calls *ῥιζοφάγοι*, from their feeding upon roots, who, he says, not having the use of arms, could not defend themselves against lions, and would have been quite destroyed by them, if it had not been for a multitude of flies that came at a certain season of the year, and drove away the lions. It is in a situation such as that of those *root-eaters*, that I suppose men would, from the motive of self-defence, enter into political society, and invent arts of defence. And not only by such fierce beasts have countries been rendered not habitable, but also by reptiles, such as serpents; and small animals, such as mice, frogs, and sparrows, which, in several instances mentioned by Diodorus, *lib. 3. p. 114. Stephani*, have got the better of people with all the advantages of society and arts, and driven them out of the country.

* *Diodorus, lib. 1. cap. 8.*

—*Glandem et cubilia propter;*

and, lastly, about their females,

—*Venerem incertam rapientes more ferarum.*

HOR.

Such interfering would produce strife and contention; of which the consequence would often be wounds and death, and in which the stronger would always have the better, as we observe in the herds of other animals, where there is no other law but that of the strongest. In this way there would be great violence, oppression, and destruction of the species; to prevent which, so sagacious an animal as man would be naturally led to form a kind of public, by the strength of which the weaker might be made more powerful than the stronger, and the whole society benefited in every respect.

By what I have said here, I would not be understood to retract what I have said above in opposition to Mr Hobbes, that the state of nature was not a state of war: For I perfectly agree with Mons. Rousseau, that there are in that state much fewer occasions of quarrel than in the state of society; for, in the natural state, men can quarrel only about the necessaries of life, and the gratifications of na-

tural appetite; whereas, in the civil state, men quarrel about fame, power, pre-eminence, and all the numberless gratifications of vanity and luxury. But what I maintain is, that when men grow numerous, and the necessaries of life scanty, they must, like all other animals, prefer each himself to another, and that will of necessity produce strife and contention. But this is not the consequence of the natural state in itself, but of the excessive multiplication of the species; against which nature has provided several remedies, such as famine, pestilence, inundation, extraordinary severity of weather, and, among others, the destruction of the animals by one another, when provisions become scanty.

The third reason of this kind I mentioned was protection against foreign invaders. This proceeds upon the supposition of associations being already formed by some herds in the neighbourhood, for invading their neighbours, either from mere wantonness, and a spirit of conquest, which has produced many cruel wars among men; or for want of the necessaries of life, which has obliged men very often to leave their own country, and try to find out another. Such invasion would

naturally lead the people of the country invaded to associate themselves, in order to take common measures for their defence.

One or other of these reasons appears to me to have made men first associate for the sake of self-defence; and this, joined with the want of the necessaries of life, accounts for the origin of society among men.

C H A P. XI.

Answer to the Objection, That instinct was sufficient to provide men with all the Necessaries of Life, and to defend them against their Enemies.

IT may be objected, That all the necessities I have mentioned, whether of sustenance or defence, might be supplied by instinct, with which I have supposed man to be originally provided by nature, as well as other animals, for whose wants we see it is

sufficient ; so that the reasons I have mentioned did not give rise to society ; which therefore may still be from nature, and not an adventitious state, as I suppose it, introduced by the necessities of life.

This objection is pretty much the same with the argument which I stated in the first book, and endeavoured to refute, tending to prove, that our ideas are not from instinct* ; and, if it be true, as I think I have shewn, that they are not from instinct, it will follow of necessary consequence, that those arts of sustenance and self-defence, which cannot be without ideas, are likewise not from instinct. I will, however, without repeating what I there said, add some further observations concerning the difference betwixt instinct and art.

But, in the first place, it is to be observed, that I do not deny, that, in those milder climates, which I suppose to have been the original country of men, nature has made sufficient provision for the maintenance of men, as well as of other animals natives of the country. For those countries abound with wild fruits, such as yams, plantains, bananas, cocoa-nuts, and the like, which, I

* *Ch. 13. Pag. 168.*

am persuaded, afford a more wholesome diet for men, than any artificial fruits. In such countries, men, as well as other animals, must increase so fast, that one should think the earth could not support them. But nature has not only provided wonderfully for the preservation of the several specieses of animals, but has also, as I have observed, contrived many ways to prevent their excessive multiplication. In India, the brute animals, tho' they be not consumed for the food of man, nor wantonly destroyed, as in Europe, do not, however, multiply so much as that the country is incumbered with them, or not sufficiently peopled with men; nor does any species of them multiply beyond its natural proportion, or in such a degree as to destroy the rest. In this manner, I am persuaded, man, in his natural state, would live with the other animals; but, in the civil state, he has contrived means of subsistence, such as hunting, fishing, and agriculture, by which his numbers are increased, much beyond the natural proportion, and more than those of any other animal of the same size upon the face of the earth; and we are now to inquire, whether such means of subsistence

could have been the effect of *instinct*; or, whether they be not produced by what we call *art*.

Between these two there is this material difference, that instinct is a principle of action implanted in us as in other animals, by which we are directed to what is necessary for the preservation either of the individual or the species; but without any knowledge of the end, or how the means conduce to the end; and, consequently, without *will*, which never can be but where there is an end in view. Art, on the other hand, acts with knowledge of the end, and of the means by which it is attained; and consequently its operations are voluntary, proceeding from motives influencing the will. But, besides this capital difference, there are the following:

1st, All animals are directed by instinct to search for, to find out, and to make use of the food which nature has provided for them. But it has not directed nor instructed them to multiply that food, and to make the earth produce more of it than it naturally produces. In other words, instinct does not teach us to till, sow, or plant.

2^{dly}, Instinct has directed us to make the

best use of all the parts or members of our body for procuring our subsistence; but it has not directed us to make artificial instruments, either for increasing the quantity of food which nature has provided for us, or for bringing within our reach food which otherwise would, by our natural faculties, be inaccessible to us.

3dly, Nature has directed every animal to the best use of those arms, offensive or defensive, with which she has provided the animal; but she has not taught him either to make or to use any other; so that, whenever we see an animal using adventitious aids of that kind, we may be sure that it is the effect of art. And if there were nothing else to convince me that the Orang Outang belongs to our species, his using sticks as a weapon would alone be sufficient. Horace therefore appears to have been very well instructed by his philosophy in the progress of man from instinct to art, and from natural to acquired faculties, when he tells us, that men, as long as they were *mutum et turpe pecus*, that is, altogether in the natural or brute state, fought, *unguibus et pugnīs, glandem et cubilia propter*;—*dein fustibus*, that is, when they came to be a little advanced towards humanity,

and in the state the Orang Outangs are at present; and then, *armis quæ post fabricaverat usus*, that is, when they were so far advanced in civil life as to invent arts *.

The sum of these differences betwixt art and instinct seems to amount to this, that instinct goes directly to the end it proposes,

* “ Cum proreperunt primis animalia terris,
 “ Mutum et turpe pecus, glandem atque cubilia propter,
 “ Unguibus et pugnīs, dein fustibus, atque ita porro
 “ Pugnant armis, quæ post fabricaverat usus.”

I will subjoin the rest of the passage, as it shews that Horace’s philosophy perfectly agrees with mine in regard to the invention of language.

“ Donec verba, quibus voces sensusque notarent,
 “ Nominaque invenere: Dehinc abstinere bello,
 “ Oppida cœperunt munire, et ponere leges,
 “ Ne quis fur esset, neu latro, neu quis adulter.”

Satir. III. v. 99. et seqq.

The distinction that Horace makes here betwixt *verba* and *nomina* I shall afterwards explain; but what I quoted the passage for at present is, to observe, that the progress according to Horace was, first the natural or brute state, without language or arts of any kind; then the invention of certain arts, particularly the arts of attack and defence;—then language; and lastly government and laws, and every other art of life, connected with, and dependent upon these. This system, I believe, will, upon the strictest examination, be found the true system of human nature; and a history of man would be nothing else than a commentary upon these few lines.

or does not go *far* about; whereas art takes a round, and performs its operations by studying the nature of things, comparing ideas, and drawing consequences from premises; *ex. gr.* Nothing appears to us more simple than the use of a stick for a weapon; yet the animal who uses it must know, *1st*, the nature of wood, that it is a hard body; *2^{dly}*, That any hard body, impelled upon another body with force, will make an impression which may very much hurt or destroy that other body; *3^{dly}*, That the manner in which the human hand can make this impression in the most forcible way is, by taking a stick of a moderate length, and suitable thickness, by the one end, and in that way making the blow. All these ideas the Orang Outang must have formed from observation and experience, before he used a stick as a weapon-offensive.

Another difference which we may observe betwixt art and instinct is, that as art is founded upon experience and observation, so it is improved by them; and it is by gradual improvements in that way that arts are perfected: But instinct, as it does not arise from experience, so it is not improved by it. And accordingly a swallow builds her nest,

and a spider weaves his web, as well the first year as any year thereafter.

Thus it appears, that instinct and art are in their natures different, though in their operations they sometimes seem to be the same. The bee, for example, forms her hexagon cells as accurately as if she had been instructed by Euclid; yet it is impossible to believe, that she understands geometry, and knows the rules by which she works, or even the end for which she works. It is therefore only instinct, but an instinct of an extraordinary kind, in which the wisdom of the great Author of nature manifests itself more than it usually does in the operations of brutes. Now there is not the least reason to think that we ever had such an uncommon instinct, or any other than what we observe in horses, cattle, and other quadrupeds of this country. Such instinct certainly never could have taught us to till, sow, or hunt, or to invent arms, either for attack or defence. It appears therefore evident, that our instinct could not have supplied those wants which made society necessary.

Before I conclude this chapter, I will make some observations upon the consequences which the introduction of art has had with re-

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spect to the numbers, both of men and of other animals. And, in the *first* place, as I have already observed, it is by the means of art that man has spread himself over the earth more than any other animal known, so as to be of all climates, and to inhabit countries which otherwise could not support him. *2dly*, It is by the same means that he has multiplied in the several countries much more in proportion than any other animal of the same size. But, *3dly*, This I think could not have happened without the destruction of many other animals. With respect indeed to such as we have tamed, it may be thought that we take so much care to provide food for them, which they would not have without our skill and industry, that they should multiply more under our government than in their natural state. But it is to be considered, on the other hand, what numbers we consume of them in food, and how many more we destroy of them by hard labour, and by using them cruelly or unskilfully. Besides, they are not so healthy under our care, being housed, and kept in a way not unlike that in which we keep ourselves, as they would be in the natural state. But

with respect to the wild animals, I think that there can be no doubt that they are greatly decreased by the empire which man has obtained over them: For in certain countries we have destroyed whole specieses of them, such as we have found troublesome or dangerous to us; as wolves, for example, in Great Britain and Ireland, and lions in every part of Europe. What remains of them we preserve for our sport and pleasure: But, though they be under the protection of the laws in all the kingdoms, I believe, of Europe; yet those laws have been so much neglected or evaded, and so many ways have been fallen upon of destroying them, that I hold the fact to be certain, that their numbers are decreasing daily, even in Europe, and much more so in other countries, where the men subsist upon them, as in North America. I am persuaded, therefore, that, with respect to us and the brutes, the general law of nature takes place, that no species can be increased beyond its natural proportion, but at the expence of others*.

* Man says *Momus*, is the play-thing of *Jove*, (*το παιγνιον του Διου*), or, as Mr Pope has rendered it, *the standing jest of Heaven*. But if *Momus*, quitting his sportive vein, should assume a tone of keen satire, and virulent invective,

C H A P. XII.

Objection answered, That there could be no Society without language.—Instances of Such Societies.

I Will now try to solve *Monf. Rousseau's* great difficulty with respect to the invention of language. He is convinced that

and if *M. Rousseau* should lend him words, he would say, that man is the most mischievous animal that God has made;—that he has already almost depopulated the earth, having in many countries destroyed whole specieses of animals, and continuing daily to destroy those that remain, no. only to gratify his luxury and vanity, but for mere sport and pastime. “ What attonement, most pernicious *biped*, or *quadruped*, or whatever other title most offends thine ear, what attonement canst thou make for this so great abuse of thy superior faculties, and this destruction of the creatures of God? None other, except to destroy thyself next, and so avenge the rest of the animal race. This thou art doing as fast as possible; and for this only I can commend thee. When this work is accomplished, then shall the true state of nature be restored, and the real golden age return. Then shall *Astræa* visit the earth again, whose latest footsteps are now no longer to be seen: So shall the rest of the animal creation, freed from a tyrannical and capricious master, live the life which nature has destined for them, and accom-

society is absolutely necessary for this invention; but he seems to think that language was as necessary for the constitution of society. Now I will endeavour to shew, both from theory and fact, that animals may associate together, form a community, and carry on in concert one common business, without the use of speech.

For this purpose nothing else is necessary than that there should be among such animals some method of communication. If therefore there be other methods of communication, besides that of articulate sounds, there is nothing to hinder a society to be constituted without the use of speech. Now, that there are other methods of communication, is a fact that cannot be doubted: For there are inarticulate cries, by which we see the brutes communicate to one another their sentiments and passions; there are imitative cries; and, lastly, there is the expression of looks, that is, the action of the face; and the gestures of the body. In one or o-

• plish the end of their being: So shall even man himself
 • if any of the wretched race yet remain, acquit provi-
 • dence of the imputations he has thrown upon it, and
 • shew that he was made upright, though he have found out many
 • inventions.’

ther, or all of these ways, it is evident that animals may understand one another so far at least as to act in concert, and carry on some common business, which, according to Aristotle, is the definition of a political animal.

As to instances of animals acting in this way, without the use of speech, I will not insist upon such animals as the bee or ant, because I hold, that they act by instinct merely; that is, by a necessary determination of their nature, without any will or choice, and without any knowledge of the operations of one another, or even of their own; but I will give examples unexceptionable, of animals that act in concert, and by communication, and yet have no use of speech.

And I will begin with the Beaver; which, as I have observed already, resembles our species in this, that it is of an ambiguous nature, between the solitary and the social, without any necessary determination to either way of life; so that he sometimes lives in society, and sometimes by himself, according to the circumstances and situation in which he finds himself. In such an animal there must necessarily be choice and deliberation,

not instinct merely; and therefore I think his example will apply most appositely to our species. This animal is truly political, in the common sense of the word, at least when they are in the social state; for they live in what may be properly enough called villages, consisting sometimes of twenty or five and twenty cabins, or little houses, and these inhabited each by five or six, and sometimes to the number of ten pairs; for they are all coupled in that way, male and female together. These several families compose a community or state, consisting commonly of an hundred and fifty or two hundred beavers, who work together in concert in all their public works, such as felling trees, and building the dam of their pond. And of this great community each cabin is a part, forming a lesser community, which works together in every thing relating to the cabin, such as building it, and laying up a magazine of provisions for it: For they have property among other things appertaining to the political life; and not property belonging to the state only, which is commonly the case of the Indians of North America, but property belonging to each cabin. The construction of their

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dikes and cabins, as described by **Monf. Buffon**, from whom I take this account *, is really wonderful, particularly that of the **dike**, which is a stupendous work for an animal of so small a size, and built with so much skill, that I do not think human art could build it better. They have not, however, that mark of humanity which I observe in the **Orang Outangs**, of using any instrument besides those with which nature has furnished them, viz. the members of their own body; for, though they have very short forelegs, with feet shaped like a hand, having five fingers divided, with which they feel any thing, lay hold of it, and carry it to their mouths; and though they can easily erect themselves upon their hinder parts, and very often do so; yet they never use a stick, or any other instrument of art. But, except in this particular, and that they have no use of speech, they are as much a political animal as man, only much better policed than any community of men that we know at present: For they live together, and carry on their public affairs in the

* *Histoire Naturelle*, tom. 8. p. 289.

greatest peace and harmony, and with the exactest observation of justice, never injuring one another, either in their persons or properties. What signs or methods of communication they use in carrying on their works *Monf. Buffon* does not mention, but it is certain that they must use some; and, if their policy were carefully observed, I am persuaded it would be found, that there is an established government among them of one kind or other, without which I think it is impossible that the affairs of their community could be so regularly conducted.

In such a state I imagine men were, and must have been, perhaps for ages, before a language was invented. They must, I think, have been associated as the beavers are, living together in cabins or huts *, and carrying on of concert some common work, either for their sustenance, such as hunting or fishing, or in the way of defence or attack. In short, they must have been united in the political life; for the mere herding together, without such union, would not be

* The huts of the New-Hollanders are not near so well built as those of the beavers, and serve only for a cover to the head and shoulders, as I am informed by the travellers who have lately been in that country.

sufficient for the invention of so difficult an art as language, or indeed of any thing which deserves the name of art. For though I do not deny, that man, by his natural sagacity, and by experience and observation, might perhaps, towards the close of a long life, form some imperfect ideas, even without the help of political union, I think it is impossible that he could invent any thing deserving the name of *art*. But it is needless to dwell longer upon this inquiry: For, as I have already said, I do not think there is any reason to believe, that men ever herded together without acting in concert.

Of so difficult invention does this art of language appear to me, that I imagine men must previously have invented and practised more difficult arts than the fishing practised by those inhabitants of New Holland whom Dampier mentions, or by the fish-eaters of Diodorus Siculus. And though those New-Hollanders have the use of speech, I can hardly believe that they have invented it, but have learned it by intercourse with some other nation; and this I believe to be true of all the nations that have been found in a ve-

ry barbarous state, and yet having the use of speech.

The next animal I shall mention living in a political state, without the use of speech, is an animal not so well known as the beaver, and mentioned only by one author, so far as I know, but an author of good credit, I mean Cardinal Polignac *, in his *Anti-Lucretius*. And he is the more to be credited in this particular, that the instance, as he confesses himself, makes against his system, of the brutes being no more than machines, according to the philosophy of Des Cartes, which he follows. This animal, he says, he himself saw somewhere in the *Ukraine*, upon the banks of a river he calls *Danastris*. It is named, he says, by the Poles *Baubacis*; and is like a fox in appearance; but subsists upon herbage. They live associated in caverns under ground; and the business they carry on is, foraging in the fields, and making

* This author flourished in the end of the last century, and the beginning of this, and was a man of great eminence, not only for learning, but for political abilities; and was accordingly much employed in public business, such as embassies, and negotiations of peace. In this poem, though he refutes *Lucretius*, he has imitated his style and manner very exactly; and I think the diction of it is the best modern philosophic Latin extant.

magazines for their provision during the winter. About their fields and pasture they quarrel and go to war; and their battles, as our author has described them, are very orderly and regular; for they have a kind of military discipline, and are formed into corps under certain leaders. But the most extraordinary circumstance he tells of them, is their manner of treating their prisoners of war, of whom they make slaves, obliging them to work in the business of foraging, and laying up provisions against winter. And, particularly, he says, that they make those slaves lie down upon their back, and hold up their legs, and then they pack the hay upon them, which their legs keep together, and having thus loaded these *living carts*, as our author calls them, they drag them along by the tail *. I think it can hardly be doubted, that this animal, with so much sagacity, if it had likewise the organs of speech, would in process of time invent a language.

The last animal of the brute kind I shall mention living in this way, without lan-

* *Anti-Lucretius, lib. 6. vers. 175.*

guage, is an animal they call a *sea-cat*, of which we have an account, that I think may be depended upon, from the Russian academicians in the description they have published of *Kamschatka*, which they went to visit by orders and at the expence of the Czarina. This animal is amphibious, and, so far as appears, does not form states or republics like the beaver, but lives in families, which are sometimes very numerous, amounting to a hundred and twenty, old and young: For the male keeps a seraglio, sometimes of fifty females, of whom he is as jealous as the Grand Signior is of his. They keep up a very strict family-discipline, punishing their wives severely for neglecting any point of duty, such as the care of the offspring, for which they shew great love and tenderness; and the consequence of this discipline is, on the part of the wives, very great submission to their lord and master, whom they endeavour to pacify, when they have offended him, by every mark of humiliation and contrition; all which he receives with the utmost stateliness and fullness. They have almost all the passions and sentiments of men. They are jealous, proud, quarrellsome, and revengeful; and when

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they have suffered any injury, and cannot resent it, they, like Achilles in Homer *, shed tears. They are as brave as any Spartan, and will rather die upon the spot than yield, or quit their ground; and their military discipline in this point is so severe, that, if any of them runs away, or even is suspected of doing so, the rest fall upon him as fiercely as they would upon any enemy, and destroy him †. Yet this animal has no use of speech, nor, so far as I know, organs proper for it: But it appears, that, without it, he can practice the most difficult of human arts, that of government, and of government over females, in which most men have failed, and even the legislator of Sparta, who, as we are told, wanted to regulate the lives of the women as he had done those of the men, but found it so difficult a work that he was obliged to give it over.

I think it is unnecessary to give more examples of this kind from the brute creation, since it appears to me that our own species furnishes sufficient for my purpose.

* *Iliad. lib. 1. v. 357.*

† *Natur. Hist. of Kamshatka, p. 125.* It is translated from the Russian language by James Grieve, and printed at Gloucester, 1764.

And, first, there are the Orang Outangs, who, as I have shewn, are proved to be of our species by marks of humanity that I think are incontestable; or, should any one, after all that has been said, still doubt of the Orang Outangs being men, what can be said to the example of dumb persons among us, whom no body will deny to be capable of living together in society, and carrying on jointly any sort of business; since we see both men and women with that defect, not only capable of acting in concert with others, but of governing and directing.

And, thus I hope I have removed *Mons. Rousseau's* chief difficulty concerning the invention of language, by shewing that society, and even the political life, which he judges rightly to be necessary for the invention of language, may exist without language.

I have enlarged the more upon this point, that it tends greatly to confirm what I have endeavoured to prove in the first book, That language is not natural to man. For, if man can subsist, not only single and solitary, but in society, without the use of language, it is evident that language is not necessary for his existence. Now, nature has not bestowed upon any animal other faculties than

those that are necessary for the subsistence of the individual, or the continuation of the kind. And, if we are to suppose that man could not, in any country or climate of the earth, subsist, even in small numbers, upon the natural produce of the ground, but stood in need of certain arts, as we see is the case of the bee and the spider, they must be arts, such as tilling the ground, fishing, or hunting, which contribute immediately and directly to the sustenance of man. Now, language is none of these; for, with it, men may starve, and, without it, they may, as we have seen, be supported. So that, if we hold language to be either natural or revealed to man, we must also maintain, and with much better reason, that the more necessary arts of life, such as those just now mentioned, are likewise either natural or revealed.

C H A P. XIII.

Objection, That the Law of Nature, as it is treated of by modern Writers, supposes men to have been originally rational and political.—Answer to that Objection.

BEFORE I conclude this book, I will endeavour to answer some objections that may be made to my system, beginning with one which will readily occur to those who have studied the law of nature and nations; a study that was very fashionable some years ago, but I think has become less so of late. It will be said, That, according to my system of human nature, it is impossible to suppose, that man, in his natural state, can be subject to any law or obligation, not being conscious of any rule of action, nor having any ideas of right or wrong, because he has no ideas of any kind. If this be so, they will say, what are we to think of those volumes that have been written within these last hundred years upon the law of nature, all supposing that man is by nature, and in his original state, ratio-

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nal and social; and, therefore, subject to certain laws and rules, which are laid down in those authors at great length?

My short answer to this is, That those gentlemen plainly beg the question, and suppose, what I think is clearly disproved, by fact and experience, as well as argument, that man, in his original state, is rational and political. I think I have shewn, that his natural state is no other than that of the mere animal; and, therefore, he can be only subject to that common law of the animal nature, well known by the name of *instinct*; a law much superior to all laws of human institution, or founded upon human institutions, and proceeding from a much higher original.

As to the authorities quoted against me, the first who reduced this law of nature into a system, and gave it the form of a science, was Hugo Grotius, a name well known in the learned world. This he did in his excellent treatise *De jure belli ac pacis*, written with a most commendable intention, to try if he could establish any rule of right and wrong * among persons who may be said in-

* That such was the intention of his work, is evident from what Grotius himself says in his *προλογισμῶν*, § 3.

deed to live in a state of nature, such as Hobbes has described, *of war of everyone against every one*, and a state infinitely more terrible than the state which he supposes: For *there* only single savages fight,

————— *Glandem et cubilia propter;*

but *here* leviathans † indeed of enormous size take the field, having not hundreds of hands only, like the giants of the poets, but hundreds of thousands, armed with deadly weapons, with which they wage most cruel war. To speak without a figure, the destruction of modern war is so prodigious, by the great armies brought into the field, and which are likewise kept up in time of peace, and, by the extraordinary waste of men, by fatigue, diseases, and unwholesome provisions, more than by the sword, while the internal policy of Europe at present is so little fitted to sup-

‘ Videbam per Christianum orbem, vel barbaris gentibus
‘ pudendam, bellandi licentiam: Levibus aut nullis de
‘ causis ad arma procurri; quibus semel sumptis, nullam
‘ jam divini, nullam humani juris reverentiam, plane
‘ quasi uno edicto ad omnia scelera emissis furore.’

† This is the name which Hobbes gives to the great corporations or political bodies we call states.

ply such destruction, that, unless the princes either fall upon some other way of deciding their quarrels, or provide better for the multiplication of people, Europe is in the utmost hazard of being again depopulated, as it once was under the Romans, but without the resource which it then had of barbarous nations to repeople it.—But to return to our subject.

In this work, Grotius understands by the *law of nature*, a law which is common to the rational and social nature *, in contradistinction to what is called *civil law*, which is peculiar to each society or nation of men. It is the same with the law of nations, at least in the common use of authors; tho' Grotius has made the distinction betwixt them, making the law of nature to arise immediately from the dictates of reason, and to be of universal obligation, without any consent or compact; whereas the law of nations is founded upon the consent of nations †. But he confesses, that the terms are used promiscuously, even by the best authors ‡. Now,

* *Lib. 1. cap. 1. § 10. & 12.*

† *Proleg. § 6.*

‡ Cicero, in a passage quoted by Grotius, *lib. 1. cap. 1. § 12.* says, *In re consensio omnium gentium jus nature putanda est.*

I acknowledge that Grotius, as well as Puffendorf, Barbeyrac, and many other later writers upon the subject of the law of nature and nations, does suppose, that men are by nature rational, and were always associated in states or communities of one kind or another. But they only *suppose* it, without proving it; and it is plain they have taken it for granted, without so much as making a question of it.

But, if their authority were more decisive upon this point, I appeal from them to a much greater authority; I mean that of those philosophers who formed the system of the Roman law: For it is well known to those who have studied that law, that they were really philosophers, who, being at the same time great men in the state, and intrusted with the administration of public justice, did apply the principles of philosophy, and the method of science by definition and division, to the laws of private property among their countrymen; a thing that never had been before done in any nation. In laying the foundation of their system, they have begun with the law of nature, as that from which every other law is ultimately derived. But what is the law of nature, according to them?

Is it the law of the rational and social nature only, as the modern writers upon the law of nature and nations have defined it?

No: It is a law common to the whole animal race. 'Jus naturae,' say they, 'est quod natura omnia animalia docuit. Nam jus istud non humani generis proprium; sed omnium animalium quae in terra, quae in mari nascuntur, avium quoque commune. Hinc descendit maris atque foeminae conjunctio, quam nos matrimonium appellamus; hinc liberorum procreatio, hinc educatio. Videmus etenim caetera quoque animalia, feras etiam, istius juris peritiã censeri.'

Thus it appears, that, as we, in giving an account of the origin of language, have gone back to that original state of our nature, when we were no more than mere animals; so those philosophers, in giving the origin of law, have likewise gone back to the same original state, when we were subjected only to that universal law which governs the whole animal nature, and is antecedent to reason, society, and all human institutions. This is their law of nature. As to the law of nations, they define it thus: 'Jus genti-

‘um est quo gentes humanae utuntur; quod
 ‘a naturali recedere facile intelligere licet :
 ‘Quia illud omnibus animalibus, hoc solis
 ‘hominibus inter se commune fit; veluti er-
 ‘ga Deum religio, ut parentibus et patriæ
 ‘pareamus.—Ex hoc jure gentium intro-
 ‘ducta bella, discretæ gentes, regna condi-
 ‘ta, dominia distincta, agris termini positi,
 ‘aedificia collata, commercium, emptiones,
 ‘venditiones, locationes, conductiones, obli-
 ‘gationes, institutæ; exceptis quibusdam
 ‘quæ a jure civili introductæ sunt *.”

Thus those founders of the Roman law have distinguished accurately what other writers have confounded, the law of nature and the law of nations; making the law of nature to be that which is common to the whole animal race, directing every thing that is necessary for the preservation of the race; and they mention particularly the conjunction of the male and female, the procreation and education of the offspring; and law here is used in the same sense as when we speak of the laws of nature which govern the inanimate parts of the creation. The law of nations, on the other hand, is

* *Pandect. lib. 1. tit.*

not the constitution of nature, but arises from human reason, and the institution of society and political life; and it is called the law of *nations*, because it is the general law of the rational and social nature, and consequently of nations, which, being independent of one another, can be subject to no other law, at least of human institution. From this law, these authors derive religion, duty to our parents and our country, distinction of property, commerce, and, in short, all the rights that men enjoy, either in war or in peace. For our authors do not, like Mr Hobbes, make war the natural state of man, but derive it from this law of nations: *Ex hoc jure gentium introducta bella, &c.* And this is the law of the rational nature, different from the laws of inanimate nature above mentioned, and also from the laws of animal nature, in so far as the word *law*, when we speak of the law of nations, is used, in the proper and ordinary signification, to denote a rule of action prescribed to a free agent, of which he is conscious, and with which he voluntarily complies.

The rules of this law of nations, as it ought to be called, I hold to be binding up-

on all rational men living in society, princes as well as subjects, and to be founded in nature; not indeed the original nature of man, but that secondary and acquired nature of a rational and political creature, which he himself has formed; and, therefore, this law is not improperly called, by some later writers, a *secondary law of nature*, in contradistinction to the *primary law* mentioned by the Roman lawyers. I hold, also, that the obligation of this law is as much founded upon compact, as the obligation of any private citizen to submit to the laws of the particular society of which he is a member. For every man, by living in society, and enjoying the protection and other benefits of it, is understood to have agreed to submit to the general laws of the rational and social nature, without the observation of which, society could not subsist; and, therefore, if a man will not submit to this law, he must fairly do as the Hottentot did, of whom *Monf. Rousseau* tells the story, that is, throw off his cloaths, and run to the woods and fields, renouncing all the benefits of society, as well as subjection to its laws.

C H A P. XIII.

Answer to the Objection, That this System of human Nature degrades it.

I Know, some pious and well-disposed persons have taken offence at my system, because it seems to deprive human nature of its chief prerogative, the rational soul, which I make to be of our own acquisition, and the fruit of industry, like any art or science, not the gift of nature; and they will further say, that, by consequence, I take from man those virtues which they suppose to be natural to him, such as piety, justice, humanity, and benevolence, which are as often lost by custom and education as acquired.

To this objection, I answer, by the distinction with which I set out in this work, betwixt the power of *becoming* any thing, and the actually *being* that thing; or, as I chuse to express it in two words, *capacity* and *energy*. This distinction, I say, runs

E e 3

through all nature, in which there is a perpetual progress from the one state to the other, and that nothing *is* at first what it afterwards *becomes* *. Now, if any one says, that the human mind is an exception from this law of nature, he must prove it. But this he will never be able to do; on the contrary, he must confess, that, in one state of our existence, at least, it takes place; for, in our infancy, where is the rational soul, but in the possibility or capacity of acquiring it? That reason thus latent in mere power, will sooner exert itself by means of culture, education, and commerce, with creatures already rational, cannot be denied. The only question, therefore, is how long, without such helps, it will lie dormant? I say, a very long time; and that, at last, it will be only excited by the necessities of human life, and the social intercourse required to supply those necessities. On the other hand, it is said, that it will come immediately when the body is arrived to its maturity. But the pious objector should well consider, whether he does

* This difference betwixt *to be* and *to become*, is well known in the Greek philosophy, and is expressed by the two verbs *εστι* and *γινεται*.

not, in this way, establish a greater connection betwixt body and mind than he is willing to allow; for, if the mind not only uses the body as its tool or instrument, but acquires, from the growth of the body, talents and faculties of operating, which it confessedly had not before, it must, I doubt, be of a nature congenial to the body, and have something more than mere sympathy with the body. Whereas my system makes a perfect separation betwixt the two, deriving all the mind's improvements from itself, by the means of experience and observation; so that the body is no more than its organ, by which it gets information of what passes without, and thereby collects materials whereupon to exert its natural powers; and, therefore, it would be as ridiculous to ascribe the mind's improvements to the body, as it would be to ascribe an artist's improvements to his tools, or the materials upon which he operates.

As to virtue, it is evident it cannot be without reason. For virtue is the perfection of reason in action, as science is the perfection of it in speculation. It is true indeed, that, in the brutes, we observe what may be called dispositions towards certain virtues

and vices: Thus the lion is said to be brave and generous, the fox cunning, the ape malicious, the dog envious; and as Prometheus, when he made man, is said to have taken something from every other animal †, we may observe this variety in the natural characters of men, unformed by custom or education, such as we see them in children; and we cannot doubt, but there is the same diversity among men altogether in the natural state. But there cannot be virtue, properly so called, till after man is become a rational and political animal; then he shews true courage, very different from the ferocity of the brute or savage, generosity, magnanimous contempt of danger and of death; friendship and love of the country, with all the other virtues which so much exalt human nature, but which we can as little expect to find in the mere savage as in the brute, or infant of our species.

† Fertur Prometheus addere principi
Limo coactus particulam undique
Defectam.

Hor. lib. 1. ode. 16.

It was in this way, that antient wisdom chose to express the wonderful variety of our species.

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This is my system of human nature in the state wherein we see it at present. (for I speak of no other, nor of any supernatural assistance that may be given to man); and if any person can invent another that does more credit to our nature, and separates, more perfectly, the nobler part of us from body and mere matter, I shall freely give up mine, and acknowledge I did wrong in publishing it, whatever my private sentiments might have been: For I hold it to be of the utmost consequence, for the good of society, to keep up our ideas of the dignity of our nature, even if they were no more than a delusion.

C H A P. XIV.

Another objection answered, arising from the Institution of Marriage.—That Institution not Natural, but Political or Religious.—This proved both from Theory and Fact.

IT may also be objected, That, in this account which I have given of the origin of society, I have said nothing at all of the first of all human societies, namely the family-society: That this society must have been formed as soon as the human race began, for the sake of the education of the offspring: That it is a sort of civil society in itself, in so far as there is a king and governor in it, viz. the husband and father, and there must be some business jointly carried on for the support of the family: That out of this little patriarchal state have grown, as I admit, greater communities, which in process of time have formed nations and civil societies, in the strictest propriety of the word;

and that, in this way, language and the other arts of life would be very soon invented. So that, it is not necessary to take such a round as I have done, and to make the invention of them so operose a business.

Before I come to make a particular answer to this objection, I must enter a caveat against the manner of reasoning, which I observe is very common on this subject. In the first place, an hypothesis is laid down, that man was from the beginning, in all ages and nations of the world, the same, or nearly the same, with what he is at present in Europe, or other civilized parts of the world. For it is a maxim, constantly in the mouth of such reasoners, that human nature is and always has been the same. And, secondly, supposing this maxim to be undeniable, they argue, from the manners and customs of such men as we are; and, because such and such institutions are practised by civilized nations, they conclude, that they must have been always in use, and as old as the human race.

If this be good reasoning, there is no room for any farther inquiry in this matter: But we must at once conclude, that men were from the beginning rational and poli-

tical, as we see them now in Europe, and that they had language, and I think, for the same reason, every other necessary art of life, as soon as they were men. But I think I am at liberty to set hypothesis against hypothesis, and to suppose, that man, so far from continuing the same creature, has varied more than any other being that we know in nature. And, tho' his nature may in some sense be said to be the same, as he has still the same natural capabilities that he had from the beginning; yet this nature is, by its original constitution, susceptible of greater change than the nature of any other animal known. And that, in fact, it has undergone the greatest changes, is proved, I say, first from the general history of mankind, by which it appears, that there has been a gradual progress in arts and manners among the several nations of the earth, whose history has been handed down to us; and, secondly, from particular relations of the customs and manners of barbarous nations, both antient and modern. If this be so, then my system is founded not upon hypothesis, but on the history of man, collected from facts, in the same manner as we collect the history of any other animal: Whereas, the contrary sys-

tem is mere hypothesis, not only unsupported by facts, but repugnant to them.

Having premised this observation, I will now proceed to examine the argument urged against me, from the institution of marriage and domestic society; and will endeavour to show, that it is not from nature any more than civil society. And first, I will consider the thing *a priori*, and from theory merely; and then I will consider, how the facts agree with the system which I shall thence form.

And, in the first place, if it could be proved, that it was absolutely necessary for the continuation of the human species, that the men and women should pair as the birds do, and continue together in society till the offspring be reared, and able to provide for themselves; I should think it would follow, of necessary consequence, that it must in fact have been so, when the human race first began; but the contrary of this supposition I hold to be the truth. For I think it is certain, that, in the natural state, the care of the mother alone is sufficient to rear the offspring in our species, and to provide for them, till they be able to provide for themselves, which is a much shorter time among

savages, than among civilised men. For, as the savages have more health and vigor than we have, so also their children are stronger, and abler to do for themselves at the age of three, than our children are at the age of five or six. Mr Byron, in the account that he has given us of his shipwreck with Captain Cheap, tells us, that he has seen children of three years old upon the coast of Patagonia, go upon hands and feet, upon the rocks and breakers, and plunge into the water, without any hurt or dread of those stormy seas. Other travellers tell us, that the children of the Orang Outangs cling to their mother with their hands and knees, and in that way they are carried off by the mother, from the pursuit of those who want to catch them *. And it is a fact that cannot be de-

* See Purchas's pilgrims quoted by Mr Buffon, vol. 14. of his natural history, pag. 48. et 49. &c. also what I have related above, of the child of a woman by an Orang Outang, which, immediately after it was born, began to run about.

Mr Buffon, in his natural history, has told us, that there is no animal so weak as man when he is new born; that he has not then even the power of motion, so as to be able to search for and find out the breasts of his mother, but must be applied to the breast, and have the nipple put into his mouth; vol. 4. p. 37. et 97. And other modern authors, as well as Mr Buffon, have made a subject of declamation of this

nied, that the negroe women are not hindered, by the care of their infant children, from doing any sort of work, and so providing both for themselves and their offspring. The fact therefore being directly the contrary of what is supposed, the contrary conclusion seems to follow, that, as it is not necessary for the propagation or education of the species, that man should be monoga-

miserable helpless state of man, compared with that of other animals when he first comes into the world. But all this proceeds upon a supposition, which I hold to be absolutely false, that the natural state of man is the same, or little different from that in which we now see him, in the several countries of Europe. The same authors, proceeding upon the same mistake, will no doubt suppose that man, in his natural state and native country, I mean the warm climates, is no bigger, stronger, healthier, or longer lived, than he is at present. And accordingly, Buffon has said, that we are more subject to infirmities than other animals, *ibid.* p. 49. Whereas the truth is, that there is no animal stronger for his size, healthier, or, I believe, longer lived, than man in his natural state is; nor should such accusations be brought against nature, as if she had erred so much in her chief workmanship here below, as to make man more liable to diseases than any other animal: The fact no doubt is true, that man is at present more liable to disease, than any other animal; but the blame ought to be laid where it truly lies, upon bad manners and institutions, and the many ingenious arts we have invented for the destruction of our bodies, not upon God and nature.

mous, as Linnaeus has expressed it, therefore he is not so by nature; but in the natural state propagates as horses, sheep, oxen, and almost all the quadrupeds do. For nature does nothing in vain; and it is a rule which I believe suffers no exception, that nothing is natural to an animal which is not necessary, either for the preservation of the individual, or the continuation of the species.

It appears, therefore, that, so far as we can judge by the nature of the animal, marriage is a political and religious institution, not from nature. And this is confirmed by what we observe in those specieses which come the nearest to the human, such as monkeys, apes, and baboons, who propagate in the same manner as the quadrupeds above mentioned*.

* This is not affirmed by any traveller, or any natural philosopher, so far as I know. But their silence upon this subject is to me proof sufficient, joined with the reason above mentioned, that they do not pair; for, if they had propagated in a manner so uncommon among all animals, except fowls, it is hardly possible, but that they would have taken notice of it.

Linnaeus, I observe, mentions an animal he calls *Lemur*; and which he seems to suppose to be of the monkey race, though, by the epithet he gives him of *Tardigradus*, one should hardly believe it. This animal, he says, is mo-

Thus we are to judge from theory or speculation merely, and the next thing we are to consider is, whether there be any evidence that can be depended upon, to prove, that, in fact, men did, at any time, propagate in that manner. And, I say, if any circumstance at all is allowed to be capable of proof concerning the original state of man, this must be allowed to be proved, that men, in that state, did propagate after the manner of the beasts I have mentioned. For, in this, all the testimonies both of antient and modern authors, who speak of the most savage nations, agree: And it appears to be the distinguishing characteristic of the greatest barbarity, that is, of the state nearest to the original state of human nature. It is a fact, attested as well as any fact of such antiquity can be, that Cecrops first instituted marriage among the Athenians, having found them, upon his arrival from Egypt, in that state of extreme barbarity, copulating

polygamous. If this be true, and, if the animal be really of the monkey kind, then it is an exception to the rule; but which confirms it, with respect to other monkeys, particularly those called *simias* by Linnaeus, which certainly come the nearest to our kind.

promiscuously like beasts, so that no man knew who his father was*.

It appears, therefore, that the first step towards civility, and the first act of government and legislation among men, was the institution of marriage; and, as it is of human institution, so, like other human institutions, it has assumed different forms, in different nations. For, in some nations, one man is allowed only to have one wife; in others, a man is allowed more, but the number is defined. In others, he is allowed, without distinction, as many as he can procure or keep. When the cohabitation of men and women takes this last form, it can hardly be called *marriage*, which, in propriety of language, is only *pairing*, such as is natural to certain races; but it may be called a *property* in women, secured to men by law, as well as the property of other things; so that, even at this day, marriage may be said not to take place in a great part of the earth.

At what particular period of the progression of society the institution of marriage began, is not easy to determine. It must, I think, have been different in different na-

* See more of this matter, book. 3. cap. 12.

tions; and, like other steps of that progression, must have depended upon various accidents, and circumstances, and particularly, the intercourse of the nation with other more civilized nations; by which, the progress of human things is advanced, and made to proceed faster than it would do in its natural course. But thus much in general I think we may venture to affirm, first, that, in the natural state, men did not pair, nor in any wise appropriate females to themselves, for the reason above mentioned, viz. that as that state can only exist in a country and climate, where men may subsist upon the natural fruits of the earth, and as in such countries, it is evident, that the female alone can rear the offspring, it would be a superfluity in nature to charge the male with any care of the offspring. Nor would the want of the appropriation of females produce so much disorder in this natural state, nor even in the first stages of society, as is commonly imagined. For, it is a certain fact, that among the barbarous nations, even such of them as, like the Indians of North America, have made considerable progress in civil life, the passion for women is not

strong, and, in the natural state, we cannot suppose that there would be any intercourse betwixt the sexes, except what was necessary for the procreation of the species. For nature gives to no animal an appetite or inclination that has not a tendency, either to the preservation of the individual, or the continuation of the species. Whatever is beyond that, and has for its object mere pleasure, is from vitious habit, and the effect of an unnatural manner of living †.

2do, Even in the first stages of society, men still continuing to live upon the natural fruits of the earth, I think, it is highly probable, there would be no marriages, because there would be no necessity for them; and I am persuaded, that, if we knew more than we do of the œconomy of the Orang Ou-

† It may be objected, that the monkeys, baboons, and even the Orang Outangs, are very lewd, and ready to fall upon our females at all times, when they can find them. But this does not prove that they behave in the same manner to their own females, unless we suppose that these, like our females, are always disposed to admit the male; a supposition which I think is extremely improbable. For we do not observe that the females of any species of animals, living in the natural state, have any inclination for the male, except at certain times, when it can serve the purpose of the propagation of the species, not of pleasure merely. Nor have the males, in such a state, any desire for the females, except at those times.

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tangs, or of those savages I mentioned, upon the banks of the river Gaboon in Africa, it would be found, that there is no such thing among them, any more than among monkies.

3^{to}, Further, it does not appear to me necessary that at first, when men began to subsist upon invented arts, such as hunting and fishing, they should immediately couple. For, tho' the mother, in that state of life, might not be able singly to provide for the offspring, till they were able to provide for themselves, we must suppose, that, when men agree together to carry on any common business, what is acquired in that way will be common to the whole society; and that, consequently, not only the mother, but her offspring, would get a share of it. We have not therefore any reason to doubt of the fact above mentioned, concerning the Athenians living without marriage in Attica, till Cecrops came among them, where certainly they could not subsist without arts.

But, 4^{to}, As society advanced, when the passions of men became stronger and more ungovernable, and after other things were appropriated, it became necessary to make a

property also of women. For then men,

—Venerem incertam rapientes more ferarum,

HORAT.

grew very troublesome and dangerous to one another; and besides, in such circumstances, the offspring would be best reared by the joint care of both parents. If the society was then upon a footing of equality, as it happened in Attica, and among the tribes in North America, it would be a proper marriage of one man to one woman: But, if a superiority was assumed by some of the society over the rest, as appears to have happened in many countries of the east, polygamy would be established.

After a herd of savages was thus divided into families, the patriarchal government began, every family becoming a little state, and carrying on by itself the business of subsistence, only uniting with other families of the herd, upon extraordinary occasions; such as that of war offensive or defensive. In this way, the Cyclops lived, as they are described by Homer †, and many of the inhabitants of Chili live at this day ‡. These

† *Odyss. lib. 9. v. 112. et seq.*

‡ See Frezier's voyage to the South-Sea.

families increasing, became in process of time little tribes, and such I imagine was the origin of the *δῆμοι*, that is, little societies or corporations, into which the people of Attica were originally divided. And these families or tribes, either joining with others, as we have seen happened in North America, or keeping by themselves, and increasing very much, have grown into great nations, which was the case of the family of Abraham.

Having thus endeavoured to answer the objections that may be made to my system, I will here conclude this second book, in which I have endeavoured to shew, that though society be absolutely necessary for the invention of language, yet language is not necessary for the constitution of society; and having thus prepared matters for the invention, I proceed, in the next book, to shew in what manner it probably was invented, and of what nature the first languages were.

B O O K III.

C H A P. I.

What was required for the Invention of Language, besides the Constitution of Society.

IN the preceding book, we have placed man in a state of society and of political union, carrying on, of common consent, and with joint labour, some work necessary for defence, or the support of life. In this situation, and this only, could language have been invented. But more was necessary for the invention of so difficult an art. And, in the *first* place, The proper organs of pronunciation were indispensably required. These are given to some few animals besides man; but I believe they are in none so perfect.

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2dly, They must have been a very long time in this political state; so long at least as to have improved into an art the business they were carrying on: By which I do not mean to require, that they should have been regular artists, knowing the causes and principles of their art, and operating by certain rules which they could demonstrate from those principles; but my meaning is, that they must have improved their rude practice at first into a better, by observation and experience; and, in that way, have fixed a certain method of doing the thing, which, when it is done by degrees, and from observation and experience, may not improperly be called *art*. For, as I have already observed, one of the great differences betwixt instinct and art is, that what is done by instinct, is performed as well at first as at last; whereas art is necessarily formed by gradual improvements. In short, before man could have invented a language, he must have been perhaps for many ages in the same state the beaver is in, as I have described it above. For the beaver, of all the animals we know, that are not, like the Orang Outangs, of our species, comes the

nearest to us in sagacity, and, as I have already observed, appears to have some other principle of action besides instinct; of which there is a proof that I have not hitherto mentioned, arising from the form of their huts or cabins; which, as *Mons. Buffon* tells us, is not always the same; so that it would appear they have different opinions of things as well as we: Whereas instinct performs every thing in the same invariable manner. I am therefore persuaded, that the beaver did, from experience and observation, the old teaching the young, learn the architecture of his dike and his hut, as we have learned our architecture and other arts.

3dly, Another thing absolutely required, as preparatory to the invention of a language, is, that men should previously have formed ideas to be expressed by language: For it is impossible to conceive a language of proper names only without general terms. Now, ideas must have been formed by an animal, such as man, carrying on any common business, and operating, not by instinct, but learning by observation and experience. For such an animal must have an idea of

the end for which he acts, and of the means of attaining that end. For, as I have shewn, every animal that does not act from instinct, like the bee or the spider, must act with knowledge of the end. Besides, man, in the state in which I have described him, must necessarily have had ideas, however imperfect, of trees and animals, and other objects, with which he was conversant: And he must have had more perfect ideas of the instruments of art which he used; especially if they were of his own invention.

Lastly, It appears to me to have required an extraordinary degree of sagacity, to invent so artificial a thing as speech; nor do I think that there is any animal other than man yet discovered, unless perhaps it be the beaver, that has sagacity enough to have invented it: For, however easy the invention may seem, now that it is discovered, and so commonly practised; yet it was truly far from being obvious, but, on the contrary, very far removed from common apprehension. For, in the *first* place, Man, as we have seen, does not naturally form articulate sounds; but, on the contrary, it is a great work of art, difficult to be learned even after it is invented, but infinitely more dif-

ficult to be invented. *2dly*, Suppose this first difficulty got over, and articulate sounds invented, it was by no means an obvious thought, to apply them to the expression of ideas, with the greater part of which they have no connection, at least that is easily discovered; for, though there be words expressing certain sounds, which are imitations of those sounds, it is certain that by far the greater part of words are not natural signs of ideas. And how is it possible they should? For what natural connection is there betwixt the idea of a tree, *ex. gr.* the earth, the sun, the moon, and any articulation of sound? And indeed the making ideas in this way *audible*, appears to me to have been full as great a refinement of art, as the so-much-boasted discovery of making sounds *visible*, I mean the invention of alphabetical characters; and so much the more wonderful, that it was invented in a much earlier age of mankind. And it must appear still more wonderful, when we consider, that it is not the only method of communication, and therefore not absolutely necessary for the purposes of political life; but that there are other methods, as we have seen, which in great part answer those pur-

poses, and with which accordingly other animals that live in the political state, as well as man, remained satisfied. Of these other methods we are now to speak more particularly, in order to try whether from these we cannot trace the progress to the invention of language.

C H A P. II.

Of the several Methods of Communication in Use among Men before the Invention of Language.

THERE are four ways by which men could communicate together, before the invention of speech: *First*, *Inarticulate cries*, expressive of sentiments and passions; *2dly*, *Gestures*, and the expression of the countenance; *3dly*, *Imitative sounds*, by which audible things may be expressed; and, *lastly*, *Painting*; by which visible objects may be represented. The two first are common to us with the brutes; the two last are peculiar to man; and all the four may be said to be *natural*

signs of what they express; for even the connection betwixt inarticulate cries and the things expressed by them, though it appear to be the most remote, is so established in nature, that it is understood by every animal, without any previous compact or agreement.

Of those inarticulate cries there is a very great variety; and it is really surprising how many different passions, such as love, joy, anger, grief, fear, the brutes express by them; and I am persuaded, the nearer the œconomy of any of them comes to ours, the greater variety will be found in their cries, because they have the more to express by them. The Russian academicians say, that the *sea-cat* above mentioned, which has so much of human nature in it, can howl like a cow, growl like a bear, and chirp like a cricket, which last is a song of triumph after he has vanquished his enemy*; and if the beaver living in a social state were accurately observed, there would be found a great variety of this kind of language among them. When the brutes are tamed, and become familiar with us, they acquire voices and tones that they had not before. Thus, Por-

* *History of Kamtschatka, p. 128.*

phyry the philosopher tells us, that his partridge learned to converse with him in a voice very different from what she used in communication with her fellows *; and some of them, as it is well known, may be taught to articulate. But it is evident, that all this variety of cries, though it were much greater than it really is, could not answer the purposes of human life, when it came to be enlarged and extended to many different arts and occupations, which the growing wants of men rendered necessary.

The *next* kind of expression I mentioned was that of *looks* and *gestures*, which is also very strong and various among the brutes, and it is a language which they perfectly well understand. The only use they make of it is to express their passions and feelings; but we know certainly, from the example of dumb persons among us, that it may be used to express ideas: And we learn from history, that they may be expressed in this language with the utmost accuracy and precision; for in Rome there was an art of this kind formed, called the *pantomime* art, which was brought to the utmost perfection about the time of Augustus Cæ-

* See before, *book* 1. *p.* 148.

far *. An artift of this kind could exprefs by figns, not only every fentiment and paffion of the human mind, but every idea, with as great accuracy, and as great variety too, as any orator could do by words; and it is a noted ftory of Rofcius the player in Rome, that he ufed to contend with Cicero, which of them could exprefs the fame thing, he by looks and gellures, or Cicero by words, with the greateft variety and copioufnefs.

There can be no doubt that, before the invention of language, this kind of expreffion, as well as the other by inarticulate cries, would be much ufed. That favage nation which Diodorus Siculus, in the paffage I quoted before, calls the *Infenfibles*, converfed in no other way; and the favages in North America do at this day fupply the defects of their language by a great deal of action and gelluculation. But it is impoffible to fuppofe, that this art of fpeaking to the eyes could be brought to fuch perfection among favages as it was by Rofcius at Rome, or by the pantomimes in after times, who *danced* whole theatrical pieces, according to the expreffion in antient language; that is, represented them by gellures and movements.

* See Lucian, Περὶ ὀρχηστικῆς.

performed to music, without one word being uttered *. Even in Greece, where all the other arts of pleasure and entertainment were cultivated, and brought to the highest degree of perfection, the art of the pantomime was not carried so far as in Rome. For, although their players did no doubt express a great deal by their action, particularly in the movements of their choruses, and their monodies, there was no such thing, as far as I can learn, practised among them as dancing a whole piece, or even acting a single monody, without speaking; at least not in the better days of Greece. For in the later times it is not improbable that they may have adopted the pantomimes of the Ro-

* Before the Romans had pantomimes, their actors, such as Roscius, played certain parts in dumb show. Those parts were the monodies, or *cantica*, as the Latins call them, which were soliloquies spoken *in recitativo* to music. In such parts of the play the actor among the Romans only gesticulated, and expressed the sense by his action, that is, *danced*, as they called it, while another *sung*, or pronounced the words to music: So that it was only in the *diverbiium* or dialogue that the Roman actor used his voice. How this strange custom of dividing the acting and speaking, such as never was practised in any other nation, as far as I know, came to be introduced among the Romans, Livy has informed us, *lib. 7. c. 2.*

mans; and Lucian appears to me to speak of it as an entertainment among the Greeks in his time*.

* I have often wondered, that Horace, in his epistle to Augustus, where he flatters that prince so much as to compare the arts of Rome in his time to the arts of Greece, in these lines,

Verimus ad summum fortunæ; pingimus, atque

Pfallimus, et luctamur Acibiris doctius unctis,

does not mention this *pantomime* art, which I believe was the only one in which the Romans of those days excelled the Greeks. And this perhaps was one of the reasons which made the people of Rome so passionately fond of it: For as to painting and music, mentioned by Horace, I cannot believe that there was the least degree of comparison betwixt those arts, as practised in Rome, and as practised in Greece; and particularly, as to painting, the Romans, as far as I know, never produced either one good painter or statuary. And, with respect to wrestling, as the first *palestra* in Rome was, as I remember, no earlier than the days of Augustus Cæsar, I think it is hardly possible that the Romans should all of a sudden have become such expert wrestlers. As therefore he flatters Augustus so much at the expence of truth, I can assign no reason why he omitted this pantomime art, in which he might have truly said the Romans excelled the Greeks, except that he did not esteem it, either as a useful art, which it certainly is not among persons who can understand one another by language, or of any natural grace and beauty. And indeed it appears from what Lucian says in his dialogue upon dancing, that the men of gravity and correct taste condemned this mimical representation, as fit only for the lower sort of people.

So far from being brought to this state of perfection among savages in the first stage of humanity, I am persuaded it would not go the length of serving the purposes of common intercourse, where there was any number of wants to be supplied by mutual assistance: Or, if we could make so wild a supposition, as that it would be carried to the same degree of perfection as in the polite age of Augustus, still it is in sundry respects far inferior to the method of communication by speech; for, first, it speaks only to the eyes, so that it can be of no use but in the light; and then we cannot converse in that way at such a distance as by words, which alone makes it a very improper vehicle of our thoughts in carrying on any business without doors, such as fishing and hunting, which are the chief occupations of savages.

The *third* method of communication I mentioned was by *imitative or mimic sounds*, which, I doubt not, was practised before the invention of language, as it has been since; but the expression of it could not go any great length; no farther than to denote sounds, or objects which were distinguished

by particular sounds, such as beasts and birds of different kinds.

As to the *last* method I mentioned, *painting*, or delineating any object by drawing the figure of it, it may have been used before the invention of language; but it could go no farther than to communicate the notion of visible objects; and, besides, it is of slow and difficult practice, and not at all of so ready use as language.

Of these four ways of communication, it is plain, that only two have any connection with language, viz. inarticulate cries and imitative sounds, which are both modifications of the human voice, as well as language, and could alone lead the way to the invention of language. And we are now to inquire, whether, from one or other, or both of these, that invention can be traced.

C H A P. III.

Whether there might not be a Language of Music singly, without any Articulation.

BUT there is a third modification of the human voice which deserves to be considered before we proceed further, and that is musical modulation. There is an ingenious man, an acquaintance of mine*, that has bestowed a good deal of thought upon this subject, who conjectures, that the first language among men was *music*, and that, before our ideas were expressed by articulate sounds, they were communicated by tones, varied according to different degrees of gravity or acuteness : For he considers language to be of so difficult invention, that it could

* The man I mean is Dr Blacklock of Edinburgh; a person of great genius, and wonderful learning, if we consider that with him knowledge is shut out at one of its principal entrances; for he has been blind since his infancy. He is well known by several ingenious works that he has published, both in prose and verse.

not have been attained to at once, without trying every more obvious variation of the voice, such as that of musical tones, which we first learned by imitation of the birds; and, having in that way become musicians, it was natural enough to think of applying the variation of tones to a purpose of utility as well as pleasure, namely, the communication of ideas. And he adds, that, when it was found necessary to enlarge the expression of language by the addition of articulation, the tones were still preserved.

The thought, I own, is very ingenious; and thus far it is supported by fact, that I believe all the antient and original languages, without exception, have a great deal of accent or tone in them †; and the want of such tones is but a modern corruption of language, of which I shall have occasion to speak afterwards. Thus the Greek has its

† I use *accent* in the antient sense of the word, to signify a musical modulation of the voice, by which it is made higher or lower with respect to gravity or acuteness. This is the meaning of the Latin word *accentus*, and of the Greek *ᾠδή*. Whereas the word in English has a sense very different, denoting only the elevation of the voice upon one syllable of a word above the rest, without any change as to gravity or acuteness.

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tones, by which one syllable of a word is raised above another in respect of acuteness; and the interval has been marked by their grammarians, as I shall explain more particularly in the sequel of this work. In the Latin language likewise there are the same tones, though with some variations with respect to the syllables upon which they are placed. The Chinese, which, though an imperfect language, is certainly a very antient one, and, for that very reason, it is likely, so imperfect, is full of tones, insomuch that sometimes the same monosyllable signifies nine or ten different things, according to its different accents. The indians too in North America, as I have been informed by gentlemen who have studied their languages, have tones by which they make the same word signify different things, of which they have given me instances; and particularly one of those nations, the Hurons, according to the account given us of their language by Gabriel Sagard, an author whom I shall have occasion frequently to mention in the sequel †, supply the defects of their language,

† This *Gabriel Sagard* was a religious of the order of *St Francis*, who was sent on a mission to the country of the Hurons in the year 1626, and published his travels at

particularly the want of tenfes, perfons, numbers, and genders, by accents only *. These facts convince me, that the variation of the human voice by tones or mufical modulation was, if not prior to language, at leaft coeval with it; for which reafon it is taken into the

Paris in the year 1631, under the title of *Le Grand voyage du pays des Hurons, &c.*; to which he has added a dictionary of the Huron language, with a preface to it, containing many particulars concerning that language. The book is extremely rare, and, before publishing the first edition of this volume, I could only hear of two copies of it; one in the *Museum* at London, and another in the French King's library in Paris. This laft I had the ufe of by the favour of *M. Caperonier*, the keeper of that library, who was fo obliging as to allow me the privilege of taking it out of the library, and keeping it for fome weeks by me. It was the perufal of this dictionary and the account of the language prefixed to it, that firft made me think of this work; in which, if the public finds any thing entertaining or inftructing, they owe it to the politeneis and obliging difpofition of *Monf. Caperonier*, to whom I take this opportunity of returning my fincere thanks. Since the firft edition was published, I have had the ufe of it from *Dr Robertfon* of Edinburgh, who has got it, among other curious and rare books that he has collected in relation to America, in order to make the work that he is about to publifh upon that country as inftructive and entertaining as his other works.

* The Jefuit *Sebastian Rafles*, who was miffionary in Canada in 1723, fays the fame thing of the Huron language; for he tells us, that the fame word has different fignifications according as it is differently accented; *Lettres Edifiantes, vol. 23, p. 213.*

composition, and made a part of all original languages; and yet I dare not venture to affirm, that there ever was a language of singing merely, before there was a language of speaking. And I should rather incline to think that there was not. One thing at least is certain, that such a language would be altogether insufficient for the purposes even of savage life: for the music of savages is of very small compass; that of the Hurons, according to a specimen of it given by the author I just now mentioned, does not rise above a fourth, the ordinary compass of the music of the birds, from which, in all probability, it was copied †. And we know, that the antient Greek lyre had no note above a fourth, nor any interval so small as a semitone, which is also the case of the Huron music. There must there-

† The tunes which the birds sing are very high set, that is, the fundamental note is very high, compared with any of the notes of our music. The lowest note of a linnæus, for example, is much higher than any note we can sound upon any instrument. But then they rise by very small intervals, so small as to be hardly distinguishable by our ears, very seldom higher than a *fourth*, commonly not above a *third*, as I am informed by the gentleman above mentioned, Dr Blacklock, who has the finest ear perhaps of any man living, and has observed with particular attention the music of the birds.

fore have been in such a music so little variety of expression, that I can hardly believe it ever was used as a language.

Quitting, therefore, this hypothesis, we must try if we can deduce language from inarticulate cries, or imitative sounds.

C H A P. IV.

That Language arose from natural inarticulate Cries.

WITH respect to mimic sounds, I am of the same opinion as with respect to musical notes, that there never was a language entirely, or even for the greater part, composed of them; and I am confirmed in this opinion by observing, that there are no such words, at least as far as I have observed, in the barbarous languages; so that I am disposed to believe, that the framing words with an analogy to the sound of the things expressed by them,—*verba ex sono facta*,—as the grammarians call them, belongs rather to languages of art, than to the first languages spoken by rude and barbarous na-

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tions. It is therefore inarticulate cries only that must have given rise to language; and, as every thing of art must be founded on nature, it appears at first sight very probable, that language should be nothing but an improvement or refinement upon the natural cries of the animal, more especially as it is evident, that language does no more than enlarge the expression of those natural cries: For such cries are used by all animals who have any use of voice to express their wants; and the fact is, that all the barbarous nations have cries, expressing different things, such as, cries of joy, grief, terror, surprise, and the like. The *war-cry* of the Indians of North-America is well known to those that have been among them; and they have a cry, when they return from any expedition, by which they signify, before they enter their village, what success they have had. The savage girl, whom I have so often mentioned, entertained me with several such cries belonging to her nation; and she told me, that, while she was travelling through the woods with the negro girl who had escaped the shipwreck with her, as they did not understand one another's language, they conversed together by signs and cries; and in

that way they understood each other so well, that they made a shift to live upon what they could catch hunting together. These two methods of communication were undoubtedly the first used by men; and we have but to suppose a great number of our species in the same situation as those two girls, carrying on some common business, and conversing together by signs and cries, and we have men just in a state proper for the invention of language. For, if we suppose their numbers to increase, their wants would increase also; and then those two methods of communication would become too confined for that larger sphere of life which their wants would make necessary. What then was to be done? I have shewn already that signs alone would not do, unless they were to acquire the pantomime art, which cannot be supposed. The only thing then that remained to be done was, to give a greater variety to the natural cries. The question then is, What sort of variation was first made upon them! And here I agree with Dr Blacklock, that, as the natural progress is from what is easy to what is more difficult, they would first make the more obvious and simple variation by tones, before they distin-

guished them by the more difficult operation of articulation. And I am the more inclined to be of this opinion, that I observe a difference of tone in the natural cries of other animals, of which I have no doubt but a skilful musician could mark the intervals: So that, though I cannot agree with the Doctor, that there ever was a singing language, entirely composed of different musical notes; yet I think it is highly probable, that the natural cries were varied by tones, before they were distinguished by articulation.

But this variety, as I have observed, could not go far, and, therefore, another method of variation was to be thought of. And, being advanced so far, it was natural that so sagacious an animal as man should go on farther, and come at last to the only other variation remaining, namely, articulation: For that there was such a progress in the formation of language, as in all other things belonging to man, I cannot doubt; and I am persuaded, that the most barbarous and imperfect language extant is at the distance of many stages from its first origin.

The first cries that would be articulated were probably those by which animals call upon one another, and exhort or command

one another to do certain things: For such cries are necessary in carrying on any work by joint consent, such as we must suppose men to be engaged in before a language could be invented. And the first articulation must have been very simple, the voice being broken, and distinguished only by a few vowels and consonants, but not so exceedingly diversified by various articulation as we see it is in the languages of art: For if in any thing the progress of man was slow, and from small beginnings, it must have been so in the invention of this most difficult art.

Further, as all natural cries, even though modulated by music, are from the throat and *larynx*, or knot of the throat, with little or no operation of the organs of the mouth; it is natural to suppose, that the first languages were for the greater part spoken from the throat, and that what consonants were used to vary the cries were mostly guttural; and that the organs of the mouth would at first be but very little employed.

And this theory of mine is confirmed by what the above mentioned author, Gabriel Sagard, tells us of the language of the Hurons, of which I shall make much use in this

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inquiry, because it is more imperfect, and, therefore, nearer to the origin of the art, than any language, so far as I know, that has hitherto been discovered. He says, that they have a form of address or salutation, which is no more than a vocal cry asperated, that is, pronounced from the throat. It is *Ho, bo, ho* *; and, in calling upon one another, they use the sounds *Hi, ha, and balouet*, which are very frequent in their songs, when they call upon one another to be merry; and it may be observed, that we have in our language words of much the same signification, such as, *Hollow, balloo, buzza, whurra*, and such like, which are no other but cries, calling or exhorting a little articulated.

This author also informs us, that they have but very few consonants in their language; and, particularly, they want the labial consonants, such as *b, p, f*; the consonants *v, m, n*; and even the vowel *u*, because it is pronounced by the lips; and, with respect to the consonants of this kind, La Hontan says the same thing, and he adds, what indeed is a necessary consequence, that they never shut

* Sagard says, it is a salutation of joy, expressing the pleasure they have to see you; p. 106. of his travels into the country of the Hurons. And it no doubt, was originally an articulate cry, expressing that passion.

their lips in speaking *; which is the case of every animal that utters only natural cries. Neither have they the lingual consonants *g* and *r*; and accordingly, our author tells us that they could not pronounce his name, *Gabriel*, otherwise than *Aicuiel*: For it seems that, though they have not the pure vocal sound *u*, which I take to be that of the French *u*, they have such as come near to what is expressed by the diphthongs *eu* and *ou*, which last is also used in setting down their words. In short, the consonants they mostly use are gutturals, such as *k*, *q*, *x*; and they make very much use of the aspirate *h*, which is also pronounced from the throat; and La Hontan says, that almost all their words have a very strong aspiration †. And their language, upon the whole, seems to be little better than animal cries from the throat, of different tones, a little broken and divided by some guttural consonants. And with this account of the Houron language agrees perfectly the account which the wild girl I have so often mentioned, *Mademoiselle le Blanc*, as they call her in France, gave me

* *La Hontan's Travels in North America*, vol. II. p. 219.

† *Ibid.* p. 220.

of the language of her country ; and which, for any thing I know, may be a dialect of the Huron language : For she said it was all spoken in the throat ; and that there was no use of the tongue or lips in it ; and, to convince me that it was so, she pronounced some words that she remembered of it.

From this account of the origin of language it appears, that the first sounds articulated were the natural cries of men, by which they signified their wants and desires to one another, such as calling one another for certain purposes, and other such things as were most necessary for carrying on any joint work. Then in process of time other cries would be articulated, to signify that such and such actions had been performed, or were performing, or that such and such events had happened relative to the common business. Then names would be invented of such objects as they were conversant with. This increase of words would make more articulation necessary. And thus the language would grow by degrees ; and, as it grew, it would be more and more broken and articulated by consonants ; but still the words would retain a great deal of their o-

original nature of animal cries. And thus things would go on, words still multiplying, till at last the language became too cumbersome for use; and then art was obliged to interpose, and form a language according to rule and method; of which we shall endeavour in the sequel to give some account; but in the mean time we must explain more particularly the nature of those first-invented languages, which the necessities of human life produced without any art at all.

C H A P. V.

General Observations upon the first Languages.—Division of them into the Matter and the Form.—The Nature of Articulation, and the Division of elemental Sounds into Vowels and Consonants.

BEFORE I enter into particulars upon this subject, I will make one or two general observations. And, *first*, In such languages as I have described, being nothing but the natural and instinctive cries of

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the animal, a little varied and distinguished by articulation, no art or regularity can be expected. And accordingly Sagard tells us, that the Huron language is so very imperfect and irregular, that it is impossible to form a grammar of it; that is, to reduce it to any rule. *2dly*, A consequence of this is, that those languages can have no standard, or any thing fixed and established in the use of them, such as we see in formed languages; but must be differently spoken by the different families or tribes of which the nation is composed, and must also be constantly changing and fluctuating: For it is art only that gives any constancy or stability to practice; which, till the art be invented, must be various and capricious. Thus, till the *orders* were invented, and *architecture* formed into an art, every man built his house according to his own fancy; and even in nations where there appears to have been some taste of building established, as among the Goths, it is remarked in their buildings, that there are no proportions constantly observed, nor any uniformity in the ornaments, no capital of one pillar being exactly like another, nor any two doors or windows or-

namented in the same manner. In music likewise, till it became an art, there could be no regularity or uniformity in the compositions, as may be seen in the music of barbarous nations. In painting also, and sculpture, till they were formed into arts, and the standard of beauty fixed, as it was among the antients, the taste of beauty would be as various as the untaught fancies and apprehensions of the several artists, as we may perceive with respect to the painters and sculptors among us who have not formed their taste upon the antient models. And in this very matter of language, Gabriel Sagard informs us, that hardly any one village of the Hurons speaks the same language as another; nay, two families of the same village do not speak exactly the same language. And he further tells us, that it is changing every day, and is already so much changed, that the antient Huron language is almost quite different from the present*.

But, in order to consider more particularly the nature of those primitive languages, we must return to the division of language, with which we set out, into its *matter* and

* Sagard's preface to his Dictionary, pag. 9.

form. And I will begin with the *matter* of the languages of savages; that is, the sounds of which they are composed: With respect to which I have anticipated a good deal of what I had to say, in the account I have given of the origin of them; and I hope what I have further to say, will naturally follow from that account. But first I must say something in general of articulation; for it is that which distinguishes language from any other sound.

The breath which comes from the lungs, and passes through the wind-pipe, is the subject-matter both of singing and speaking. In singing, this breath is modified by different contractions and dilatations of the wind-pipe, and of the *rimula*, or little hole of the *larynx*, which produce the several degrees of gravity and acuteness of sound, such as form the different notes of music. After the breath is passed the larynx, it receives a further modification by the several positions and actions of the several organs of the mouth, such as the tongue, the teeth, the palate, and the lips; to which also we may add the throat and the nose, which have a great share in the pronunciation of some

languages, and more or less in the pronunciation of all. The alteration made by those organs upon the voice is what we call *articulation*; a metaphor taken from the *articuli* or joints of the limb of any animal; for as these divide the limb into parts, so articulation breaks and divides the continuity of the voice, which otherwise would go on in the same tenor, without any distinguishable parts. And it is in this way that all the variety of sounds is produced, by which men have been enabled to express their conceptions, and to mark every one of them by a different sound. To analyse all this variety of sound into its several elemental parts, was a work of art, of very great difficulty, which certainly was not performed by the first savages who spoke, nor for many ages after. What therefore we have to say upon this subject, we shall refer till we come to speak of languages of art. It will only be necessary, at present, in order to understand what follows, to observe, that some of these elemental sounds are produced by the position or configuration of the several organs, with little or no action of them, while others are produced by the action of those organs *. The

* This is observed by Dionysius the Halicarnassian in his most elegant and accurate treatise of composition,

first kind are called *vowels*, making a sound by themselves: For they are nothing else but the blowing of the breath with a tremulous concussion of the wind-pipe and larynx, (which is absolutely necessary in order to produce any sound), through the organs of the mouth in a certain position. The other class is called *consonants*; a name importing, that they cannot be sounded by themselves without the aid of the vowels. For it is evident, that the action of the organs alone can produce no vocal sound without the expiration of the breath, tho' it may make some kind of beating or chopping, which is the sound of that species of consonants they call *liquids*. The consonants therefore are nothing else but vocal sounds, or vowels modified and diversified by the several actions of the different organs of pronunciation.

And here we may observe how complex and difficult a business articulation is, tho' by constant practice it appears so easy. For, let us take the simplest syllable, which is

§ 14. where, in describing the pronunciation of the vowels, he has these words: *Εκφωνεῖται δὲ ταῦτα πάντα, τῆς ἀετῆριαις ὑποχουσῆς τὸ πνεῦμα, καὶ τοῦ ἑσπερῆτος ἀπλῆς σχηματισθέντος, τῆς τε γλῶσσης οὐδὲν πραγματευομένης, ἀλλ' ἁρμυζομένης.*

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that made by a single consonant and vowel, such as *ba*, or *ab*, there must be complicated together in the same enunciation, the blowing of the breath, with the tremulous concussion above mentioned; the position of the organs necessary to produce the vocal sound; and the action of the organs, by which the consonant is sounded: Which action must be either before or after the position of the organs forming the vowel, according as the consonant is sounded first or last in the syllable. But the business becomes much more difficult, when we compound vowels, making what we call *diphthongs*, and when we throw into the same syllable two or three consonants, as in the English word *strength*. In short, the more accurately and minutely we consider language, the greater the difficulty of the invention appears, and indeed the absolute impossibility of it, unless we suppose it to be invented by very slow degrees, from very small beginnings, and in a very long course of time.

C H A P. VI.

*How Men came to invent Articulation.—
That it was by Imitation of other Ani-
mals, on whom Nature had bestowed
that Gift.*

THIS business of articulation, which, by many, is thought natural to man, will, I am persuaded, appear to a philosopher, who considers the matter attentively, so exceedingly artificial, that he will think it the greatest difficulty, in my system, to account how men should ever have thought of making such an use of the organs of the mouth: And it is proper to try to remove this difficulty before I proceed farther upon the subject of the found of the first languages.

And, in the first place, it is evident, that this discovery was not made *a priori*, by which, I mean, that man did not proceed, as a philosopher would do now a-days, to consider the human voice as capable of variati-

on, by the three several ways of rhythm, accent or tone, and articulation ; and, having discovered that the two first ways were insufficient for the purpose of language, or, in other words, that there could not be a language of music only, they tried next what could be done by articulation. For, though men, by living together in society so long as I suppose they must have done, before this method of communication was devised, and by inventing other arts, must have acquired a great deal of sagacity, and formed notions of many things ; yet it is impossible to suppose them so much philosophers as to have proceeded in this way to the discovery of any thing, a way, by which very few of the greatest discoveries have been made, even among civilized nations. For, the fact truly is, that the greatest inventions in all ages of the world, have, like that of gun-powder, been fallen upon by chance * ; nor has art or science done more than improve such lucky

* See Lucretius, lib. 5. where he has given a very ingenious account of the various accidents, by which the use of fire and the several arts thereon dependent have been discovered.

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accidents. But by what accident could this so wonderful invention be discovered ?

It is an observation of Aristotle, that it is by imitation we first learn. Accordingly, our children learn to speak in that way ; and it is the want of imitation that makes the teaching of deaf persons to articulate so extremely difficult. Now, the first men who began to speak, were, in this respect, in the same condition as our deaf persons, in so far, at least, that they could hear no speaking. The more, therefore, we consider the matter, the more it seems difficult to account how men should at first have attempted to articulate. If this difficulty were got over, the rest would be easy. For, according to the common saying, *facile est inventis addere* ; and it cannot be doubted, that so sagacious an animal as man would, if he once had begun to articulate, bring it, in process of time, to the perfection in which we now see it.

It must have been, I think, one of two ways that men could have been led to try this artificial method of communication ; either the necessities of life must have obliged them to vary and enlarge by every possible way their inarticulate cries ; so that, at last, they fell up-

on the method of articulation, for which the organs of the human mouth have a particular aptitude, greater, I believe, than those of any other animal; or, what I think more probable, they were led to the discovery by the imitation of the articulate sounds of other animals. For there are other animals, and particularly birds, which utter sounds that may be called truly articulate. Such is the cuckoo among us; and which accordingly has its name from that sound. Such is the cochatoo, a West India bird, which likewise has its name from its cry. Such also is the crow, which utters a sound that may be called articulate, and from thence has its name in Greek, Latin, and English *. Now, man being the most imitative of all animals, not only by action and gesture, but by voice, in which, as I have shewn, the great difference betwixt his imitative powers, and those of

* The Greek name is *κορᾶξ*, perhaps the more ancient, was *κοραξ*, which is nearer the sound of the animal. The Latin is *corvus*, formed from the Greek by throwing in the digamma, after the usual manner, and changing the termination into *us*, more used in Latin. But there is an older Latin word for this animal, which comes still nearer the cry of it, namely, *Gracus* from whence comes *Graculus*; the Latin name for a jackdaw; and which Quintilian tells us, is formed from the sound of the animal.

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the monkey consists, it is natural to suppose that he would attempt to imitate those articulate cries of other animals ; and having organs fit for the purpose, would, at last, by repeated trials, succeed.

And that it so happened in fact, will appear very probable, if we consider that another art, namely music, which is only a different way of using the voice, was invented by imitating the birds likewise. This we are told by Lucretius * the poet and philosopher, whose testimony is the more to be regarded, that he was, as I have already observed, of that sect of philosophers of antiquity which dealt most in facts and observations, and, particularly, had studied very diligently the history of man, and of the origin and progress of arts ; and, what he says of the invention of music, was confirmed to me by what I learned from the wild girl that I saw in France, who told me, that the only music of the people of her country, was the imitation of the singing of birds †. Now,

* *At liquidas avium voces imitauer ore
Ante fuit multo, quam levia carmina cantu
Concelebrare homines possent, auresque iuuar.*

Lib. 5. v. 1378.

† See introduction to Book 2.

if it be true, as I suppose, that the first variation of inarticulate cries was by difference of tone, and that in this way the method of communication by sound was first enlarged, and something like a musical language formed by the imitation of birds, there is nothing more natural than to suppose, and indeed I think it must necessarily have happened, that they would carry the imitation of the birds still farther; and, finding that the difference of musical tones did not vary and distinguish their natural cries sufficiently for the purpose of speech, they added to those cries the further variety of articulation, which they would likewise learn from the birds; and so would form language: And, having once begun to distinguish their sounds of communication in this way, they would soon discover, that inanimate, as well as animated things, made noises that approached to articulation; and, by observing and imitating such sounds, they would enlarge their stock of words. Of this kind, are many words in different languages, and, particularly in English; such as *crack, snap, crash, murmur, gurgle*, and the like.

From this account of the matter, it should seem, that the primitive languages would be

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full of words imitating the sounds of animated, or inanimate things. If the fact were so, we might have expected to hear of it from travellers, and others who have given us an account of barbarous languages. But, among the many authors of that kind that I have perused, I have only found one French author, who says, that the Carribbee language, if I am not mistaken, abounds with words of that kind. And, when I looked into the vocabularies and dictionaries of those languages, I could find none that seem to be formed in that way; not even the names of such animals as utter cries that might be expressed by articulation. For example, in the Huron language, according to Gabriel Saggard's vocabulary of it, the name of a duck is *taron*; of a partridge, *acoiffan*; of a raven, *oraquan*; of a dog, *gagnenon*; of a grey fox, *andafatey*; a black fox, *babyüba*: Nor, in the words denoting actions accompanied with sound, can I perceive any relation to that sound.

The case then appears to be as I have supposed it, That men, at first, used inarticulate cries, to communicate their wants and desires, and to give the signals necessary for carrying on the business in which they were



engaged: That, in order to enlarge the expression of those cries, they varied them, first, by different tones, and then by articulation, which they learned from other animals; and, after they had learned to articulate, they did not for that give up the inarticulate cries *, but only varied and distinguished them by articulation. And, in this way, I shall endeavour to account for a property common to all barbarous languages, I mean the extraordinary length of the words. And thus, the natural and inarticulate cries con-

* A great many of these still remain amongst the North Americans. An officer of his Majesty's army, who had been in North America, and is a gentleman both of veracity and accurate observation, told me, that he was once upon a party with some Indians, one of whom called to woman that was at some distance with a loud voice, but altogether inarticulate; upon which the woman came towards them. This the officer observing, asked the Indian what he meant. He answered, that he wanted the woman should go along with them. The gentleman then told him that he did not desire her company, and thought they would be better without her; upon which the Indian uttered another cry, likewise inarticulate, but varied in tone; and, upon that, the woman went back. In this manner, I imagine, men have conversed together, perhaps for ages, before they made use of articulation; and, when at last they came to use it, it was only for the purpose of varying the natural cries still further than they had already done by musical tones.

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to be the ground-work, and the principal part of all languages, till men came to languages of art. Then they abandoned together the natural cries, and study-gave to those articulate sounds, of which they made use, some resemblance to nature of the things they expressed, they used such words as those above mentioned, expressing things having a sound that can be imitated by articulation.

Thus, I have endeavoured to shew, that invented articulation, as they did other such as weaving, building, and music, is in itself so much a kin to articulation, by imitation of other animals. In this way, I derived the art from nature, the archetype of all arts, and of every thing that is most beautiful among men; and I have laid the foundation of it upon that predominant quality in the human composition, which man is so eminently distinguished from all other animals, the power of imitation. And the more we consider the human mind, the more we shall be convinced, that nature has bestowed upon us this faculty in preference of many other talents which she has bestowed to other animals. We ought not,

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therefore, foolishly, to regret, that we have not from nature those talents; that we do not, for example, weave by nature like a spider, or articulate like a cuckoo; but we ought to be thankful, that she has given us what is infinitely more valuable, the faculty of imitating articulation, and every thing else in nature that we think worth our imitation, a gift which alone is much more than equal to all that she has bestowed upon other animals. And it would have been a superfluity in nature, such as we do not find in the rest of her works, if she had given to us articulation, or any thing else, which we have the faculty of acquiring for ourselves.

Having thus solved, as well as I can, what I think is the great difficulty in my system, I will now proceed to inquire farther into the nature of the founds of barbarous languages *.

* What I have said in this chapter, of the invention of articulation, I owe in a great measure to some hints that I got from a Scots gentleman of my acquaintance, Sir James Foulis of Colinton, who has thought a great deal upon the subject of language, and has taken the trouble of perusing with great care this first volume. He, as well as several others, was so good as to communicate his thoughts to me in writing; and by such correspondence, I flatter myself that this volume has not only been much

C H A P. VII.

Of the Matter of the first Languages.—That the Words of them are long, and full of Vowels.—Answer to Objection.

AS those who know no more of men than what is to be seen in the several countries of Europe, will form very false judgements of human nature; so they who have studied only the regular languages of art, without having recourse to the barbarous languages, which are so much nearer the origin of speech, will be apt to form an hypothesis concerning the sound of the first languages very different from that which I shall endeavour to maintain, and for which, I hope, I have already prepared my readers. They will suppose, that the first languages, being very rude and barbarous, as no doubt they were, would be crouded with consonants, enlarged, but considerably improved; and indeed it is only in this way that a work so new and of such curious and extensive inquiry can be brought to any the least degree of perfection.

and therefore of very harsh sound, like some of the northern languages in Europe, such as the German, and other dialects of the Teutonic. And, *2dly*, They will suppose, that the first languages consisted mostly of monosyllables, or very short words; and that it would be only in process of time that they were lengthened, and in consequence of the improvement of the grammatical art, by which composition, derivation, and inflection, were introduced into language. In short, they will be apt to imagine, that what we call now the *roots* of a language, were truly the original words, and at first the only words.

These suppositions may at first sight appear not improbable; but, if my hypothesis concerning the origin of language be well founded, the direct contrary of both suppositions is the truth.

And, *first*, With respect to the number of consonants in those primitive languages, it is the necessary consequence of my theory, that the words of such languages must have been very vocal, being nothing else but the natural cries of the animal, a little varied and distinguished by articulation. And from what we have said in the preced-

ing chapter, of the nature of articulation, it is evident, that the consonants, being formed by the action of the organs of the mouth, and consequently of much more difficult pronunciation than the vowels, which are founded by the simple position of the organs, it was impossible that they could be much used at first. And so difficult is the pronunciation of them, that, at this day, as was before observed, there is hardly any language to be found which has the use of them all, I know none, except the Greek; which, in this respect, as well as in every other, is the most perfect language that I am acquainted with*. And those who have not learned early in life to pronounce any consonant, even such as are of most easy pronunciation, cannot afterwards, without the greatest difficulty, be taught to sound

* By this I mean only to say, that the Greek has all the consonants commonly used in the languages of Europe. But I will not venture to affirm, that it has all the consonants which the human mouth is capable of pronouncing, or even all those that are actually used in the barbarous languages. I am well informed, that the inhabitants of *Ostacite*, the new discovered island in the South Sea, have a sound in their language betwixt *l* and *r*, which the gentleman who gave me the information could not pronounce, nor I believe any man in Europe.

them; as appears from what La Hontan tells us of a Huron, upon whom he bestowed four days to no purpose, in endeavouring to teach him the pronunciation of the labial consonants *, such a *b*, *p*, *m*, which are the first that our children learn to articulate. But, on the other hand, the five vowels are to be found, I believe, in all languages, though not all sounded in the same way in every language. For even the Huron language, though it have not, as I have observed, the pure sound of the vowel, *u*; yet it has the mixed sound of it in composition with other vowels, such as the diphthongs *eu* and *ou*. And the reason is very plain upon my hypothesis, viz. that the vowels are the simplest and the easiest modification of the natural cries, being a very small alteration of them, compared with what is made by the consonants; and the sound of some of them very much resembles the cries of certain animals.

If there were any doubt in this theory, which I think there is not, it is entirely removed by the fact. For all the barbarous languages that have hitherto been discovered, without exception of one, are full of vowels,

* *Vol. 2. p. 219.*

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with very few consonants. I have already mentioned the Huron language, the most original of any that I know; and to it I may add another language of North America, viz. the Algonkin *, and, in general, all such languages of North America as are dialects of either the Huron or Algonkin. The language of the Galibi, a people of South America †, affords another example: For in the language likewise the words are very vocal. A third example is furnished by the language of the Caribs, inhabiting the Caribbee islands, which appears to have a considerable affinity with the language last mentioned ‡. A fourth, by the language

* See a vocabulary of it in *La Hontan, vol. 2. p. 202.*

† These people live not far from the isthmus of Darien, in the country of Guiana, in South America; and the French have had a settlement among them for about a hundred years, which they have cultivated and improved much since the last peace. They have been at the pains to learn the language of the natives; and they have published a dictionary of it, and a kind of grammar, printed at Paris in the year 1763, collected from the observations of several persons who have been in that country. From that work I have taken what I have said here, and shall say afterwards, of that language.

‡ There is an account of this language, and of the people who speak it, published at Auxerre in the year 1665, under the title of *Dictionnaire Caraibe Francois*, by Father

of the Peruvians, as appears from the specimens of it given us by an author before quoted, viz. Garcilasso de la Vega's history of the Incas of Peru. A fifth instance is the language of the Esquimaux in North America, of which Mr Dobbs has given us a vocabulary, in the accounts he has published of the attempts to discover the north-west passage. And, lastly, the specimens that have been lately published of the language of the new-discovered island of the South sea, Otaheite, shew, that this language likewise is extremely vocal*.

Raymond Bretton, missionary in the *Caribbee* islands. He says, that the language spoken by the *men* in those islands is quite different from the language of the *women*. And the tradition is, that these islands were originally inhabited by a colony from Florida, but were invaded by a tribe of Galibi from South America, who destroyed all the males, but preserved the women, who still speak the language of Florida. For proof of this, our author says, that there still subsists an alliance and friendly intercourse betwixt the Caribs and Galibi. One *Davies*, who published an account of the Caribbee islands in the reign of Queen Elizabeth, gives the same account, if I am not mistaken, of the origin of that people. In this way our author accounts for the affinity which appears to be betwixt the two languages. His account of that of the Caribs is full and accurate; and I shall make a good deal of use of it in the sequel.

* This appears chiefly from the journal of Sidney Parkinson, Mr Banks's draughts-man, during that voyage,

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All those barbarous languages want many consonants, as well as that of the Hurons; but even of those consonants which they have, they never found two together in the same syllable. This is observed by Garcilasso de la Vega; who, after telling us, that the Peruvian language wants the consonants *s, b, d, f, g,* and *x,* adds, that, when two of the other consonants happen to stand together in the same word, they divide them in the pronunciation into different syllables. Thus they pronounce *roc-ro,* not *ro-cro.* And I have had occasion to observe, that a black that came from a country in Africa near to the settlement of Goree, when he was so old that he never learned English well, could not pronounce two mute consonants together; so that, instead of *stable,* he always said *table;* instead of *sconce, conce,* &c.

Thus we see, the progress has been from the use of single consonants in syllables to

who seems to have given particular attention to the language of the several nations among whom he was during that voyage. He has given us a vocabulary of the Otaheite language among others, where we have such words as *eace,* signifying the *neck;* *aiai,* the *armpits;* *foo,* the *nipples;* *coboo,* the *belly;* *meyooco,* the *nails,* &c.

the use of two or more. But is there not a further progress in this matter? And was there not a time when no consonants at all were used, and when the only articulation was by vowels? And indeed, when I consider the great difficulty of pronouncing the consonants, and of combining them in the same enunciation with the vowels, I think it is highly probable, that men did begin to articulate in that manner, and did not at once arrive at the more difficult articulation by consonants. There are indeed no facts to support this hypothesis; for we have not yet discovered, as far as I know, any language so much in the infantine state, as to have no consonants at all. But, in the language of Otaheite, the new discovered island, we have several words of that kind, such as *eace*, *aiai*, *eo*, and others above mentioned. And indeed, the most of them approach very near to that simplest kind of articulation. Of the same kind are some words mentioned by La Hontan * in his vocabulary of the Algonkin language, particularly the word *oueouelim*. I think it probable, that the language of those *Orang Outangs* of Abyssinia, whom I mentioned before, is all

* Vol. 2. p. 203.

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of that kind, consisting of words articulated by vowels only, or at least with very few consonants*.

The next thing to be considered is, the length of the words in the primitive languages. And I say, that, instead of being short, and consisting of monosyllables, they were of great length: And this too is a consequence of those languages being derived from natural cries; for such cries of almost all animals have a certain tract and extension, such as the lowing of an ox, the neighing of a horse, the braying of an ass, the roar of a lion, &c. And that we may not think man an exception from this rule, we need only attend to the dumb persons among us, who utter inarticulate cries, sometimes very loud, but always of a considerable length.

There is another reason why the words of those languages should be long, namely, that having very little articulation by consonants, and none at all at first, according to my supposition, it was necessary that they

* It may be observed, that there are in Greek some words consisting altogether of vowels, such as *αω, εω, ουω, ιω, υω*; which I consider as vestiges still remaining of the antient savage language, out of which the Greek was formed by men of art.

should have a certain length, in order to distinguish them from one another, and give them that variety which was necessary to express various things; whereas, we that have so many consonants, can, by their means, give a considerable variety even to one syllable, and a very great variety to two or more*.

And this theory too is strongly supported by the fact; for all the barbarous languages have their words of a remarkable length. Some of them indeed have them longer than others, because all of them are not equally

* The want of variety in articulation in the barbarous languages, is the cause, not only of the length of the words, but of the frequent repetition, in the same word, of both the same letters and same syllables. This is most remarkable in the language of the inhabitants of Otaheite, as appears from the vocabulary of it contained in Parkinson's journal above mentioned, where we have such words as *aiai*, signifying the *armpits*; *hiabia*, a *level*, or *flat country*; *bidibidio*, *small red Indian peas*; and many others of the same kind. And the name of one of the handsomest women in the island was *Otheaothea*.

The artificial way, therefore, of varying the sound of a language is, first, by having as many elemental sounds as may be; and, secondly, by combining those elemental sounds in all the ways possible. But the barbarous nations having neither of these two methods, can vary their sounds only by repeating, or otherwise lengthening them.

equally near to the original source; and some of them, as I shall have occasion afterwards to observe, begin to be languages of art: But all of them without exception have a much greater length of words than is to be found in the languages of civilized nations. The barbarous languages above mentioned plainly prove this; and particularly the language of the Hurons, the words of which, as they are set down in Sagard's dictionary, are of an enormous length. The language of the Caribs, according to the account of it given by the missionary above mentioned, exceeds even the Huron in this particular; and Mr Dobbs, in his vocabulary of the Esquimaux language, has given us the word *won-na-we-uck-tuck-luit*, signifying *much*; and a word but a little shorter, signifying *little*, viz. *mik-ke-u-awk-rook*. And William Smith, in his history of *New York*, has given us a specimen of the language of the *Iroquois*, or *six nations*, as we call them, in North America, p. 40. which the reader, if he pleases, may peruse below*. But the

* " Soungwäünchä, cäuroŭnkyäwgä, tēhsēētārōan, saūhsōñeyōūstā, ēsä, säwāñcyōu, Okērtāūhsēlä, ēh-nēūwōung, nā, cäuroŭnkyäwgä, nūghwōñshāügä,

language of a barbarous people that Mons. la Condamine met with upon the banks of the river Amazons exceeds all others in length of sound, of which he gives a specimen in their word for the number *three*, viz. *poctazzarorincouroac* *.

něattěwěhncěšālūgā, taūgwāunāutōrōncāntōūghsick, tōāntaūgwělēwhěyōustāng, chěncěyeūt, chāquātaū-
šālchwhěyōūštāunnā, tōūghsaū, taūgwāufsārēnēh, tā-
wāutōttēnāugāloūghtōūnggā, nāsūwně, sáčěaūtāūg-
wāfs, coāntěhšālōhāunzāickāw, ēšā, šāwāunēyōu, ēšā,
tāfhāutzā, ēšā, soūngwāfoūng, chěnněaūhāūngwā,
āuwěn.”

Where it may be observed, that, according to the notation of the quantities in this specimen, it appears, that the language of the Iroquois abounds as much in short and long syllables as the Greek or Latin. This specimen was furnished to Mr Smith by the Reverend Mr Spencer, a missionary among the Iroquois, from the Scotch Society for propagating christian knowledge. It is contained in a letter from him to Mr Smith, in which Mr Spencer shews that he is a scholar, and has an ear for the music of language; for he speaks of the *generosity* of the *fact* of this Iroquois language, that is, as a Greek critic would express it, *πεδὲς γενναίον*. The Iroquois language may perhaps be remarkable for the nobleness of its rhythms; But I am persuaded, that all original languages have quantity or rhythm of one kind or another. For I hold, that the want of quantity, such as is in all our modern languages of Europe, is a corruption of language: And accordingly it is well known, that all those dialects are corruptions of better languages. See what I have said further upon this subject, in my second part, where I treat of *quantity*.

* Condam, Voyag. p. 66.

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And thus it appears, that the length, as well as the vocality of the words, is a common property of all barbarous languages. Now, whatever is general must have a general cause; and let any man who is not satisfied with my hypothesis, consider what other cause he can assign.

There is an objection will occur to this hypothesis of mine, from the example of the Hebrew and the Chinese languages. The first of these is undoubtedly a most ancient language, and by some thought the parent of all others; yet it has no extraordinary length of words, and abounds with consonants; particularly the roots of it have all three consonants and but two vowels. The Chinese is likewise a language of great antiquity; and yet all its words are monosyllables.

In answer, first, with respect to the Hebrew, That it is no doubt a language of very great antiquity; and, as it is likely, the parent of many others: But it does not from thence follow, that it is one of those first languages which grew out of the first attempts of savages to articulate, and were formed without any rule or art, which are the subject of our present inquiry; but, on

the contrary, if what is the general opinion of the learned in that language be true, it must be a language of very great art; for they tell us, that the roots of it consist of triads of the several consonants variously combined. This shews evidently, that the language is the work, not of savages, but of men of art, who knew the power of the letters, and the effect of the several combinations of them; and in that way formed the radical words of the language, from which all the rest are derived, according to certain rules: So that the language is a complete system, which never could arise out of the rude and casual essays of men first beginning to speak.

And as to the objection arising from the Chinese language, neither there is any evidence that it is one of those languages concerning which we are inquiring; but, on the contrary, as the language among the Chinese is so great a part of their learning, there is reason to think that it was the work of learned men; more especially as it bears none of those marks of a rude and artless language, which I shall take notice of afterwards when I come to speak of the formal part of such languages: For it is a language,

so far as I can be informed, full and accurate in its expression, with all the parts of speech as distinct as in our European languages. For what reason the artists of this language stopt short in the formation of it, and did not enlarge their words by composition, derivation, and inflection, is a curious enough question, of which we may take occasion to say something afterwards; but it does not belong to our present subject.

It may also be objected, That the language of the new-discovered island of Otaheite, mentioned above, is not so remarkable for the length of its words, as for their being full of vowels, and of very soft pronunciation. As to which, I was informed by one of those gentlemen, to whom the learned world, and indeed all mankind, is so much obliged for the toils and dangers they have gone through in search of knowledge, that it is far from being a barbarous language; for they have cases of nouns, and tenses of verbs, which they form as we do, the cases by prepositions, and the tenses by auxiliary verbs; and they have all the parts of speech that we have, without exception even of the adjective, which is not to be

found in any barbarous language, as I shall take occasion afterwards to observe. There is likewise etymology in their language; that is, derivation and composition: And as to the length of their words, he told me, they were generally of several syllables; and he could recollect but one monosyllable in the whole language, tho' he had applied himself particularly to the study of it, and had made so great proficiency as to be able to speak it with tolerable ease.

C H A P. VIII.

Of the Formal Part of Barbarous Languages.—An Account of it from Theory.

I COME now to consider the *formal* part of barbarous languages; that is, the sounds of them as significant; a subject much more curious, and more worthy of the attention of a philosopher, than mere sounds in any language, but particularly in the language of savages: For, as there is a

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necessary connection betwixt thinking and speaking, we trace there the progress of the human mind in its state of infancy; a matter of the greatest importance in the history of man, but of which there can be no other record except the languages of barbarous nations.

In treating of this subject I will follow the same method that I have followed with respect to the material part of such languages.—I will begin with the theory: Not that I pretend to have discovered *à priori*, and from speculation merely, what I am to deliver upon this subject; for, as I should have known nothing of the original state of man, without having studied the *manners* of barbarous nations; so I should have been equally ignorant of the origin and progress of language, if I had not studied the *language* of barbarous nations; but because the method of science requires, that we should begin with the principles and causes, and from them deduce the facts, though the order of investigation and discovery be just the reverse: And if it shall appear, that from the facts the theory naturally arises, and that the theory again explains and illustrates the

facts, it is hoped very little doubt will remain of the truth of my system.

Whatever is expressed by language, may be reduced to two general heads; things themselves, and the relations or connections of things. We will begin with the things considered absolutely in themselves, and as unconnected with one another. And, in this view, they are either *substances*, and their *properties*; or *actions*, and their *circumstances*; or, in the grammatical language, they are either nouns substantive, and adjectives, or they are verbs and adverbs. I will begin with substances, and their properties. And, in treating this matter, I require only one *postulatum*, which certainly will be granted me, That men never would give a name to that of which they had no idea; and if they had not a separate idea of any thing as distinguished from other things, they would not give it a separate name.

That there can be no language without ideas, is evident; and it is as evident, that there can be no ideas, at least in the human mind, without abstraction. We have therefore thought it necessary, in this philosophical inquiry into the nature of language, to explain at some length the doctrine of abstraction; and, however foreign

to the purpose it might appear at the time, we hope it will now be found of use in explaining the nature of these primitive languages. We have there shewn, that this operation of abstraction is performed in a greater or less degree of perfection; that, when it is most perfectly performed, every quality of the individual is considered separately by itself: Then it is considered, what of those qualities it has in common with other individuals, and what it has peculiar to itself. When the mind perceives what is common in any subject, then it is said to *generalize*; and, when it unites together the qualities in any subject that are common to other subjects, and makes *one* of them, then it recognises the species, and is said to have the *idea* of the thing; and that idea is *perfect*, if it take in all that is common to that thing with other things of the same species, and nothing more.

That savages should perform accurately this double operation, of first separating and then uniting, and should in that way form those perfect ideas which only men of science form, must be allowed to be a thing impossible. They will no doubt have some

general notion of the species, such as we have seen even brutes have; and consequently some obscure perception of the difference betwixt what is common to the species and what is peculiar to the individual, and making no part of the idea of the species; but they will not make this distinction accurately, so as to take nothing into their idea but what belongs only to the species. To be convinced of this, we need only recollect, that all our ideas arise from perceptions of sense, and that the sense presents every thing to us as it exists in nature; that is, with all its qualities, both those belonging to the species, and those which are peculiar to the individual. Now, can we suppose, that the savage, in forming his idea of the species, will take in only what belongs to it, rejecting all the qualities of the individual, which are often more striking and obvious to the sense than the specific differences? If we could conceive his notion to be so correct, then no doubt the name he would impose would be the proper name of the species; but as it is impossible to suppose in a savage such justness of thought as can only be the effect of much thinking and observation, it is evident that the name with which he marks any

thing must denote, beside the qualities common to the species, some that belong only to individuals. Thus, he will not denote a bear by a name signifying only that species of animal, but he will use a word signifying a *great bear*, or a *small bear*, a *strong bear*, or a *weak bear*, or any other quality of the individual bear that affects his senses or imagination most. They will not have a word denoting a house, or a hut, in general, but they will have a word signifying a *great* or a *little hut*, or *my hut*, or *your hut*.

Thus it appears, that at first there would be no name of any substance considered abstractly by itself, because there would be no such abstract idea of it; (see Ammonius upon the categor. fol. 29.) but the word expressing any such substance would always denote something more than the substance itself. And as to the qualities of substances, the matter is still clearer; for it is impossible to conceive, that savages should have any idea at all of qualities abstracted from the substance in which they are necessarily inherent. It is evident, therefore, that the words of those primitive languages, expressing qualities, would only denote them as they exist

in nature; that is, inherent in the subjects to which they belong: So that the names of qualities would be blended with the names of substances.

When I was upon the subject of ideas, I observed, that some were more general, and some less general; and accordingly, in all the languages of civilized men, there are terms more or less general. Thus, *animal* is a more general name than *man*, comprehending under it, besides man, all other species of animals. In like manner, *animated body* is more general than *animal*,—*body* than *animated body*,—*substance* than *body*; and there the progression ends, *substance* being one of those universals of the highest order, known by the name of *categories* or *predicaments* *. The question is, How far our savage will proceed in this ascent? That he will go up to the top of the ladder, must appear impossible †. But *how*,

* See book 1. c. 6. p. 67.

† To remove all doubt in this matter, it may not be improper, by way of addition to what I have said upon this subject in my first book, to state a little more particularly the steps by which the mind rises from *sense and matter*, where it begins, to these ideas of *highest abstraction*. In the first place, by comparing together the several individuals of a species, and abstracting what is

far will he proceed? Will he go the length of *animal* in the instance given? I think not; and my reason is, that the wants of life, from which we are to deduce the improvements

common to them all from what is peculiar to each, we form the idea of what the logicians call the *lowest species*; as, for example, of *man*. Then we compare this species with other specieses of animals, and by separating what is peculiar to each species from what is common to them all, we form the more general idea of *animal*. In the same manner, from particular specieses of vegetables we form the general idea of *vegetable*. Then comparing together the animal and vegetable, we observe what is peculiar to each; and separating that from what is common to both, we in this way attain to the still more general idea of the *το σκεψυχον*, or *animated body*. From thence, by the same process, we ascend to *body*, and from *body* to *substance*; where, as I have said, the progress ends.—And, with respect to *accidents* or qualities of substances, there is the same progress from the lowest species to the highest *genus*; as, for example, from extension in particular objects, we rise to the idea of extension in general, or *quantity continuous*. In the same manner, from particular numbers of things we get the idea of number in general, or *quantity discrete*; and, by comparing those two kinds of quantity together, we attain to the general idea of *quantity*. In this way we ascend in the series both of *substances* and *accidents*; and these two comprehend the whole of things. That it is impossible a savage should go far in this progression, must appear evident, if we consider, 1st, That such ideas are formed by repeated abstractions, which carry us much farther from sense and matter than we can

of the human mind, would only make it necessary for him to have an idea of the several specieses of animals with which he was conversant, not to form a more general idea

suppose the unpractised intellect of savages to go. *2dly*, The formation of such ideas requires a more extensive knowledge, and more enlarged views of things, than it is possible for savages to be possessed of.

And here we have got to a summit, from which we may see the whole extent of metaphysical philosophy, that is, the knowledge of the principles of things, according to the doctrine of the Pythagorean and Aristotelian school: For those philosophers did not stop at the categories, which, according to the account I have given of them, are all specieses of things formed and complete of their kind; (see *Ammon. in Categor. fol. 47*); but they inquired further, whether there were not certain things in nature, which were not themselves categories, but the principles or elements of categories: For they conceived, that the specieses of things were not at once formed by nature, but that there was a progression in the formation of them from what was imperfect to what was perfect; that is, from the elemental principles to the things themselves. Of this kind of elements they found the *point*, the *monad* and the *instant*, to be; none of which belong to the category of quantity, being neither magnitude, number, nor time; (see *Ammon. ubi supra, fol. 46.*); but they are the principles of all the three; the point being that of magnitude, or quantity continuous; the monad, that of number; and the instant, that of time. Besides these, there is one elemental principle much more general, being the foundation, or *substratum*, as we may call it, of all the cate,

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comprehending them all. Such an idea would come only in process of time, and after his sphere of life was so much enlarged, and reasoning so far advanced, as to make it necessary

gories, I mean *matter*; the several categories being different forms, which, joined to this universal matter, constitute the whole visible world. But how does this union happen? How do matter and form join together to produce the several substances and their qualities? Or, in other words, How are things generated? The answer is, by *motion*. Here then is another *universal*, which is not a category neither, but may be said to be the road or passage to all the categories, as no species of thing here below can exist without motion; *Annon. ibid.* 47. Matter then must be moved, and must undergo some change, before it can receive those forms which constitute the nature of things. If so, it must have in itself the capacity of being moved, which, when brought into exertion, is what we call *motion*, as I have explained in a former note, p. 16. & seq.; and, according to Aristotle, is in the body that *is moved*, not in what *moves*. And therefore he has defined a *natural body* to be that which has in itself the *principle of motion*. And this naturally leads us to a still higher order of being. For, if there be motion, there must be a mover. And what can this mover be? It cannot be body, which is only passive of motion, and may communicate it by impulse to other bodies, but cannot begin it. What then is it that moves or begins motion? My answer is, That it is not matter or body. It is therefore an immaterial substance, and this substance I call *mind*. Of which, if we require a definition, I think the best that can be given is, that it is a substance which has in itself the power of *moving*. And in this way it is properly distinguished by Aristotle from body; which,

for him to distinguish betwixt animal in general, and the vegetable or inanimated nature; and it would not be till all the necessaries of life were supplied, and till men had found leisure

as I have said, he has defined to be that which has the power of motion, that is, of *being moved*.

But neither did this philosophy stop here; but they inquired further, whether every mind had *originally* in itself this power of moving; and they found, that there was but one mind that had this power originally and independently of itself, and that all other minds had it by derivation from this first mind; which therefore is the first cause, the author of all motion, and of all generation and production of every kind; and which Aristotle, in the conclusion of his physics, has proved to be eternal and unchangeable, immaterial, and without parts.

This philosophy, so noble in appearance at least, and so extensive, which, beginning with the perceptions of sense, pretends to lead us, by gradual removes from matter, to the most general and abstract properties of material things, such as are at a great distance from particular objects of sense; and from thence to conduct us to the principles or elements of those general properties, and which are still more removed from matter and sense: And, when we have gone thus far, supposing us capable of still further progress, lead us on to that which is not abstracted from matter, or existing in matter, such as the universals we have been speaking of; but that, which, by its nature, is entirely separated from matter, or, in one word, *mind*: And, last of all, from mind in general, leads us to the contemplation of the supreme mind, and first cause of all things: — This philosophy, I say, which, from what is *lowest*

to philosophise, that they would find out those remote likenesses which constitute such ideas as those of *body, substance, matter, space,* and the like. And thus it appears, that the

in nature, conducts us, to what is *highest*, and ends in the sublimest theology, should at least excite the curiosity of speculative men among us to look a little more into it, and see whether it answers to this idea that I have endeavoured to give of it.

Many readers will probably think that, in this and some other preceding notes, I have gone farther into metaphysics than the nature of my subject required. But my apology is, *first*, That my digressions of this kind will not, I hope, appear quite foreign to the purpose; and, as they are thrown into notes, and have not any necessary connection with the text, every one may read them or not as he pleases. *Secondly*, I must confess that I intended to give the reader some specimen of ancient metaphysics, in order to shew how different they are from the fashionable metaphysics of this age, the one leading to the purest and most sublime theology, the other to the grossest impieties and absurdities, such as disgrace this noblest science, the very top and pinnacle of philosophy, from which we discover, as far as human ken can reach, the whole of nature, and its great Author. But to this height we can climb only by slow and painful steps, with the assistance of much learning, and of a good natural genius. Whereas, some in our times, with but poor natural parts, ignorant of the very elements of philosophy, unassisted even by the common school learning, and not so much as knowing the nature of this science, have nevertheless engaged in it; and, not content with having thrown away their time

ideas of savages, and by consequence their language, would at first be confined to the lowest specieses, unless where it happened that the specific differences of such specieses were not so readily to be distinguished. In that case it is natural to suppose, that they would leap over the lowest specieses, and ascend at once to the genus immediately above them. Thus, *ex. gr.* they would have the idea of a tree, before they had the ideas of the different specieses, such as ash, oak, beech, &c. ; but, where the specific differences are obvious, as in the case of such animals as man, horse, dog, &c. it is impossible to suppose that they would not form the idea of those several specieses before they formed the more general idea of animal.

The last thing I have to observe, with respect to the names of substances and their

upon speculations, for which they were nowise fitted, neither by nature nor education, have, through mere vanity and affectation of superior parts, become authors, and sent abroad into the world such doctrines as a wise and good man, though he had been most firmly convinced of the truth of them, would not, out of regard to human society, have published. For, though such writings are despised by men of real learning, they have a very bad effect upon the vulgar and half learned.

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qualities, is, that many substances, as well as their qualities, have a similitude one to another; and therefore they are expressed in the languages of art by words which have likewise a resemblance: Which resemblance is produced either by derivation or composition. These make a considerable part of the grammatical art, known by the name of *etymology*, but of which we cannot suppose the savages to be possessed. The consequence of this will be, that every thing, however like to another, will be expressed by a word quite different; which will occasion a great multiplication of words entirely new, that are saved by the two artifices above mentioned, of composition and derivation; and it will make all the words of the language unconnected with one another: So that there will not be what we call roots in it, nor any thing like a system of a language. And what will occasion a further multiplication of words in such a language, is the necessity of denoting the same substance joined to a different quality by a different name, and the same quality joined to different substances, also by a different name. Whereas, in languages of art, the same substance, with how many soever different qualities, is always known by

the same name; and likewise the same quality is expressed by the same word, whatever different substances it is joined with.

I come now to speak of actions and their circumstances. With respect to which, accurate abstraction considers four things separately: *1mo*, The action itself; *2do*, The agent; *3tio*, The subject of the action, or that which *suffers*; and, *lastly*, The manner in which the action is performed. Let us take, for example, the verb signifying to *beat*. There is first the action of beating; then the agent or person who beats; then the person or thing which suffers, or is beaten; and, *lastly*, there is the manner of beating, whether quickly or slowly, severely or gently, &c. But all these exist together in nature; and therefore the savage considers them all in the lump, as it were, without discrimination; and so forms his idea of the action; and according to this idea expresses it in words. Whereas, in languages formed by rule, all those things are expressed by separate words, or by variations of the same word, if that can be conveniently done. Further, there are some necessary adjuncts of the action, such as time. This too, though inseparably joined with it in nature, accurate abstraction

separates, and expresses either by a different word, or by a certain variation of the same word: But this the savage likewise throws into the lump, and expresses all by the same word without variation, or by a word quite different. There is also the disposition or affection of the mind of the speaker, with respect to the action affirming or denying it, commanding it, or wishing it. These dispositions, in regular languages, are expressed, either by separate words, or by a variation of the word denoting the action; whereas, in the languages we speak of, they are either not expressed at all, or by a word altogether different. And this will produce a further increase of words not necessary: For as there is no word expressing the action simply by itself, if there be the least change in any circumstance of the action; nay, if there be but an alteration in person, number, or time, or in the disposition of the mind of the speaker with respect to the action, there must be a new word. For, as they have no ideas of those circumstances separate from the action, they can have neither separate words to express them, nor variations of the same word, even if they knew that:

great secret of artificial languages, I mean inflection.

The last thing I proposed to consider was, the expression of the relation or connection of things, and of the words expressing them, with one another; which makes what we call *syntax*, and is the principal part of the grammatical art, being that for the sake of which all other parts of grammar are intended, and without which they would be of no use *: For the end of grammar is to produce speech or discourse. Now, let ever so many words be thrown together of the most clear and determinate meaning; yet if they are not some way connected, they will never make discourse, nor form so much as a single proposition. This connection of the parts of speech in languages of art is either by separate words, such as prepositions and conjunctions; or by cases, genders, and numbers, in nouns; and, in verbs, by numbers and persons, and also by moods, such as the infinitive and subjunctive, which, in the more perfect languages, are all expressed by inflection or variation of the principal word. But, in less perfect languages,

* See *Theodor. Gaza's Grammat. Græc. part. 3. initio.*

the most of them are denoted by separate words. Now, as every kind of relation is a pure idea of intellect, which never can be apprehended by sense, and as some of those relations, particularly, such of them as are expressed by cases, are very abstract and metaphysical, it is not to be expected, that savages should have any separate and distinct idea of them. They will not, therefore, express them by separate words, or by the variation of the same word, but will throw them into the lump with the things themselves. This will make their syntax wretchedly imperfect, and very much resembling the language which they used before they had words; I mean, the language of *signs*. For we may observe, that the greatest defect in the language of our dumb persons is the want of signs of connection betwixt the ideas which they express by their gestures. And we may observe the same defect in the language of our children while they are learning to speak: For, though they have the words, they do not know how to join them together in syntax.

This is my notion of the nature of the first languages, deduced, as the reader will

perceive, from my philosophy of the human mind, laid down in the first book of this work. And we are now to examine whether this theory is supported by fact.

C H A P. IX.

The preceding Theory illustrated by Examples from the Barbarous Languages.

TH E R E are only three barbarous languages, as far as I know, of which we have any particular account published that can be depended upon. The three are those I mentioned above; the *Huron*, the *Galibi*, and the *Caribbee*; of which we have dictionaries, and grammars also, so far as it is possible to make a grammar of them, given us by men of letters who had studied them. The *Huron* is the rudest and most imperfect of the three; and, therefore, it is from it chiefly that I shall take my examples.

And, in the *first* place, there is no such thing in this language as derivation or com-

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position: So that, whatever analogy words may have in their signification, they have none at all in their sound. The Hurons, therefore, have not attained to that art by which a language is connected together, and the number of different sounds very much abridged. The consequence of which is, that, if their sphere of life were not very narrow, there would be such a multiplicity of words entirely different from one another, that the memory would be overburdened, and the language become too bulky and cumbersome for use*.

* There is so little connection betwixt the words of their language, and so little art or regularity in it, that the addition of a negation changes the word entirely. Thus, there is one word which signifies, *a thing is handsome*; another quite different, signifying, *it is not handsome*. There is another word which signifies, *Thou hast beat him*; another quite different, which expresses, *I have not beaten him*. There is a word which signifies, *I know it well*; another, altogether unlike it, signifying, *I do not know it*. And any the least change of circumstance makes the expression quite different. Thus the word which signifies *wounded with a hatchet*, is quite different from the word which denotes simply *wounded*. *In the hut*, is expressed by a word quite different from the word signifying *hut*; and there is a word different from either, which signifies *my hut*. Nay, there is a word which signifies *two years*, altogether different from that which signifies *one year*, *four years*, or *ten years*.

2dly, Substances are commonly not expressed by themselves, but in company with their qualities, and often with actions concerning them, as shall afterwards be observed. Even the common relations of father, mother, uncle, aunt, are not expressed simply by themselves, but with the adjuncts of *mine, thine, his*, and by words entirely different one from another.

3dly, There is no such thing in the language as a quality expressed without the particular substance in which it is inherent: For there is not in the whole language one adjective, that is, a word denoting a quality inherent in some undetermined subject; far less have they abstract nouns, as they are called, derived from adjectives, such as *goodness, badness*, and the like. They have not, therefore, a word which expresses *good* or *bad*; but they have words which signify *you are good*, or *you are bad*.

4thly, In actions, they do not commonly make the distinctions above mentioned, betwixt the *action*, the *agent*, the *subject* of the action, and the *manner* of it; but very often express all together by the same word. And hence it is, as our author observes in his preface, that they have a great many words,

which are so many sentences. Thus, they express by one word, *There is water in the bucket*; by another word, quite different, *There is a great deal of water*; by a third, different from either, *You have overturned the water in the fire*. But by one and the same word they express, *Thou shalt be very glad of it*, and *Thou art very glad of it*. Their verbs commonly express the action with the subject of the action; and but very few denote the action simply by itself. Thus, there is no word which signifies simply *to cut*, but many that denote *cutting fish, cutting wood, cutting cloaths, cutting the head, the arm, &c.* In like manner, they have no word that denotes the simple idea of *giving*; but there are two or three pages in our author's dictionary filled with words signifying *to give* different things. This again multiplies their words so much, that, if it were not for the reason above mentioned, their language could not serve the ordinary purposes of life.

5thly, As to tenses, numbers, and persons, our author tells us, in his preface, that they commonly do not distinguish them otherwise than by the accent or tone; and, in the

same way, they distinguish, whether the verb affirms or interrogates. The different tenses, therefore, numbers, and persons, are commonly expressed by the same word ; or, if they are expressed by different words, it is by words altogether different, and unconnected with one another. Thus, *I have said, Thou hast said, He hath said*, are all expressed by words quite different ;—*I have said it*, by a fourth word, not at all like any of the other three ; and *I have said to him*, by a fifth word, likewise entirely different.

6thly, There is not in the Huron language, nor in either of the other two, as far as I can discover, any word denoting a higher genus, such as *animal* or *vegetable*, and far less *matter, space, being*, or such like metaphysical entities. This is observed by M. de la Condamine of the language of the savages that he saw upon the banks of the river Amazons, who have words of such an enormous length ; and it is true of all the barbarous languages without exception. In what I have said above, I hope I have sufficiently explained the reason of this so general property of those languages.

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Lastly, With respect to syntax, they appear to have none at all ; for they have not prepositions or conjunctions. They have no genders, numbers, or cases, for their nouns, nor moods for their verbs. In short, they have not, so far as I can discover, any way of connecting together the words of their discourse. Nor is this a peculiarity in their language ; but it is the same in the languages of the Galibi and Caribs, as we are informed by the authors who have given an account of those languages, tho' neither of them be so rude and imperfect as the Huron. Those savages, therefore, tho' they have invented words, use them as our children do when they begin to speak, without connecting them together ; from which we may infer, that syntax, which completes the work of language, comes last in the order of invention, and perhaps is the most difficult part of language. It would seem, however, that persons may make themselves understood without syntax. This I think can be done no other way but by the arrangement of the words, (which is a considerable part of the syntax in modern languages that have not cases), by accents or tones, or by gestures and signs. The

Hurons, and I believe all the barbarous nations, have a great variety of tones; they have also much action in their speaking; and there can be no doubt but that the position of the word will commonly determine what other word in the sentence it is connected with.

And thus I think it appears from fact, as well as theory, that those primitive languages are natural cries, a little varied and distinguished by articulation, signifying things as they are conceived by savages; that is, mixed together as they are in nature, without being divided into certain classes, commonly known by the name of *parts of speech*, and without being connected together in syntax.

C H A P. X.

Progress of the Barbarous Languages towards Improvement.—Account of Languages that are not barbarous spoken by Barbarous Nations;—such as that of the Garani,—of the Algonkins,—of the Goths,—of the Laplanders,—of the Greenlanders,—of the Albinquois.—This last too artificial.—The Progress of Abstraction and Generalization deduced from the Progress of Language.

BUT, although the Huron language be, as I have said, the most rude and imperfect of any that have come to my knowledge, yet, even in it, we can see beginnings of improvement; which are the more to be attended to, that they are so many steps of the progress of the human mind in the art of thinking.

And, in the *first* place, as the great defect of all barbarous languages is, the expressing different things by the same word, without abstracting and separating them one from a-

another ; where-ever we see any one thing expressed by a distinct word, it is to be reckoned an improvement of the people in the faculty of thinking, and, by consequence, of their language : For, if they had not first formed a separate idea of the thing, they never would have expressed it by a separate word. I have observed already, that they are not so far advanced in abstraction as to divide the quality from the substance in which it is inherent, and to express it by a distinct word ; but they have made an abstraction less violent, and with which it was natural they should begin ; I mean, of the substance from the qualities ; and considered the substance as existing by itself, without any particular quality, and have given it a separate name. This, I think, must necessarily have been the first abstract idea, that was in any degree perfect, formed by men : And accordingly the Hurons have gone so far as to form some such ideas, and give names to them. For example, they have a word which denotes *trees* simply ; others which denote certain specieses of *trees*, of *fruits*, and of *animals* ; others that denote works of art, without the addition of any quality.

2dly, In generalization, they have begun to go beyond the lowest species, not only in trees, but in animals: For, though they have not a word, as I have already observed, to express the genus *animal*, yet they come pretty near it, having a general word which denotes *the quadrupeds of the forest*, and another which denotes *the tame quadrupeds*, such as dogs.

3dly, They have made some progress in that most artificial part of speech the *verb*; for, in the *first* place, they have carried abstraction so far, in some few instances, that they have abstracted the action from the agent, and from every circumstance accompanying it, and have invented a word to express it simply by itself. Then they have made the distinction of the three persons; and, in some few of their verbs, this distinction is marked by a variation or inflection of the word, as in the expression, *I am hurt*,—*Thou art hurt*,—*He is hurt*, the same word, with a different inflection in the beginning, expresses all the three persons. This indeed is uncommon; but it is not so uncommon that one of the persons should be distinguished from the rest by a variation of the word; as, in the word which signifies *to*

sneeze, the second person of the present is distinguished from the first person by the addition of the letter *s* to the beginning of the word. Thus, the first person, *I sneeze*, is *atsnosta*, and it is the same with the third; but the second person is *satsnosta*. And in this very verb there is a mood, namely, the infinitive, viz. *atsnosta*, denoting the action by itself, without any person. I have found too one verb, and but one, where there is a distinction of the time by a variation of the word; it is the verb signifying *to say*, in which the present, *I say*, is distinguished from the perfect, *I have said*, by a different form of the word.

But these are all improvements that have been made upon the language: For the original state of it, as is evident from what still remains of it, was as I have represented it, and still continues so with respect to the cases of nouns, and the syntax; which inclines me to believe, that these two parts of language are of most difficult invention.

There is one thing concerning these Hurons which deserves our notice; that, altho' they are but very little advanced in the arts of life, and their language particularly is, as we have seen, so imperfect, yet they have a

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decimal arithmetic such as we have; for they count to *ten*, and then turn back again, as we do. Our author has given us the names of the principal numbers up to two thousand, which I have set down below for the entertainment of the curious, and at the same time to serve as a specimen of their language *. Whether their arithmetic goes

* 1, Escate; 2, Teni; 3, Hachin; 4, Dac; 5, Onyche; 6, Houhahea; 7, Sotaret; 8, Ateret; 9, Nechon; 10, Affan; 11, Affan-escate-escarhet; 12, Affan-teni-escarhet; 13, Affan-hachin-escarhet; 14, Affan-dac-escarhet; 15, Affan-onyche-escarhet; 16, Affan-houhahea-escarhet; 17, Affan-sotaret-escarhet; 18, Affan-ateret-escarhet; 19, Affan-nechon-escarhet; 20, Teni-quivoiffan; 21, Teni-quivoiffan-escate-escarhet; 30, Hachin-quivoiffan; 40, Dac-quivoiffan; 50, Onyche-quivoiffan; 60, Houhahea-quivoiffan; 70, Sotaret-quivoiffan; 80, Ateret-quivoiffan; 90, Nechon-quivoiffan; 100, Egyo-tivoiffan; 200, Teni-tevoigna-voy; 1000, Assen-attevoignavoy; 2000, Teni-tivoiffan-attevoignavoy.—And their arithmetic goes no farther; at least our author says nothing more of it.

I will also give the names of numbers among the *Algonkins* another nation in North America, from the Baron Houtan's *Voyages*, vol. 2. p. 217. 1, Pegik; 2, Ninch; 3, Nissoue; 4, Neou; 5, Narau; 6, Ningoutouaffou; 7, Ninchouaffou; 8, Nissouaffou; 9, Changaffou; 10, Mitaffou; 11, Mitaffou-achi-pegik; 12, Mitaffou-achi-ninch; 13, Mitaffou-achi-nissoue; 14, Mitaffou-achi-neou; 15, Mitaffou-achi--narau; 16, Mitaffou-achi-ningotouaffou; 17, Mitaffou-achi-ninchouaffou; 18, Mitaffou-achi-nissouaffou; 19, Mitaffou-achi-changaffou; 20, Ninchtana; 21, Ninchtana-achi-pegik; 22, Ninchtana-achi-ninch;

farther, our author does not say; but I imagine it does not, as I do not think their sphere of life does require any further use

23, Ninchtana-achi-nissoué; 24, Ninchtana-achi-neou; 25, Ninchtana-achi-narau; 26, Ninchtana-achi-ningotouaffou; 27, Ninchtana-achi-ninchoaffou; 28, Ninchtana-achi-nissoaffou; 29, Ninchtana-achi-changaffo; 30, Nissouemitana; 31, Nissouemitana-achi-pegik, &c.; 40, Neomitana; 50, Naran-mitana; 60, Ning-outouaffou-mitana; 70, Ninchouaffou-mitana; 80, Nissouaffou-mitana; 90, Changaffou-mitana; 100, Mitaffou-mitana; 1000, Mitaffou-mitaffou-mitana.

From this account, I think it is evident, that in the language of the Algonkins, they have two words denoting the number *ten*, viz. *mitaffou*, and *mitana*; and therefore it is an error of Hontan, or of his printer, when he makes the name of *twenty* to be *ninchtana*; for it should be *ninch-mitana*; that is, *twice ten*, in the same manner as *nissoué-mitana*, *thrice ten*, and so on, till we come to a thousand, which is *ten ten-times* and *ten-times*; that is, the *cube* or *third power* of *ten*.

For the further entertainment of the curious, I will subjoin an account of the arithmetic of the inhabitants of the new-discovered island of *Otaheite*, in the South sea, furnished me by Mr Banks, whose heroic labours in search of knowledge do honour to the age in which he lives, as well as to his country. The Otaheiteans count to 10, and then turn back, as the Hurons and Algonkins do. The names of the cardinal numbers are as follows. 1, *Tahai*; 2, *Rua*; 3, *Torou*; 4, *Ita*; 5, *Rima*; 6, *Whenu*; 7, *Hetu*; 8, *Warow*; 9, *Ivâ*; 10, *Ahourou*. When they have got thus far, they turn back as we do, and say, *ma-tahai*, that is, *one more*, or 11; *ma-rua*, 12; and so on, till they come to 20, for which they have a new word, *tahai-taou*, that

of numbers; and I observe, that men in that state of human nature very seldom go farther in any thing than the necessities of life require. The people of Kamfchatka go no farther than the number *twenty*, the number of their toes and fingers; and then they ask, *What shall we do next?* * And the arithmetic of the Caribs we are told, goes no farther than that of the Cyclopes in Homer, viz. to the num-

is, *one score*. Then they proceed, not by *tens*, but by *scores*, saying, *tahai-taou-tahai, tahai-taou-rua*; that is, *one score and one, one score and two*, and so on, not stopping as we do, and turning back at 30, but going on, and saying, *one score and ten, one score and eleven, one score and twelve*, and so on, till they come to forty, which they call *rua-taou*, that is, *two score*. Then they go on, counting in the same way, till they come to *torou-taou*, that is *three score*, or 60; and so they go on till they come to *ten score*, which they call *abu-manna*. Then they go on in the same manner till they come to *ten times ten score*, that is, 2000, which they call *mannu-tine*; and then they go on till they come to *ten times that number*, or *twenty thousand*, which they call *torou-tine*; and after this they have no new name for any number, though Mr Banks believes they may count farther.

* This fact is taken from the *Annual Register* for the year 1764, p. 4. where there is an account given of the inhabitants of *Kamfchatka*, taken from the Russian discoveries in that country.

ber *five*; and yet these people have made greater progress, as we shall see presently, in the art of language, than the Hurons. This I think makes it very probable, that the Hurons have learned their knowledge of numbers from some other nation more advanced in the arts of life: And it is not unlikely that the Caribs have got their language in the same way; for there have been strange migrations and mixtures of nations at different times; and indeed there is hardly any thing that we can conceive to be possible that has not happened in a long course of time*.

The language of the Galibi, according to the account of it given in the grammar and dictionary before mentioned, is much less imperfect than that of the Hurons; for they have gone so far as to divide speech into parts, as we do. They not only mark the different persons in their verbs by a variation of the word, but they have also distinct names for them; so that they have pro-

* This is an observation of Herodotus, *lib. 5. c. 9.* where he mentions a colony of Medes in the middle of Scythia. This no doubt is a very extraordinary thing; but, says he, *παραγινώσκω ἐν τῇ μέσῃ χερσὶ*; an observation that could be made only by a man who had studied as much as Herodotus the history of *mankind*.

nouns; and they have even adjectives. They have likewise those pegs or nails in the structure of language which we call conjunctions. But they have very little of composition or derivation. They want cases altogether, as well as the Hurons; and their syntax, except that they have conjunctions, and some prepositions, is as imperfect.

The Caribbee language has an affinity, as I observed before, with that of the Galibi; but, from the account given of it by the missionary above mentioned, it appears to be more imperfect, though not so imperfect as that of the Hurons; for they have some kind of derivation and composition, and more tenses for their verbs than the Hurons: But they often express a whole sentence by a word; which is not the case of the Galibi language.

So far therefore the art of language appears to be advanced among the Galibi and Caribs, and even among the Hurons; but we are not to imagine, that in none of the nations that are accounted barbarous, it has not gone further: For there is a people that they call *Garani*, in the country of Paraguay in South Ameri-

ca, of whose language I have seen a dictionary and grammar, in the Spanish language, printed at Madrid in 1639, written by a Jesuit, and dedicated to the Virgin Mary. It is very accurate, and the work of a learned grammarian; and from the account he gives of this language, it is a regular formed language, as much as any that is spoken at present in Europe, and preferable to them all in this respect, that it has declensions of nouns by inflection, and conjugations of verbs, expressing likewise by flexion the tenses, numbers, persons, and voices. And they have a peculiarity in the first persons plural of their verbs, such as is not to be found in any other language that I know, except in the language of the people of Brazil, as I was informed by Mons. de la Condamine at Paris, to whom I was obliged for the use of the grammar and dictionary of the Garani: For they have a first person plural *inclusive*, that is, including both the person who speaks, and the person to whom he speaks; and another *exclusive*, that is, excluding the person to whom you speak; both marked by different inflections of the word. In French, they make the distinction by the expression *nous autres*, which is the *exclusive* plural; and in

English, by a greater circumlocution. This is an accuracy of thinking, which shews them to be far advanced in the grammatical art, and makes me have the same conjecture concerning them that I mentioned with respect to the Galibi. For I think it is impossible that they who have made so little progress in the other arts of life, should have invented so complete a language; and as they could not have learned it from any of the nations presently in their neighbourhood, I think it is very probable, that, some time or other, by one of the many changes and revolutions that have happened in this earth, they have been connected with some more civilized nation, from whom they have learned to speak.

There is another language of art spoken in South America, by a nation inhabiting a part of that great country, known by the name of *Patagonia*. Of this language we have an account, in a small book very lately published by one Thomas Falkner, a Jesuit of Paraguay, who was 40 years in South America, and is now a chaplain in a popish family in England. And, according to his account of it, which I think

may be depended upon, as he says he learned it, it is a language of very great art, not inferior in its grammar even to the Greek. For it has the three great artifices of language, composition, derivation, and flexion; by the last of which, it forms its cases, numbers, and tenses. It has a dual number, as well as the Greek *, and in tenses, it is as

* In the second volume of this work, p. 88. I have shewn that the dual number is a matter, not only of art, but of philosophy, derived from an accurate knowledge of the nature of numbers. Such of my readers as are not philosophers, or have not studied arithmetic as a science, will be more apt to be convinced of the truth of this, by the following facts: *First*, all the barbarous languages, that I have studied, have no dual number; tho' it be possible, that some languages, otherwise barbarous, may have borrowed, from some more perfect language, the use of a dual number; as we have seen that such nations have got from others, more civilized, the use of numbers. *Secondly*, All the languages that are perfect in their grammar, such as the Greek, the Hebrew, and the Gothic, of which I shall afterwards speak, have this number. *Thirdly*, Those perfect languages, before they were completely formed, had it not. This appears from the example of the Latin, which, as shall be shewn afterwards, is a dialect of the Greek, came off from the parent stock before the language was completely formed; and therefore it has neither an article, nor the same variety of tenses, nor a dual number, as the Greek has. And, *lastly*, those languages, which are corrupted from more perfect languages in which there is a dual number, have none such. Accordingly, the

rich as the Greek, having, besides the ordinary tenses, a preterperfect, two aorists, and two futures. And it has not only reciprocating verbs, like the Greek middle verbs,

English and the other dialects of the Teutonic, which are no more than corruptions of the Gothic, and likewise the modern Greek, being a corruption of the antient, have no dual number.

It may be thought that barbarians would naturally use the dual number, because they had two eyes, two hands, and two legs. It might as well be supposed that they would use a *pentad number*, because they have five fingers upon each hand, and five toes upon each foot. Besides, if the use of the dual number be so natural a thing, how came the nations that had once the use of it ever to lay it aside, as it is so much more easy to retain what we have than to acquire any thing new? It therefore appears that, through ignorance and barbarity, those nations have lost this part of the art of the languages they once spoke, as well as the rest. As to the opinion of those, who think that the human mind, when it first separated *one* from *multitude*, and from thence proceeded to number, stopped at the dual, and were able to invent so artificial a thing as even the most barbarous language is, before they could count *three*, it is a notion that, I think, can hardly be seriously maintained.

Those who imagine, that there was no philosophy in the world before Plato and Aristotle, or even Thales and Pythagoras, will no doubt think it incredible, that languages, so antient as the Hebrew, Greek, or Gothic, should derive any thing from philosophy. Those, likewise, who fancy that the world, the older it grows, must necessarily

but also verbs which distinguish by flexion, not only the pronoun, which is the agent of the action, but the pronoun, which is the subject of it, whether it be *I, thou, we, ye, he, or they.*

There is another language, from the name of which we should expect nothing but rudeness and barbarity, and yet it is a great work of art, such as may be compared even to the Greek, and in many respects is preferable to the Latin. The language I mean is the *Gothic*, the parent of all different dialects of the Teutonic, such as the German, the Dutch, Swedish, Danish, Icelandic, and of the English among the rest. There is only one book of it extant, and that but

become the wiser, and more learned in all the arts and sciences, particularly in this most ingenious and useful art of language, will laugh at what I have said of the corruption of languages in later times; and will think that the disuse of a dual number, so far from being a corruption, is an improvement of the Greek and Gothic— But for such readers I do not write; nor for such philosophers as cannot find out either art or philosophy in the structure of the Greek language. The same philosophers, I suppose, discover no wisdom or contrivance in the fabric of the universe; but imagine that the one may have been produced by mere *matter and motion*, without *mind* as they think the other grew out of mere popular use, and was formed as it were by *chance.*

a short one, viz. a translation of the four gospels, which is preserved in the university of Upsal in Sweden. There are also preserved some fragments of the epistle of Paul to the Romans. From these remains, small as they are, we discover that it is a complete language in itself, having its roots all of its own growth, from which it forms the rest of its words by derivation and composition; and it is copious enough to express every thing in those translations by words of its own, without borrowing one from the original Greek, as I have been assured by a gentleman learned in language, and who has studied this very diligently. It has all the several parts of speech distinguished from one another, and among others the adjective of three genders. It forms the cases of its nouns by flexion, and has five declensions as well as the Latin; in all which, there are four cases, distinguished from one another by the difference of termination, viz. the nominative, genitive, dative, and accusative. It has an article of three genders, as the Greek has, and also a dual number in the two first pronouns, and in the verbs. These have four moods, as well as the Latin verbs, formed by the change of termination, and

three tenses, with the variety of persons and numbers, all formed in the same way. And, *lastly*, it has prepositions, conjunctions, and a regular syntax *

The learned reader, when he considers the figure that the Goths have made in the history of Europe, will not perhaps be much surprised that they should have spoken a language so perfect. But what will he say of the language of the Laplanders, a people as obscure as they are barbarous? There is a grammar of the language of the Laplanders of Findmark, a country to the North of Norway, and under the dominion of the King of Denmark, published by a Dane called *Canutus Leemius*, who intitles himself professor of the Lapland language. And he must have understood it very well, as he was ten years missionary among them, and preached to them in their own language †. And that he was a man of letters and a grammarian, is evident from the Latin style which he writes. The grammar I have not seen; but, in the ac-

* See *Edward Lye's Saxon and Gothic Dictionary*, lately published, with a grammar of these languages, by *Owen Manning*.

† Vid. cap. 4.

count which he has published of the people, he has given us the substance of it; from which it appears that it is a regular language of art, having all the parts of speech, composition, and derivation, with cases, numbers, tenses, persons and moods of verbs, formed by flexion. It has also a regular syntax; and, what is remarkable, it has, like the Gothic, a dual number in the two first primitive pronouns, and likewise in the verbs, both marked by flexion. This so remarkable an affinity betwixt the two languages, persuades me, that either the one is derived from the other, or that they are both of the same original stock.

Further, there is a language spoken by a people still more barbarous than the Laplanders; and, if we may judge from the country and climate that they inhabit, the most miserable people on earth, I mean the Greenlanders; which, from the account given of it by an author who should have been very well informed concerning it, may be also reckoned a language of art. The author I mean is David Crantz, one of a religious society in Moravia called *Unitas Fratrum*, which was instituted chiefly for the purpose of propagating the gospel among barbarous nations.

He was sent by the society to visit their mission in Greenland; and he has published a history of that country, from the memoirs of missionaries who had been there about thirty years; and, among other things, he has given us a particular account of the language of the country; from which it appears, that it is not a barbarous language, tho' spoken by so barbarous a people, but a language of art. The substance of what he says of it is, That it has all the several parts of speech, even the adjective, and is very rich in words. The tenses of its verbs, of which there are five conjugations, are formed by flexion. It has one case, viz. the genitive, formed in the same way; the rest by prepositions, as we form ours: And it has a dual number, as well as a singular and plural, all marked by the termination. What is more, it has a regular syntax, the substantive always beginning the sentence, as our author says; the other words being connected together by copulatives and infinitives. Our author, who appears to be a man both of sense and learning, says of this language, ' That it is ' not so raw and incomplete as we might expect from such unrefined people. One ' might rather entertain the conjecture, that

‘ they must have had some judicious clear heads, to reduce their tongue to such an artful and pretty rule. * ’ He has observed in it one thing in which it agrees with the Hebrew, viz. the use of *affixa* and *suffixa*. And it may be further observed, that it has, like the Hebrew, no more than the three primary tenses, viz. the present, past, and future. And, what I think a remarkable conformity, the radical part of the verb, from which all the rest are derived, is the third person singular of the past tense: And there is also a resemblance in the order and structure of the sentences, the substantive always going before the adjective or participle. I think it therefore evident, that this language is not the invention of so barbarous a people, but that it is a dialect of the Hebrew, or Teutonic, or some other oriental language, that has come from the Eastern parts of Europe, or the Western parts of Asia, having spread with the people into this remote northern country, from whence it has been propagated to the countries adjoining to Hudson’s Bay inhabited by the Esquimaux Indians, who, as it is now discovered, speak the same language with the

* Vol. I. b. 3. c. 6. p. 218.

Greenlanders. Of this wonderful propagation of language through countries so remote from one another, I shall say more in the sequel.

The last language I shall mention deserves particular notice, being the most artificial, if not the most perfect language, of any that I have hitherto mentioned. It is the language of the *Algonkins*, once a great and flourishing nation in North America, till they were almost entirely destroyed by the Iroquois. It is one of the two mother-tongues in that part of the world, the Huron being the other; and all the other languages in North America are dialects of one or other of these two. La Hontan says, that the Algonkin is the learned language of Canada, as much esteemed there as the Greek and Latin are in Europe*; and he has given us some account of it, but a very imperfect one. I have had occasion to be better informed concerning it by the French Jesuit I mentioned before, who had a much better opportunity of knowing it than the Baron Hontan; for he was seven years missionary among the Albinaquois, a nation of Indians, who speak a dialect of this language, of which

* Vol. 2. p. 220.

he was perfectly master, as otherwise he could not have discharged the duty of his mission. What he told me of it was in substance as follows.

Although it be, as I have said, a very artificial language, as will afterwards appear, it still retains several marks of a primitive language, though much farther removed from the origin of the art than the other mother-tongue of North America, that being the language of the most antient people of North America, viz. the Hurons. For example, it has not that part of speech we call an adjective, that is, a word denoting a *quality*, existing in an ind finite subject; but they supply it by the verb; as if, in English, I said, Instead of *a wise man, a man who is wise*; or, to bring it nearer to the idiom of their language, as if, instead of saying in Latin, *vir sapiens*, I should say, *vir qui sapit*.

2do, They have no word to express the action simply and absolutely; *ex. gr.* they have no word denoting the abstract action of *doing*; but it must be doing some particular thing, or kind of thing. In like manner, they have no word to express simply *going*; but they have one denoting *going by land*, and another expressing *going*.

by water. And there is in all their verbs a distinction, which shall be afterwards explained, whether the subject of the action is definite or indefinite: So that the verb always comprehends in some sort the subject, and never denotes the action simply and abstractedly.

3^{to}, They have no possessive pronouns, but only a primitive one, which they likewise use for a possessive.

4^{to}, They had not originally in their language any abstract nouns, that is, substantives expressing abstract qualities of substances, though they have now got ten such words, as shall be afterwards explained

5^{to}, They have not yet got ten words expressing abstract relations, such as *father* or *son*; but they have words which express *my father*, or *my son*.

These are the marks of rudeness and simplicity in their language. But the following shew a great deal of art and contrivance. For, In the first place, as to the sound of their language, they have a great deal of variety, using all the letters we use, except only the *f* and the *v*, which none of the North-American languages use: Whereas the Huron, besides wanting the *f*, has none of the labial consonants. Then, they have several

aspirates, and also long and short syllables. And Mr Roubaud mentioned some words signifying different things, which are only distinguished one from another by the length or shortness of the syllables. Further, the language is far from being harsh, or of unpleasant sound: But, on the contrary, is sweet and flowing; for you very seldom find in it two consonants together; and by elisions, where it is necessary, they prevent the gaping of vowels upon one another.

With respect to the words considered as significant, they use those three great artifices of language which I have so often mentioned, viz. composition, derivation and inflection.

With respect to composition, they have as much of it as any other language, and by far the greater part of the words are composed of verbs and adverbs, (the adverb being a part of speech much used by them), expressing in a very ingenious manner the nature of the thing signified. Derivation also is used by them as in other languages; and particularly they have a great number of derivatives from the third person singular of the present of the verbs, by which they ex-

prefs the abstract action of the verb, as from *curro, cursus*.

As to inflection, they have more of it than any other language I have heard of. For not only in that way do they form the cases of their nouns and the tenses of their verbs, but they form verbs expressing so many different modifications of the action, that it is difficult to ascertain the number and variety of them.

With respect to the cases of their nouns, they have three formed by different inflections, viz. the nominative, accusative, and ablative, if the noun be *noble*, that is, if it expresses a *living thing*, or *what belongs to a living thing*: But if it be *ignoble*, that is, expressing an *inanimate thing*, it has only two cases, a nominative and accusative.

The verbs, in the first place, form their tenses by inflection: I mean their present and their past; for, as to the future, they form it as we do, by auxiliaries, such as *shall* and *will*. They have two forms of the perfect, both distinguished by inflection; the one denoting, that they themselves saw the action that is past, and that therefore it may be depended upon as certain; the other

expressing, that they have it only by report.

The voices and moods they form also by inflection; by which I would be understood to mean, an alteration of, or an addition to, the final syllable of the word.

As to the persons of their verbs, they form two of them, viz. the first and second, by prefixing to the verb the pronoun; but as there is only one other person, they say that needs no mark of distinction; and therefore they give you only the simple tense of the verb, without any thing prefixed. They have, like some other of those barbarous languages which I have observed, two first persons plural, distinguished by inflection; the one including the person to whom the speech is addressed, as when we say, *we are all men*; the other excluding him, as when an Englishman, speaking to a Frenchman, says, *we Englishmen do so and so*. This in French is denoted by the expression, *nous autres*.

But, besides what is commonly expressed by inflection of verbs, the Albinaquois denote in that way the subject of the action, or the noun that is governed by the verb,

whether it be noble or ignoble, and also whether it be in the accusative or the ablative; so that the verb is truly *declined*, as well as the noun, and agrees with the noun it governs, much in the same way that noun and adjective agree in the learned languages: And further, they express by inflection a distinction not known in any other language that I am acquainted with, whether the subject of the action be a definite and particular thing, or an indefinite.

But, besides all this, they express by inflection of, or addition to the termination, the various modes of the action: And in this way they create derivative verbs almost without number. Thus, they have not only frequentative verbs, like those of the Latin, and verbs which denote that the action is reflected upon the actor, something like the Greek middle verbs; but they have verbs which denote the possibility of doing or suffering the action, in place of whom it is done, whether in my own place, in your place, or in the place of a third person; and, in like manner, for whose behoof, &c. And further, by the addition of a syllable, they express whether the action is to be considered as a great action, or contrarywise; and whether as a sad or doleful one; and, lastly, they have

a derivative verb which expresses the negation of the action.

By this variety of expression, the forms of their verbs become almost infinite; so that Mons. Roubaud reckons, that, from a single present of a verb, there may be some hundreds of different forms derived, and many more, if the verb be noble; and as the different forms are commonly expressed by addition of syllables, this makes their verb run out into a prodigious length of word. He gave me for example the verb *neteberdan*, which signifies, *I govern some indefinite thing*; and he showed me more inflections and changes of that verb than I could well number, besides very many more which he could upon recollection add. I observed, that in all those changes the two syllables *te-ber* always remained invariable, and they were the only part of the verb that did so; from whence I was apt to conclude, that these syllables denoted the action of the verb absolutely and simply. But he said, there was no such thing in the language, and that *te-ber*, though it may be called the theme or radical verb, had no signification at all by itself.

He assured me at the same time, that this almost infinite variety of their verbs was all according to the exactest rule and strictest analogy, without those irregularities and anomalies to be observed even in our learned languages. And, if you once know the rules by which those different verbs are formed, you may form as many of them as you have occasion for with great facility. One day, in conversation with a savage of his mission, he observed to him the great order and regularity of his language, with which he seemed to be much surpris'd, as a thing he had never before attended to. He said, the invention of a language appeared to him an extraordinary thing, and wondered who had invented his language. You Europeans, says he, have much more wit than we; but has any of you invented a language?

The women among them, as they are their historians, who preserve the memory of their families and genealogies, so they may be also called the keepers or preservers of their language: For they really understand so much of the grammatical art, that they not only know the rules of speaking, but can render a reason for them; while the men are contented to learn from them the

practice, without troubling themselves much about the reason for it.

Mr Roubaud observed, while he was among them, that the missionaries had made considerable alterations in their language, not only by giving them new names for things, but by introducing new forms of speech; and particularly, that they had taught them to form from their verbs abstract substantives; that is, substantives expressing the abstract quality, such as we form from our adjectives, as from *good*, *goodness*, and the like. And he suspects, that they have learned in like manner from the missionaries to form verbal nouns, *i. e.* substantives expressing the action of the verb abstractedly, as from *curro*, *curfus*; and his reason for thinking so is, that they do not use this way of speaking in conversation among themselves, but only with the missionaries. And this, and other alterations which the missionaries have introduced, makes the language they speak with one another so different from what they speak with the missionaries, that he was often at a loss to understand them conversing with one another.

From this account of the language of the

Albinaquois I am disposed to conjecture, that, in the progress of language, which I imagine has been very long, there has been invented a language too artificial, such as this of the Albinaquois, and such as it is said the Armenian language is *, before a language of complete art was formed, which is always as simple as the nature of the thing will permit. First, there was a language altogether rude and barbarous, such as we have described; then was formed a language of art; but by very slow degrees, as we have also seen. Before the art was completed, there was an intermediate stage of a language, too intricate and complex in its structure. And in this respect I imagine the invention of language resembles the invention of machines. At first a machine is contrived very clumsy, and answering very ill the purpose for which it is intended; then art falls to work with it, and makes it better; but so complex, and with so many springs and movements, that it is not easily used. But art still proceeding, and observing the defects and inconveniences, at last devises a

* See Dr Smith on the formation of languages, p. 452. where he says, that the Armenian language has no less than ten cases.

ray of simplifying the machine, and making it perform its operations with as few powers and movements as possible: And this is what I call the perfection of art. To this perfection the language of the Albinquois is not yet arrived: But I cannot doubt, that if the Albinquois were to cultivate arts and sciences as much as the antient Greeks did, and among other arts the art of language, they would come at last to simplify their language, and make it perhaps as perfect as the Greek.

Before I conclude this chapter, it may not be improper to present to the reader the progress of the first operations of the human intellect, I mean abstraction and generalization, as deducible from the progress of language. For, as I have observed, we can, in that progress, trace, with great certainty, the progress of the human mind. And, in the *first* place, the individual is generalized, as it exists in nature, the substance with its qualities, the action with its circumstances. So that, at first, there will be no abstraction, except of the most general attributes, such as those of time and place. For, without some previous abstraction, as we have seen, there can be no generalization; and the perception

would be nothing but a perception of sense. Then more qualities would be abstracted from the substance, more circumstances from the action; and the idea would then consist of the substance, and its principal qualities, those, at least, which attracted the attention of the observer most; and of the action and its principal circumstances. The idea of a *bear*, for example, would be taken off only with the qualities of size, strength, or fierceness; and the idea of the action of *beating*, with the circumstances of violent, or gentle, with or without effusion of blood. The next step, in this progress of the mind, is to divest the substance altogether of its qualities, the action of its circumstances; and so form a separate idea of each. And thus far the Hurons have gone. For they have generalized many substances by themselves; and they have begun to generalize actions in the same manner. The next idea would be farther removed from the individual, and more the operation of the intellect: For it would represent something that does not exist in nature, but is intirely the creature of the mind; I mean the idea of a genus, such as that of animal or vegetable. And here too the Huron has begun to

make some progress: For tho' he have not come so far as the ideas I have mentioned, yet he has formed the notion of a *quadruped of the forest* and of a *tame quadruped*. And here ends the progress of the Huron; so that the further progress of the mind we must trace in other languages more perfect. And from these we discover, that the next step of abstraction and generalization is the idea of qualities still inherent in some substance, but not in any particular or definite species of substance, but in substance in general. And this idea is expressed by a part of speech well known by the name of adjective, but which is not to be found in the Huron, nor in any other barbarous language, that I know. The next step we can also trace by the means of language, and it was to form an idea of the quality abstracted from every substance, definite or indefinite. This idea is expressed by what the grammarians call an abstract noun, denoting the quality *in abstracto*, not *in concreto*, as it is denoted by the adjective. Of this kind are the nouns *goodness, justice, bravery* and the like. And that such was the next step, in order of time, is evident from this, that, in our language, in Greek, and

Latin, and, I believe, every language, the nouns of this kind are all derived from the corresponding adjectives; whereas, if the order of things had been followed, and not the progress of our minds, the etymology would have been just the reverse: For the abstracted quality is undoubtedly prior, in the order of nature, to the quality joined with any substance. And, accordingly, by philosophical etymology, as I shall shew in another part of my work, *just* is to be considered as derived from *justice*, not *justice* from *just*.

The next step, I imagine, would naturally be, to form separate ideas of the several circumstances of the time, place, and manner of action—of the persons acting—whether the first, second, or third person—the dispositions of the mind of the speaker with respect to the action—and, *lastly*, whether the action was suffered, or done. By such abstractions and generalizations, were produced adverbs, conjugations of verbs, tenses, moods, and voices.

The last part of this progress, that appears from the structure of language, is the formation of ideas of the connections and dependencies of things upon one ano-

ther, and their relation to one another in respect of time, place, situation, cause and effect, and the like. From these ideas arise the declension and cases of nouns, and those parts of speech we call prepositions and conjunctions. It is by such words that the syntax of language is chiefly formed; and as syntax is the last thing perfected in language, it from thence appears, that those abstract ideas of relations are among the last formed by the human mind.

The progress, by these steps, I am persuaded, has been very slow; for which it is not difficult to account, from the explanation I have given, in the beginning of this work, of the nature of abstraction. For, being immersed, as we have shewn, in matter and sense, at our first entrance into this life, and perceiving only by the intervention of bodily organs; when we come to think in this new way, and which may be called unnatural, as it separates what is in nature united, it is no wonder that we go on slowly, and with difficulty, abstracting very little at first, then more; and still going on from abstraction to abstraction, till at last we arrive at the ideas of highest abstraction, which are of all others

the simplest, and in the order of nature first, but last in the order of our conceptions. Nor is it to be wondered that a very small part of mankind are able to ascend so high, when we consider how far those universals are removed from our original perceptions.

Thus it appears, that, from the study of language, if it be properly conducted, the history of the human mind is best learned, especially in the first steps of its progress, of which it is impossible there can be any other record than what is preserved in language.

C H A P. XI.

Several Questions concerning the first Languages.—What Words of them were first invented, or what Names of Things.—Whether they have any Radical Words.—Whether there be only one primitive Language.

IT may be asked concerning those primitive languages, What words in them were first invented? My answer is, That

if by *words* are meant what are commonly called *parts of speech*, no words at all were first invented ; but the first articulate sounds that were formed denoted whole sentences ; and those sentences expressed some appetite, desire, or inclination, relating either to the individual, or to the common business which I suppose must have been carrying on by a herd of savages, before language was invented. And in this way I believe language continued, perhaps for many ages, before *names* were invented *. For that the first articulate cries ex-

* And now I will give the explication I promised of the passage above quoted from Horace.

“ Donec verba quibus voces sensusque notarent,

“ Nominaque invenêre.”——

Where Horace makes a distinction betwixt *verba* and *nomina*, which has not been explained by any commentator, that I know ; but which, if rightly understood, agrees perfectly with my system ; for by *verba* he means, as I understand him, those articulate sounds expressing only appetites and desires ; and this I think he has sufficiently explained himself by the description he has given of them,—*quibus voces sensusque notarent* : Importing, that the first words marked the inarticulate cries formerly used, which I understand to be meant by *voces*, and by consequence the inclinations and feelings of the mind expressed by those cries, which I take to be the meaning of the word *sensus* : For that word in Latin does not denote *ideas*, or the operations of the intellect, but the movements of that part of our mind which is

pressed the names of things, I can no more believe than that the neighing of a horse, or the lowing of a cow, is a name for any thing.

If it be further asked, What names were first invented? My answer is, The names of the objects that they were most conversant with, and had most frequent occasion to name. Thus we see the Hurons first gave

the seat of desire and inclination, and is called by the Greek philosophers the *Orectic*, (*το ορεκτικον*). So it is used by Cicero, *lib. 3. de oratore cap. 25.*; where he speaks of the *sensus et dolores, quos habet oratio*. And every where in his writings, so far as I observe, *sensus animi*, or *sensus* simply, denote always the affections, inclinations, or what we commonly call the feelings of the mind. And it was used in this sense, by a very natural metaphor, from the senses of the body, which are denoted by *sensus* in its proper signification; as Quintilian has observed, *lib. 8. cap. 5. initio*. It is true, that Quintilian, in this passage, tells us, that the use of the word, in his time, was extended to signify all the conceptions of the mind—*sed consuetudo jam tenuit, ut mente concepta sensus vocaremus*. But this use of the word certainly did not obtain in the days of Cicero, nor, I presume, when Horace wrote, which could not be long after Cicero's death. If the words be understood in this sense, (and I do not see in what other they can be understood), Horace very properly places the *verba* first, as being undoubtedly first invented; and then the *nominis*, which came next in order, and which certainly signify the names of things, not whole sentences expressing some desire or volition.

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names to trees, and to those animals that they hunted or tamed.

It is an ingenious conjecture of the author before quoted *, and I think a very probable one, that the first names of objects were proper names denoting the individual; but afterwards, by being applied to objects of the same kind, on account of their resemblance, they became general names of the species. For the natural progress of the human mind, with which language always keeps pace, is from individuals to generals; and therefore, as individuals must necessarily have been first known, it is likely that they were first named.

The radical words in a formed language may be said, in one sense, to be the first words of the language, and accordingly are called *primitives*. But such words are far from being the first invented words: For the barbarous languages having no composition or derivation, can have no roots; but they belong only to artificial languages, and are the invention of the grammatical art, to make the words of a language connect and

* Dr Smith on the formation of language, in the beginning.

hang together, and to save the too great multiplication of them, as shall be afterwards shewn. And, in general, it is in vain to seek for any thing like art in the truly primitive languages; which being produced by the necessities of life, and used only to serve the purpose of those necessities, had at first no rule or analogy of any kind: So that, whatever we find like art or regularity in them, we are sure is an improvement of the original jargon.

There is another question concerning language that has been much agitated, namely, Which is the truly primitive language from whence all the others are derived? But first I think it ought to be determined, whether there be any one primitive language. Upon the supposition indeed, that language could not have been invented by man, but was revealed from heaven, it is evident, that this revealed language is the only primitive one, and that all the other languages of the world are only dialects of it, more or less pure. And then the question will be, Whether that first language is yet extant? or, if it be lost, What language now remaining comes the nearest to it? But, on the other hand, supposing language to be

the invention of man, (and it is upon that supposition I proceed), I see no reason to believe, that it was invented only by one nation, and in one part of the earth; and that all the many different languages spoken in Europe, Asia, Africa, America, and the new world that we have now discovered in the South sea, are derived all from this common parent. And, accordingly, I have all along spoken, not of one primitive language, but of primitive languages in general. At the same time, I am far from being of opinion, that every nation has invented the language it uses: On the contrary, I am persuaded, that so difficult an art as language has not been the invention of many nations; but having been once invented, and being by its nature of long duration, as well as easy communication, it has been propagated to countries very distant from those where it was first invented. But the duration and propagation of language is a curious subject, which deserves to be considered and explained at some length; after which, we shall be better able to judge whether one language could be spread all over the face of the earth.

C H A P. XII.

Of the Duration of Language, and the Facility of its Propagation.—Of the Celtic, and the great Extent of Country over which it is spread.—Of the Teutonic, and its Propagation.—Of the Greek and Latin, and their Connection with the Teutonic.—That the Latin is the same Language with the ancient Pelasgic; and of the Affinity betwixt the Latin and Hebrew;—also betwixt the Latin and Etruscan.

AS language is among the first arts invented by men, so it is among the last that are lost. It cannot be totally and at once lost, except by the total destruction of the nation, either by some natural calamity, like that of the Atlantic island sinking, as it is said, into the sea, or by the extirpation of war. In this last way the Celtic language was lost in England, when it was conquered by the Saxons, and was preserved only in the

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mountains of Wales, which were not conquered by them. But, in the case of most other conquests, the language of a country has not been totally lost, but mixed with that of the conquerors; and out of that mixture a corrupt language produced. This was the case of the conquest of the several provinces of the Roman empire by the northern nations. In Italy, for example, the language that took place after it was subdued by the Lombards, was a mixture of Latin and the language of that people, which is the present Italian. In France, after the conquest of the Franks, the Language was mixed of Latin, of Tudesque, or Teutonic, which was the language of the Franks, and of what still remained of the antient language of the country, viz. the Celtic; and of those three languages the modern French is composed *, but principally of Latin.

But it has sometimes happened, that the conquered retained their language entire, and that even the conquerors adopted it. This was the case when the conquered nation was much more numerous than the

* See *Monf. Bullat's* preface to his Celtic Dictionary.

conquerors. For example, when the Normans conquered England; as they did not, like the Saxons, extirpate the people, and as they were but a small number, compared with the body of the English nation, English continued to be the language of the country, notwithstanding that the Norman was the language of the court and of the law, and that the Normans, for many years after the conquest, were possessed of all the great baronies, and held all the offices of dignity and trust in the kingdom; yet, under all those disadvantages, the English language stood its ground, and at last prevailed over the Norman, and came to be the general language of the country. In like manner, and for the same reason, the Tartars, tho' they have conquered China thrice, and are now, and have been for many years, in possession of it, have not established their language there; but, on the contrary, the Chinese is not only the language of the country, but even of the court, and of all kinds of public business. The Romans likewise; when they conquered Greece, did not make their language triumph there as well as their arms; not only for the reason I have mentioned, viz. the smallness of their

numbers, but for another reason, as I imagine, namely, the greater excellency of the Greek tongue, which made it in time prevail even over the language of their conquerors. This happened after the seat of the empire was removed to Constantinople: For, though Latin continued to be the language of the court at Constantinople, and was the language of the law for more than two hundred years after, down to the time of Justinian the Emperor, who compiled a great body of law in that language, which is the Roman law that we use at this day; yet the Greek at last prevailed, insomuch that, within less than a hundred years after Justinian, they were obliged to translate his collection into Greek *. And when Constantinople was taken by the Turks, the Latin was as much lost in the Eastern empire, as the Greek was in the West.

For the reason last mentioned, the very reverse has happened in some instances, (such is the variety of human affairs in the matter of language, as well as in every thing

* This translation is what is called the *Basilica*; and has been much used by *Cujatius*, and other learned lawyers, in explaining and correcting Justinian's collection.

else); and the language of the conquerors, though few in number, has become the language of the conquered nation. Thus, when the Incas of Peru conquered the several provinces of that country, they introduced, with their other arts, their language, which the people learned, instead of the barbarous jargon that they spoke before*; and the same, I am persuaded, was the case of the barbarous inhabitants of Greece when they were conquered, or rather tamed and civilized, by the Pelasgi.—But of this I will speak more hereafter. The Romans too endeavoured to make their language universal through the whole *orbis Romanus*; and, in some of the provinces, particularly in Gaul, they did make the Latin the prevailing language. But still the Celtic continued to be spoken, at least among the lower sort of people: and it is for this reason that, as I have just now observed, the French has at this day some Celtic in its composition.

And not only is language the longest lived of all the arts of men, but it may be said

* *Garcilasso de la Vega's* Royal Commentaries of Peru, lib. 7. c. 1. p. 249. ; c. 3. p. 253. et seqq.

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to live even after its death: For by the writing-art languages have been preserved many hundred years after they ceased to be living. In this way the learned languages of Greek and Latin continue still to be the admiration and delight of the scholar; and the Hebrew, which has ceased to be spoken these two thousand years, (for it appears to me that the genuine Hebrew was lost among the Jews as a living language during the Babylonish captivity), is still to be understood. And what is yet more extraordinary, some languages, even without literary monuments, have been preserved in the countries where they were spoken, long after they ceased to be spoken. This happens by the names of places; for in this way the Celtic is preserved, both in France and Spain, without any written monuments: And indeed there are very few such monuments of that language to be found any where. As language therefore is the most lasting of all the memorials of men; so, of language itself, the names of places are what last the longest.

Another observation that I will here make concerning language is, that it is not only most permanent and durable, but it is one of

those arts which men easily carry about with them, and perhaps is that of all others which is the most easily communicated, especially to those who have been in the use of speaking any other language; for to a mute savage it would, I believe, be of very difficult communication. It is by this property of language that the same languages have been propagated to so many parts of this earth: For where-ever the people who spoke them went, there also the language would go. Now, as in the early ages of the world the migrations of nations, or of colonies from them, were very frequent, it happened in that way that languages were very far spread: So that there is nothing more certain, than that every country has not invented a language for itself; but, on the contrary, there is the greatest reason, as I have said, to believe, that language has been the invention but of few countries, and that from those countries it has been propagated to many others. It is of this propagation of language that I am now to speak; and I will begin with the language of the Celts, who certainly, if not the most antient, were among the most antient inhabitants of Europe.

The Celtic, if I can believe the accounts I have heard of it, is spread over a great part of the world, and is to be found in places so remote from one another, as shews, that there must have been a most extraordinary intercourse and communication among men in antient times. The French Jesuit above mentioned, from whom I got my information concerning the language of the Albinaquois, told me as a fact which he himself could attest, that one of his mission having lost his way in the woods, and strolled into the country of the Esquimaux, staid long enough there to learn the language of that people; after which he came back again to his countrymen; and happening one day to go aboard a French ship at Quebec, he found there among the sailors a *Basque*, that is, a native of the country at the foot of the Pyrenean mountains on the side of France, whom, by his knowledge of the Esquimaux language, he understood very well, and the Basque likewise understood him, so that they conversed together. Now the language that the Basques speak is undoubtedly a dialect of the Celtic *; and it is now discovered,

* This is a fact disputed by some; and there is a Spanish dictionary and grammar of the Biscayan lan-

that the Esquimaux language is the same which is spoken by the natives of Greenland. So it appears, that the Celtic was not only the antient language of France, Spain, Britain, and Ireland, but that it has spread itself over the northern parts of Europe and America.

And further, with respect to this language, I am informed by a gentleman from the highlands of Scotland, who was some years

guage, which is a dialect of the Basque spoken on the other side of the Pyrennees: And from this grammar and dictionary it appears, as it is said, that there is no connection betwixt it and that dialect of the Celtic spoken in the highlands of Scotland, commonly called *the Gaelic* or *Erse*. On the other hand, I am credibly informed, that a Welch gentleman, of the name of Williams, who was some time in the country of the Basques, says, that, at first, indeed he did not understand their language; but, when he had been some time among them, he discovered that the difference betwixt it and the Welch was in the pronunciation, more than in the words; so that he came soon to understand them, and they him. It is, however, probable, that, if he had only seen the words in a grammar or dictionary, written in the letters to be sounded after the Spanish fashion, he would hardly have discovered any affinity. Besides this, there is a curious fact, related by Lhoyd in his *Archæologia*, that the names for numbers, in the Biscayan language, are the names of the fingers in Welch. So that the name of the *thumb* stands for *one*; the name of the *forefinger*, for *two*, &c.

in Florida in a public character, that the language of the natives there has a great affinity with that dialect of the Celtic which is spoken in those highlands; and particularly, that their form of salutation, by which they ask you, *Are you well?* is the very same *.

* It seems very extraordinary how the Celtic language should have found its way from Europe, or the north-most part of America, to a country so very remote as Florida, through so many nations, who, as far as we know, speak languages altogether different. But there is a fact related by one *Herbert*, a Welchman, that will account for it. This Herbert was a great traveller in the last century, and has published a book of travels, in which he has taken occasion to relate, that a dispute having happened about the succession of the kingdom of Wales in the twelfth century, the party that was worsted, with their prince at their head, embarked, and went in search of a country where they might live quietly; and having directed their course westward, after a long navigation, they landed somewhere in the gulf of Mexico, and made a settlement there. After which a part of them having returned to Wales, came back again with more ships, and a greater number of men, in order to reinforce the colony, which had been much weakened by the attacks of the natives. This, our author says, is recorded by several Welsh historians; and he speaks of it as a fact that cannot be contested. And indeed the truth of it is strongly supported by the affinity which the gentleman above mentioned observed betwixt the language of Florida and the Celtic,

Those who would desire to know more of this very antient language, and of the many languages that are supposed to be derived from it, may consult M. *Bullet's* me-

of which the Welsh is a dialect: For it would appear, that this colony of Welsh, after having in vain tried to support themselves against the natives, have mixed and incorporated themselves with them, and at last been totally lost in them. There are other proofs of the fact alledged by our author, such as the names of capes and promontories in Florida, and of beasts and birds, which he affirms to be Welsh. And a further proof of some European nation having made a settlement in Florida many years ago, is a fact that I have from information which I think I can trust to, that there are regular rows of trees to be found in that country, carried on in straight lines for a great way. See *Kalm's travels, vol. 3. p. 121. et seqq.* from whence it appears that there are marks of culture by the plow in North America, and stone pillars still to be seen.

All this, I know, will appear incredible to those who are prepossessed with the opinion, that Columbus and Americus Vesputius were the first discoverers of America and the adjacent islands. But the fact truly is, that, before this discovery by the Welsh, America had been found out by some Norwegians from Greenland: For the Norwegians having made a settlement in Greenland in the end of the tenth century, some adventurers from thence, in the beginning of the eleventh, discovered North America, and made a settlement somewhere, as it is conjectured, about the mouth of the river St Laurence; where having found the vine growing, they from thence called the country *Winland*. This is re-

moirs of the Celtic language, published in French, in three volumes in folio, at *Bejanson*, in 1759.

The Teutonic also is a language very far spread. It is at present the language of all Germany, Holland, Denmark, Sweden, Norway, and Iceland; and the English is a dialect of it. The parent of this language is the Gothic; of which, besides some inscriptions, there is only extant a translation of the four gospels, preserved in the university of Upsal in Sweden, and some fragments of the epistle of Paul to the Romans. But we know it was once the language, not only of the Goths, but of the Vandals, the Lombards, and the Jepidae: For Procopius, a contemporary historian, tells us, that all those nations spoke the same language *. Now,

corded in the annals of Iceland, which was first peopled from Norway, and from whence the colony came that made the settlement in Greenland. See a *History of Denmark*, published by one *Mallet*, in French, in 1765. In short, it appears from the whole history of mankind, that wonderful migrations of people have happened in different ages of the world, and by that means languages have been propagated to countries very remote from those where they were first spoken.

* See *Procop. de bello Vandalico, lib. 1. cap. 2.*; and *Grot.* preface to his translation of *Procopius*.

as the Goths, and, in general, all the conquerors of the Roman empire, came from the ancient Scythia and Sarmatia, that is, the north-east parts of Europe and north-west of Asia, comprehending all the country now known by the name of *Tartary*, and a considerable part of Muscovy and Siberia, it is evident, that, some time or another, the Gothic must have been the language of all that great tract of country. And accordingly there are still remains of it there to be found. For there is so great a resemblance betwixt the language presently spoken in Persia * and the Teutonic, that it is impossible it can be accidental. And Busbequius the German, who in the sixteenth century was sent ambassador by the Emperor to Constantinople, relates †, that he there conversed with two men from Crim-Tartary, and found, that the language there had a great affinity with the German. For proof of which, he has given us their names of numbers, which

* That country is at present inhabited by a Tartar nation; and such were the Parthians, who possessed themselves of it some time after the death of Alexander the Great. See *Herodian's History*.

† *Epist.* 4. p. 136.

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are plainly Teutonic; and also several other words, out of many more, that he heard, which any man who knows English may understand. And not only have they those vestiges of the language of the Goths still remaining in the east; but their characters, I mean the Runic letters, are to be found there. For Strahlemberg, the Swedish officer, who has written an account of Siberia and Tartary, relates, that he found Runic inscriptions in the deserts of Tartary. *

* See Mallet's History of Denmark, book 1. cap. 13. p. 345.

It is a vulgar error, that the swarms of people, which at different times over-ran the Roman empire, under the names of *Goths*, *Wisigoths*, *Ostrogoths*, *Vandals*, *Allands*, *Lombards*, and *Jepidae*, came originally from the north, and were northern nations; for the fact is, that they all came from the east, which is the true *officina gentium*, not the north; and were but one nation, divided into different tribes, and distinguished by different names. For they were all originally Goths or Getes, two names for the same people, as is evident from many passages of antient authors, collected by a very learned writer, *Robert Sheringham*, *de Anglorum gentis origine*, cap. 9. p. 179. et cap. 10. p. 189.; where he likewise shews, that the *Gothi* were the same people with the *Scythae*; the former being the name which the people gave themselves, the latter the name which the Greeks gave them; and which was the only name by which they were known in antient times, before they broke

If it could be further proved, that the Celtic, and Teutonic, or its parent the Gothic, were originally the same language,

into the Roman empire. Now, that the Goths came from the east, and particularly from the *Palus Maecotis*, and adjoining countries, is evident, not only from the monuments of them still to be found there, such as their language and characters, but from what Grotius, in his preface to Procopius, relates of one Jofaphat Barbarus, a Venetian nobleman, who had lived in those countries; and reported, that, in the neighbourhood of the *Palus Maectis*, there was a people, who called themselves *Goths*, and their country *Gothia*. And Joseph Scaliger, in his *Canon. Isagog. lib. 3. p. 138.* affirms, that there were people calling themselves Goths, who lived in the territory of Praecop in Crim-Tartary, and used the Gothic letters invented by Wulphila the Gothic bishop. It appears, therefore, that the greatest part of the present inhabitants of Europe came from the Tauric Chersonese, and other countries about the Euxine and *Palus Maectis*. Among the last invaders of the Roman empire were the Hunns, who, as Ammianus Marcellinus informs us, lib. 31. cap. 2. came likewise from beyond the *Palus Maectis*. They, after ravaging Germany, France, and Italy, settled at last in Hungary; and are now called by all the other nations of Europe *Hungarians*; but they call themselves *Majars*. What this name meant no body knew till lately, that the Russians discovered, in that tract of country which lies betwixt the Black sea and the Caspian, a people who call themselves by that name. This fact I have from a gentleman of my acquaintance, who has been much abroad, and of whose accuracy as well as veracity nobody, who knows him, can have any doubt.

which is the opinion of M. Bullet above mentioned, it would, I think, establish this proposition, That there was but one language antiently spoken all over the north, north-east, and west of Europe, and the northern and western parts of Asia. Now, I should think it might be discovered, with pretty great certainty, whether there was any affinity betwixt the Celtic and Teutonic, by comparing the most antient remains of the Celtic, which I believe the poems of Ossian are, with the most antient remains of the Teutonic, such as the Edda, and other old Icelandic poems, and with, what is still more antient, the remains of the Gothic. This would be a very fine field of criticism, by which I think a great discovery might be made, not only in the matter of language, but with respect to the history of mankind: For, if it could be proved, that the Celtic and Teutonic languages were originally the same, it would go far to prove, that the two races of people were likewise the same originally*.

* Since the first edition of this volume was published, I have seen a pamphlet, written, as I am informed, by Major Vallency, the same who has published a grammar of that dialect of the Celtic spoken in Ireland. In this pam]

That Greece was inhabited in very antient times by a race of people that came from the east, and particularly from Asia, is a fact that I think cannot be controverted. The Pelagi, who, if not the first inhabitants,

phlet, I think he has proved demonstratively, from that specimen of the Punic language which we have preserved to us in a play of Plautus, that the Punic, that is, the Phoenician and the Celtic, were originally the same language. And I think he has likewise shewn, that, in the Island of Malta which was peopled by a colony of Carthaginians, the language spoken at this day has a surprising affinity with the Irish. Now, as it will be shewn in the sequel, that the Greek, Latin, Teutonic or Gothic, Hebrew or Phoenician, were originally the same language, if it be likewise true, that the Celtic and Phoenician are the same, it will follow of necessary consequence, that the Celtic and Teutonic were likewise originally the same. Further, I am informed by the ingenious gentleman mentioned in a preceding note, Sir James Foulis of Colinton, who is very learned in languages, and, among others, has studied the Celtic, that the language of the Mongul Tartars, that is, those Tartars who inhabit the eastmost parts of Asia, to the north of China, is the same with the Gaelic spoken in the highlands of Scotland. This, he says, he discovered, by reading the histories of these great Mongul conquerors, Gengischan, and Tamerlane, where he found the names of places, and things, to be altogether Gaelic, not only the words, but the terminations. This is a curious fact, in the history both of mankind and of languages; for it proves the propagation of men, as well as of words, from the utmost extremities of the east, to the most western parts of Europe,

were at least the first who introduced civi-
lity and arts into Greece, and establi shed rule
and government there *, we can shew from
good authority, came originally from Asia,
where some of them were at the time of the
Trojan war, into Greece †. And, besides

* Οἱ δὲ Πελασγοὶ τῶν περὶ τὴν Ἑλλάδα δυναστευσαμένων
αρχαιότατοι λίσσονται. *Strab. lib. 7.*

† This fact is proved by no less authority than that of
Homer, who, in what relates to geography and the inha-
bitants of the several countries he speaks of, may be ac-
counted a most authentic historian. He reckons the Pe-
lasgi among the Trojan auxiliaries, *Iliad. 2. vers. 840.* and
speaks of them as very numerous; for he mentions them
in the plural number, *Φυλὰ Πελασγῶν.* And as to their mi-
gration from Asia to Greece, we know, that the people
passed from the one continent to the other two several
ways; either by sea, and then they commonly took the
island of Crete in their way; or they passed the Helle-
spont, and came into Greece by land through Thrace,
Macedonia, and Thessaly. Now, it appears, that the
Pelasgi came into Greece both ways; at least it is evident
from Homer, that they were in Crete about the time of
the Trojan war, *Odysf. 19. vers. 172. et seqq.* And by the
same authority it is proved, that they were at that time,
or had been, in Thessaly: For he mentions a tract of
country there, which he calls *Πελασγικὸν Ἀργεῖον, Iliad. 2.
vers. 681.* in contradistinction to the Argos in Peloponne-
sus. And it is to be observed, that he dignifies the Pelas-
gi with an epithet which he bestows upon no other nation,
though very frequently upon individuals: For he calls
them *διοὶ Πελασγοί, Odysf. 19. vers. 177.* The reason his

the testimony of authors, we have still a stronger proof from the names of places, by which we can trace their progress all the way from Asia into Greece, through Thrace,

commentator Eustathius gives for this epithet is, that they were the only people in Greece who, after Deucalion's flood, preserved the use of letters. That they had the use of letters before the people of Greece, and brought them first into that country, I have no doubt; but as they brought with them likewise many other more necessary arts of life, and taught them to the savages of Greece, that of itself was a sufficient reason for Homer's giving them this title of superiority and excellence. But further, by the assistance of Herodotus, the most antient, and, I think, the most diligent and accurate Greek historian that is preserved to us, we can trace their progress all the way from the Hellespont into Peloponnesus; for he speaks of them as having been once settled near the Hellespont, the same Pelaigi, he says, who afterwards inhabited Attica. Then he mentions them as dwelling in Samothracia, and there instituting the Samothracian mysteries. Next, he speaks of them as possessing that part of Thessaly called *Pethiotis*, which no doubt is the Πιλαρσιον *Aegæ*, above mentioned of Homer. This was in the time of Deucalion. The third generation after that, they inhabited, says Herodotus, the country under the mountains Olympus and Ossa, called *Hestiaiotes*. From thence being driven by the Cadmeans, they moved to the country near to Pindus in Macedonia, and took the name of *Macedonians*. From thence to Dryopis; and from Dryopis they came into Peloponnesus, where they took the name of *Dorians*, *lib. 1. cap. 56. et 57.* And not only are the Pelaigi to be in this manner traced from Asia, but there are other nations, or, as I rather believe, other tribes of

Macedonia, and Theffaly *. Now as they came from the east, there is all the reason in the world to believe, that their language was

the same nation, to be found upon the road from thence. Thus the Έλληνας and the Αχαιοί, at the time of the Trojan war, inhabited that part of Theffaly where Achilles reigned, and are mentioned by Homer as his subjects, *Iliad.* 2. *vers.* 684. But these, we know well, in after times, spread themselves all over Greece. The *Hellens* particularly came to be the governing people in Greece, and at last gave their name to the country and the people. And even in Homer's time we see that the *Achaei* had got into Peloponnesus; and were so powerful there, that he calls by their name, as well as by the name of *Danaei*, the whole Greeks.

* Homer tells us, that there was in Asia a Pelasgic city of the name of *Larissa*, *Iliad.* 2. *vers.* 841. There was a city of the same name in Macedonia, another in Theffaly, one in Attica, and a fourth in Peloponnesus. For it seems, that the Pelasgi from Larissa in Asia gave the name of their mother-city, as was very natural, to the new cities which they founded in the different countries where they settled. Thus Helenus in Virgil, built in Epirus,

—parvam Trojam, simulataque magnis

Pergama.

Virg.

For the same reason, they called the rivers and mountains in the new country by the names of those in the old. Thus, there was an Olympus in Theffaly and in Peloponnesus; and, in like manner, there was an Eurotas in Theffaly and in Laconia. See, upon this subject, *Salmaf. De Hellenist. part 2. p.* 361.; where he gives more examples of the like kind.

some dialect of the Gothic, Celtic, or whatever other language was spoken in the western parts of Asia, or eastern parts of Europe; and, as I shall show, that the antient Greek and Pelasgic were the same language, what is here said of the Pelasgic must be understood likewise of the Greek. I know, that the vanity of the generality of the Greeks made their language, as well as themselves, the growth of their country. But the more learned and wise of them were above this vulgar prejudice; and, particularly, Ephorus the historian *, and Plato the philosopher, acknowledged, that the barbarians were more antient than they: And, if so, their language must have been more antient too. And accordingly Plato admits, that

* This Ephorus, as Polybius tells us, was a very diligent inquirer into the origin of nations and cities, and wrote a book upon the subject. He says, not only that the barbarians were more antient than the Greeks, but that Greece, in antient times, was inhabited by various barbarous nations. With him agrees Strabo, who mentions several of those antient inhabitants of Greece, such as the *Caucones*, the *Leleges*, and the *Dryopes*, besides the Pelasgi, p. 494. After this, how ridiculous must the vanity appear of some of the later Greeks, particularly of Diogenes Laertius, who, in his *prooemium*, scruples not to assert, that Greece was the native country, not only of philosophy and arts, but even of the human race!

there are many words in the Greek language which they got from the barbarians; and particularly the words *πυρ* and *ὕδωρ*, denoting *fire* and *water*, and many others *, he says, are Phrygian. And there is the highest probability, that their names for the other two elements came from the same source.

Now, if it be admitted, that the Greek derives from the Phrygian, or any other language in Asia, such words as the names of the elements, which must have been among the first names in every language, it is, I think, a convincing proof that the whole language must have come originally from that country; and the name of one of those elements, viz. *πυρ*, is clearly the same with the German or Teutonic name for that element, *fyr*, or *fire*, as we call it in our dialect of the Teutonic, the *π* being only changed, as is very common, into its aspirate *φ*, marked by the character *f*.

* *Cratylus*, tom. 1. p. 110. edit. Serrani; where he says, that the word *κυνες*, signifying *dogs*, is also a Phrygian word. Now, as the dog appears to be among the the first animals that were tamed by men, and is to be found in countries where there are hardly any other tame animals, as in North America, the name of this animal must be supposed to have been among the first words of the language of every nation where the animal is found.

Another set of capital words in every language are the names of numbers, which must have been coeval with every language, as it is impossible to conceive, that a nation should practise the art of language, or indeed any art, without the use of numbers. And accordingly we find, in most barbarous and imperfect languages, such as the Huron, the names of numbers. Now it appears to me evident, that those names in the Teutonic, the Persian, the Greek, and its most antient dialect the Latin, are the same words, with less variation than could be expected in dialects spoken by nations living in countries so remote from one another, and that must have come off from the parent-stock at times so different*.

Those words also which denote the relations of consanguinity among men, such as *father, mother, brother*, must have been among the first words in every language. Now it appears, that these names are the same in all the four languages, I mean, the Teutonic, Persian, Greek, and Latin: For as to the Greek names $\pi\alpha\tau\epsilon\rho\varsigma$ and $\mu\eta\tau\epsilon\rho\varsigma$, or *ma-ter*, as it is in the Latin, we may know, from

* See the proof of this, in that very learned work of Salmastius, *De Hellenistica*, p. 384.

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our own dialect of the Teutonic, that they are the same in that language; and the Persian *bader* and *mader* are evidently the same. And the Latin word *frater*, or *φρατερ* the old word in Greek, from whence a word, still in use *φρατερ*, is clearly the same word with the German *bryder*, the Persian *brader*, and our word *brother* *.

Since therefore such capital words as the names of the elements, of numbers, and of such near relations, are common to the Greek, Teutonic, or Gothic, and Persian, besides a great many other words of which we can still trace the resemblance †, one of three things, I think, must necessarily be true: Either the Greek must be derived from those other languages; or, *secondly*, those other languages must be derived from the Greek; or, *lastly*, they must be all dialects of the same parent-language. That those other languages are not derived from the Greek, is confessed by the Greeks themselves, when they admit, that the barbarians are more antient than they, and that they

* See *Salmaf. ubi supra*, p. 394. et seqq.

† See many others of them mentioned by *Salmaf. ubi supra*.

~~learned~~ many words from them; and, without such admission, it is evident, from the account I have given of the migrations of the Pelasgi, that the first who imported arts into Greece, and, among other arts, as may be supposed, the art of language, were a people who came from the east. And to me it appears evident, both from the reason of the thing, and from history, that not only all arts and sciences came from the east, but even the race of men who peopled Europe, and brought with them those arts, and, among others, language, without which they could not subsist in the ruder climate and more barren soil of Europe, as I have shewn in the preceding book. It remains, therefore, either that they are all three dialects of the same mother-language, or, what I think more probable, the Greek is immediately derived from the Teutonic or Gothic. But, whichever of these two is the truth; or, even if we should suppose that the Teutonic, or its parent the Gothic, is derived from the Greek; if the affinity betwixt those languages be such as I am endeavouring to shew it is, and if the Celtic be originally the same language with the Gothic; it follows, of necessary consequence,

that the same language, or dialects of the same language, were spoken over the greatest part of Europe, and a great part of Asia.

As to the Oriental languages, it is certain that the Hebrew, Phoenician, Syriac, Chaldaic, and Arabic, have all such an affinity, that either one of them must be the parent-language of the rest, or they must be all children of some common parent; and if it could be proved, that they are connected with the Greek, or Gothic, or its offspring the Teutonic, we should in that way extend the language, which I suppose to have been spoken in Europe, and over the north of Asia, into Asia Minor, Syria, Phoenicia, Arabia, and Chaldea:

And this connection betwixt those eastern and western languages the learned in the Hebrew have endeavoured to make out by comparing that language with the Greek, and particularly with the most antient dialect of the Greek, viz. the Latin. That the Latin is a dialect of the Greek, is well known to every scholar; and that it is the most antient dialect now extant, is evident from the following considerations: *imo*, There are preserved in the Latin language many words which we are sure were

antiently Greek words, though now obsolete in that language*. 2do, The termination in the canine letter *r* is much used in Latin, and was also very frequent in the antient Greek; but, in place of it, the Greeks, in later times, substituted the *s*, as being a pleasanter sound †. 3tio, Even the inflection of nouns and verbs appears to have been the same in the antient Greek as it is now in the Latin ‡. 4to, The Latin alphabetical

* Thus *porcus* was antiently a Greek word for a *hog*, and *ληνος* or *λανος* was the old word for *lana*, *wool*; in place of which they afterwards used the word *σειον*, *vide Salmaf. De Hellenib.* And the antient name of the Greek nation, which was lost in their own language even before the days of Homer, was preserved in the Latin; I mean the name of *Γραικοί* or *Γραικοί*, by which they were called, long before Hellen, the son of Deucalion, gave them his name. See *Prideaux in marmor. Arund. p. 131.*

† This appears from a decree of the Spartan senate, preserved to us by *Severinus Boëtius*, in his treatise of music. This decree is against one *Timotheus*, a musician, who had made some alterations upon their lyre; and in it the musician is called *Τιμοθιορ*, instead of *Τιμοθιος*; *Μιλησιορ*, instead of *Μιλησιος*; and we have *ταρ ακοαρ*, in place of *ταρ ακοας*; and through the whole decree, in place of the final *σ*, which was used in later times, there is a *ρ*.

‡ In the cases of nouns this is evident: As, for example, *ανιμος*, or *animus*, the Ionic genitive is *ανιμοιο*, (afterwards contracted into *ανιμυ*), which very probably was of old *ανιμοι*, and, leaving out the first vowel of

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characters, we know, are the same with the antient Greek. "Formæ literis Latinis, quæ veterrimis Græcorum," says Tacitus in his *Annals*, lib. 2. And Pliny says the same thing, appealing to a monument that was extant in his time:—"Veteres literas Græcas fuisse eisdem pene quæ nunc sunt Latinæ, indicio erit Delphica tabula antiqui æris, quæ est hodie in palatio, dono principum Minervæ dicata." *Nat. Histor. lib. 7. c. 58.* Now, these old Greek letters were no other than the Pelasgic letters of which Diodorus

the diphthong, *ανιμι*, as in Latin. And accordingly in the dative plural it is *ανιμοις*, in Latin *animis*: And, in the accusative, the Latins use the lowering letter *m* for the termination, and say *animum*, which it is very probable the antient Greeks did likewise; but they afterwards softened the *m* into *n*, and said *ανιμων*. And, with respect to the verbs, whoever compares the present of the indicative of the Latin verb *lego*, with the same tense of the Greek verb *λεγω* in the Doric dialect, will find hardly any difference, except that the Latins, in place of the diphthong *ei*, use the simple vowel *i*, throwing aside, as in the former instance, the first vowel of the diphthong. Then the Greeks terminate the third person singular with a vowel; whereas the Latins terminate it with the consonant *t*. And, lastly, the Greeks, in like manner, terminate their third person plural with a vowel, for they say *λεγουσι*, afterwards softened into *λεγουσι*; whereas the Latins say *legunt*; which we can hardly doubt was likewise the antient Greek termination.

Siculus speaks, *lib. 3. p. 236. edit. Wesseling.*; and in which he says Linus and Orpheus wrote their poems. These appear to have been used by the Pelasgi, before Cadmus brought into Greece the Phoenician letters, from which the modern Greek alphabet is undoubtedly derived. As therefore the Latin alphabet is the same with the ancient Greek alphabet, it may be presumed, that their language also is the same, or nearly the same, with the ancient Greek language. For I believe it has very seldom happened, that two nations speaking languages entirely different, have used the same alphabetical character. But, *lastly*, there is the greatest reason to believe, that both Greeks and Romans got their language, as well as their characters, from the Pelasgi. With respect to the Greeks, one part of that nation, viz. the Dorians, were, as Herodotus informs us, Pelasgi; and therefore no doubt spoke the Pelasgic language; and as to the Ionians, who made the other half, we have already seen, that all the Greeks were first taught the arts of life by this wandering people: And, among other arts which they introduced among them, it is highly probable their language was one; for, allowing that the

Greek savages had then some use of language, yet as the Pelasgi were the governing people among them, and gave them both laws and religion *, it is natural to think, that they would adopt the language of their governors, and of a people so much superior to them in every thing; especially if we consider that it must have been a language much better than the jargon they spoke. Nor is this mere conjecture; for we are told by Herodotus, that, while the Pelasgi were the governing people in Attica, the inhabitants there spoke the Pelasgic language †.

* Herodotus tells us, that the Pelasgi were the first people in Greece who sacrificed and prayed to the gods; and it was from them, says he, that the Greeks or Hellenes learned the names of the several gods. They also instituted the *Samothracian* mysteries, the most antient in Greece, *lib. 2. c. 51. & 52.* In short, it is evident, that the Greeks got from the Pelasgi, religion, government, and, in general, all the arts of life.

† *Lib. 1. c. 57.* It is true Herodotus in this passage says, that the Athenians, after they had driven out the Pelasgi, unlearned their language, and learned in the place of it the Greek or Hellenic. But how a whole nation could change its language, without other conquerors coming among them in the place of the Pelasgi, and teaching them their language, (which was not the case), he has not explained; nor do I think it is possible to explain it. But Herodotus here proceeds upon the supposition that the Hellenic and Pelasgic languages

And we cannot doubt that this was the case in the other parts of Greece, where they were the masters. Thus it appears, that the Ionian Greeks, as well as the rest, got their language from the Pelasgi. And with respect to the Romans, it is certain that this same people, the Pelasgi, were among the most antient inhabitants of Latium and the adjoining country, of whom there is any me-

were different, and that the Pelasgic was a barbarous language; of which the only proof he gives is, that two Pelasgic cities which he names, one in Italy, and the other near the Hellespont, spoke a barbarous language, that is, a language different from the Greek of his time. But this does not prove, that their language may not have been the original language of Greece, if we consider how much the Greeks had at that time improved and polished their language; whilst those two cities, living in the midst of barbarous nations, though they preserved their language, cannot be supposed to have made any improvement upon it. I am persuaded, if Herodotus had heard the Latin of those days spoken, he would likewise have pronounced it a barbarous language, though it certainly be a dialect of the Greek, but a very antient one. But what evidently shews that Herodotus is mistaken in this hypothesis of his concerning the difference of the two languages, is what he tells us himself, that one half of the Greek nation, viz. the Dorians, were a Pelasgic nation. Now, though the Athenians may have changed their language after the Pelasgi left them, it is impossible to suppose that the Pelasgi would also change theirs and yet it is a thing that cannot be doubted,

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mory preserved *; and we cannot doubt that they carried their arts with them into Italy, as they did into Greece, and among others their language: And as we cannot suppose the savages that inhabited Latium in those days to have been less barbarous or ignorant than the savages of Greece, I think it can be as little doubted that they likewise learned

That the *Doric* is the same language with the *Ionic* or *Attic*, only a different dialect. And if any further proof were necessary, Herodotus himself has also furnished it; for he tells us, that the Pelasgi not only taught the Greeks the names of their particular deities, but first gave them the general name of *Θεοί*, *lib. 2. c. 52.*; and he informs us for what reason they gave them that name. Now *Θεοί* is certainly as much a Greek word as any, tho' it be likely that the old Pelasgi word was *deus*, as it is in Latin; but the later Greeks thought that the change of the *δ*, that is, the middle letter betwixt the *τ* and the *θ*, into the aspirate, made the sound fuller and better. In short, it appears, that though Herodotus was in other respects much above the vulgar prejudices of his countrymen, he could not part with that favourite notion of theirs, That the *Ionians*, of which race he was himself, and whom he considers as the genuine Hellenes or Greeks, were *aborigines* in Greece, and that their language, as well as themselves, was of the growth of the country.

* See *Dionys. Perieges. vers. 347. et ibi Eustath.* where we learn that the Greeks, who came to Italy with Evander, were Pelasgi.

every thing from the Pelasgi. It therefore appears to me to be as evident as any thing of so remote antiquity can be, that the Latin language is a dialect of the antient Pelasgic, and consequently of the antient Greek, which, as I have shewn, was the same with the Pelasgic. It is therefore in this most antient dialect of Greek that we are chiefly to seek for the affinity betwixt the Greek and Hebrew. And this I find is the opinion of a man very learned in language, Thomassin in his preface to his Glossary; for, whose opinion in this matter I have the greater regard, that he confesses he was once of another opinion, and believed that there was a greater conformity betwixt the Greek and Hebrew, than betwixt the Latin and Hebrew; but had changed that opinion upon a more diligent and accurate study of the three languages.

As I do not understand the Hebrew, I cannot pretend to judge for myself of the affinity betwixt the two languages. But, besides the multitude of words agreeing both in sound and sense, which are common to the two languages, and of which there is a large catalogue to be seen in a work publish-

ed not long ago, entitled, *Graeca et Latina lingua Hebraizantes* *; in all which, I cannot suppose, that so many learned men are mistaken; there are three things which I observe; 1st, That the names of the gods in Latin, such as Minerva, Neptune, Venus, Ceres, and which undoubtedly were their names in the antient Pelasgic, (the antient Greeks having, as was before said, got the names of the Gods from the Pelasgi), though disused by the later Greeks, are allowed by all the learned in those matters to be of Phoenician or Hebrew origin †. And the general name which both the Greeks and Latins gave to the gods, viz. θεός, or *Deus*, is of Hebrew extraction: For, as Herodotus informs us, *lib. 2. cap. 52.* it is derived from the Greek word θεῖν, of which they afterwards made τιθεῖν, denoting, that the gods arranged and put every thing in order. Now, θεῖν, in this sense, is plainly a Hebrew ‡ root,

* It is published at *Venice* in the year 1764; the author's name *Ogerius*.

† *Vid. Bochart. Geograph. Sacr.—Selden. de diis Syriis.—Vossius de Idololatr.—Huetii Demon. Evangelic.*

‡ The common derivation of the word θεός, and it is given, if I am not mistaken, even by Plato in the *Cratylus*, is from θεῖν, *curro*, importing, that the first gods among the Greeks were the celestial bodies, from whose

as I am informed, with a Greek termination, signifying, *disposuit, designavit, determina-*

tion the general name of *gods* was derived. But I am persuaded Herodotus's etymology is the true one. For there is no evidence that the religion which the Pelasgi taught the Greeks was of that kind: But, on the contrary, if we can believe Herodotus, it was the religion of Egypt that the Pelasgi imported into Greece, which was very different, at least at that time, from the religion of the ancient Germans and Persians, who worshipped only the celestial bodies and the elements. For Jupiter, whose worship the Pelasgi introduced into Greece, from whence he is called by Homer, *Zeus Πελασγικός*, was certainly neither sun nor moon, nor any of the stars or elements, but a human personage, whose birth the Greeks, with their usual vanity, ascribed to their own country, and particularly to Crete, from whence, it is likely, that the Pelasgi brought the worship of him to Greece; though it cannot be doubted, but that he was originally of Egypt, the parent-country of the religion of the Greeks. And what I have said of the human extraction of Jupiter, applies equally to all the gods of Greece: For, as Herodotus tells us, they were all *ανθρωποφυεις*; Herodot. Lib. 1. cap. 131. where we may observe, in passing, that Herodotus appears to forget here his usual caution in speaking of religious things, concerning which his common saying is, *ταυτα μοι ενσθημα κεισθω*. For that the objects of the popular worship in Greece were of human extraction, was one of the chief points revealed to the initiated in the mysteries. This Cicero has very plainly told us: *Quid? Totum prope cœlum, ne plures persequar, nonne humano genere completum est? Si vero scrutari vetera, et ex his ea, quæ scriptores Græciz prodiderunt, eruere coner, ipsi illi majorum gentium dii qui habent*

vit, &c. which perfectly agrees with Herodotus's etymology *.

2dly, The names of the several countries and islands of Greece are undoubtedly of Phœnician or Hebrew extraction; and the name of the most antient race among them, according to Herodotus, I mean the name *Ἰαυῆς*, or *Javans*, by which name we are told the barbarians did antiently call all the Greeks, and by which the Orientals at this day call them, is undoubtedly a Hebrew word: For *Javan* is the name of the son of Japhet, who was one of the sons of Noah †.

tur, hinc a nobis profecti in cœlum reperientur. Quæzæ, quorum demonstrantur sepulchra in Græcia, remaniscere, quoniam es initiatus, quæ tradantur mysteriis; tum denique, quam hoc late pateat, intelliges. *Tuscul. Disp. Lib. 1. cap. 13.* See also the same author, *de Nat. Deor. Lib. 1. cap. 42*; and other passages quoted from other authors by Dr Warburton, in his very learned and ingenious work of the *Divine Legat. lib. 2. §. 4. pag. 160.*

* Herodotus's words are, *Θεὸς προσηγομασάν Φῆνας ἀπὸ τῶν τοιούτων, ὅτι κοσμοῦ θεῖσις τὰ πάντα προσηγομασάν και πῶρος νομῆς ἔχον*; that is, they disposed, assigned, and distributed every thing. As to the meaning of the Hebrew word, I refer the reader to a very learned and ingenious work published at Cambridge by *Samuel Squire*, afterwards bishop of St David's, in the year 1741, entitled, *An Inquiry into the Origin of the Greek language*, p. 148.

† See the above-mentioned Inquiry into the Origin of the Greek Language, p. 144. & 151.

Lastly, The similarity of termination betwixt the Hebrew and the Latin, or old Pehlagic, is to me a convincing proof of the affinity of the languages. For understanding of which, 'it is to be considered, that there are three marks of affinity betwixt languages. The *first* is, The similarity of the sound of words signifying the same thing in both languages; *2dly*, The similarity of termination in particular; and, *lastly*, Similarity of flexion, in forming cases, genders, numbers, and tenses. If the words have only the first kind of resemblance, the connection betwixt the two languages is remote; and all we can say in such a case is, that either the one language is derived from the other, but has undergone much alteration since it came off from the stock; or that they are both derived from the same parent-language, but, like streams from the same fountain, have divided; and, wandering far from the source, have assumed very different appearances. But if, besides this first mark, the two languages have likewise the second, the connection becomes much greater: For the termination of words is a characteristic mark, either of likeness or of difference betwixt

languages *. Thus the English and Italian, having such different terminations, the one ending its words mostly in consonants, the other in vowels, we readily conclude them to be languages of different lineage and extraction; whereas the Dutch, German, Swedish, and other dialects of the Teutonic, terminating their words mostly in consonants, we conclude them to have been originally from the same stock with the English †. But if the third mark of resemblance likewise concur, and if the flexion be the same, or nearly the same, then we pronounce, without hesitation, that they are either the same language, or dialects of the same language, very near akin to one another. But if the resemblance of the flexion is not so obvious,

* Herodotus, *Lib. 1. cap. 139.* very properly observes it as a peculiar mark of difference betwixt the Persian and Greek languages, that all the Persian words terminated in *σ*; and indeed there is hardly any thing that distinguishes languages more than the difference of termination.

† One of the most distinguishing marks of difference betwixt the dialects of the Teutonic, and the Greek or Latin, is, that those dialects terminate a great many of their words with asperated consonants; whereas the Greek and Latin terminate none in that way.

it is only the learned in the grammatical art, who have observed attentively the changes which languages undergo in passing from one people to another, that will discover the two languages to have been originally the same. In this way the Latin is discovered to be a dialect of the Greek. Whereas the later dialects of that language, such as the Ionic, Attic, Doric, and Eolic, are known, at first sight, to be dialects of the same language, as readily as the dialects spoken in the different provinces of the several kingdoms of Europe are known to belong all to the same language.

To apply these general observations to the Hebrew and Latin: They have the first mark of resemblance in a great many words; and it is likely it would have been found in many more, if there were as many books extant in Hebrew as there are in Latin. But in Hebrew there is only one book, which cannot be supposed to contain all the words of the language, if it were a much larger book than it is. And indeed it is evident, from the way that the roots of this language are composed, that it contains but a small

part even of them *. As to the flexion, it is, to be sure, very different in the two languages. But we are to consider, that flexion is the chief part of the grammatical art; and therefore, when we see two languages differing in flexion, we are not from thence to conclude, that they are languages originally different, but that, after they were divided from one another, and came to be spoken by different nations, those nations followed different rules of art, in cultivating and improving their several languages; so that, from the same materials, languages were formed in appearance very different, though originally the same. For flexion, or *analogy*, as it is commonly called, gives what may be called the *form* to languages; and makes them appear so different, that it is only the critical eye that can see the resemblance. But by the means of the termination, the relation betwixt the Hebrew and Latin appears evident: For, it is admitted by all the learned in the Hebrew, that, if

* The radical words to be found in the Bible do not exceed fifteen hundred; whereas the combination of the several consonants in triads will produce above ten thousand. See the book above quoted, *De Græcæ et Latinæ linguæ cum Hebraica affinitate*, p. 53.

not all, by far the greatest part of the words in that language terminate in consonants. Now a great part of the Latin words end in consonants: Nor is there any of the simple consonants (I mean such as are not aspirated) that does not terminate some one Latin word. For as to *f*, it is an aspirated consonant, approaching in sound to the Greek ϕ ; and as to the *g*, though no word terminate in it, it is very near of kin to the *c*, which terminates several words, and indeed may be accounted the same sound; and accordingly, in the antient Latin monuments *c* is commonly used for *g*, as in the *Duilian* inscription, *leciones* is written for *legiones*, and *exfociont* for *effugiunt*; and indeed, from its order in the alphabet, we may know, that it once answered to the Greek γ . As to *p*, though it is not used in the end of any word as the Latin is written at present, yet we know, that, according to the old orthography, it was frequently used for *b*, to which it is so near akin, even in the end of words. Thus they said *ap* for the preposition *ab*, which is just the Greek α without the final vowel. And as to the *q*, it is used for the Greek κ , with some varia-

tion, it is likely, in the sound, which it is not easy to explain. And in the old Latin, there are still more words to be found terminating in consonants. In the present Latin there are but few words which end in *d*; but there were more in the old Latin; for in the Duilian monument, instead of *popula* we find *populod*; instead of *sententia*, *sententiad*. On the other hand, in the Greek language, as we have it at present, there is no noun terminating in a mute consonant, as Aristotle has observed *; nor indeed any word, so far as I can recollect, unless the preposition *in*. But even this preposition, before a vowel, is written *in*; and as it was so pronounced by the Latins, I should incline to think, that *in* was likewise the Greek word, and the *r* was only elided, for the sake of better sound, when a consonant followed it. Nor does any of the liquids terminate words in Greek, except *r* and *l* as Aristotle likewise has observed; and but very few end in *t*, as I had occasion to observe before.

But I am persuaded it was not always so among the Greeks; and that while their

* *Poëtic. c. 21.*

dialect was nearer to the old Pelasgic, before they began to soften the sound of it, and to vary the terminations of it by inflection, they had as many words ending in mute consonants as the Latins. Thus, as I observed before, I cannot doubt, but in place of $\lambda\iota\gamma\omicron\sigma\iota$, they said of old $\lambda\iota\gamma\sigma\tau$, as the Latins say; in place of $\mu\epsilon\lambda\iota$, $\mu\epsilon\lambda$; and instead of $\alpha\pi\omicron$, they used the Latin preposition $\alpha\pi$ or $\alpha\epsilon$. And yet, notwithstanding the difference of termination betwixt the Greek and Hebrew, some learned men * are of opinion, that the Greek resembles the Hebrew more than the Latin. But, besides the resemblance of termination, which, as I have observed, is a strong mark of affinity betwixt two languages, it is natural to think, that the old Pelasgic would undergo less change in Italy, and be less cultivated and improved, than it was in Greece, and consequently have the greater resemblance to the Hebrew.

I have insisted the more upon this likeness of termination betwixt the Hebrew and Latin, that I think it has not been suf-

* See Ogerius *De linguae Graecae et Latinae cum Hebraeica affinitate*.

ficiently attended to by learned men; but it appears to me so strong a mark of resemblance, that it is very near as clear a proof of the Latin being derived from the Hebrew, as of our English being derived from the Gothic: For the flexion in these two last-mentioned languages is very different; and it is as much by the likeness of the termination, as by the similarity of the sound of the words in other respects, that we know them to be so near akin.

If any more arguments were wanting to prove the affinity betwixt the Latin or old Pelasgic, and the Hebrew, this alone, I think, might suffice, that as the Pelasgi came from Asia, they must have spoken some Asiatic language. Now we know, that the dialects that were spoken in that part of Asia, such as the Syriac, Phoenician, and Chaldaic, are all connected with the Hebrew.

If the reader is satisfied of the connection betwixt the Hebrew and the Latin, it will follow of consequence, that the Hetruscan language is also connected with the Hebrew. For it is evident, from the monuments of that once great and powerful nation still extant, particularly the *Tabulae E-*

gubinae *, that their language was the same, or a dialect of the same language with the Pelasgic or Latin; and the connection betwixt it and the Hebrew may be accounted for in the same way as the connection betwixt the Hebrew and the Pelasgic, namely from the origin of the people, who came from Asia, as well as the Pelasgi, being originally Lydians, as Herodotus has informed us.

And thus it appears, that not only the northern parts of Asia, but the southern parts adjoining to the Mediterranean sea, and Greece, and Italy, and we may say all Europe, once spoke the same language, or dialects of the same language. And the fact appears to have been, that in very antient times a language of art has been formed in one or other of those countries, or in some country adjoining to them, and by degrees has been propagated over Europe and Asia, even to nations the most barbarous. And it is in this way, that we are to account for such barbarians as the Laplanders and

* See with respect to these tables the *Museum Hetruscum* of *Gorius*, and the Collection of Hetruscan Antiquities, lately published in so splendid a form by *Mr Hamilton*, vol. 1. p. 48.

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Greenlanders speaking a language of art. Nor is this propagation of language to be much wondered at, when we consider that the same language, which is spoken in New-Zealand, is now discovered to be spoken in the Island of Otaheite in the South Sea, separated from it by two thousand miles of ocean.

But what shall we say of the parent-country of all arts and sciences, at least to this western part of the world, I mean Egypt? What was the language spoken there? Was it peculiar to them? Or was it borrowed from any of their neighbours? Or did their neighbours borrow from them? This is a matter of curious inquiry, and well deserves a chapter by itself.

C H A P. XIII.

Of the Antiquity of the Egyptians.—That the Pelasgi got their Language from Egypt, and brought it into Greece.—That the Athenians were a Colony of the Egyptians.—That Egypt was a Country very proper for propagating or for inventing a Language. No Universal Language now existing.

IT cannot, I think, be doubted, that the Egyptian nation was of very great antiquity, compared at least with any nation in Europe: For nothing is more certain in antient history, than that Egypt was a great kingdom, flourishing in arts and sciences, religion, and policy, while Europe was inhabited, if at all inhabited, only by savages. The only nation in Europe in antient times that had any pretensions to antiquity was the Greek: But the wiser even among them considered themselves as children, and of yesterday, compared with the

Egyptians. Plato says, that they had no memory of any thing beyond a thousand, or at most two thousand years before his time; whereas, if we can believe that most diligent and accurate historian Herodotus, the Egyptians had not only traditions, but records, viz. their sacred books, that went back above eleven thousand years before that time. And besides those books, they had a chronological record, such as I believe was never found in any other nation, I mean the statues of the high-priests of Jupiter in Thebes, of which Herodotus saw himself to the number of 345, who succeeded one another from father to son, (for the priesthood in Egypt was hereditary), from the reign of their first king down to Herodotus *. And Plato speaks of pieces of mu-

* *Lib. 2. c. 143. et seqq.* They were colossal statues of wood; every high-priest having set up one for himself during his life. They had been shewn before to Hecataeus the historian, when he was bragging of the antiquity of his family, and reckoning up fifteen ancestors, and the sixteenth a god: For the Greeks were vain of the antiquity of their families, as well as of their nation. The computation here of the 11,000 years is by generations, three of which Herodotus reckons make 100 years: But from what he says a little below it appears, that they had the years of the reigns of their several kings exactly set

fic among the Egyptians, ascribed to Isis, which he says were above ten thousand years old *. What number of years the learned and religious reader will think proper to abate of this account, I cannot take upon me to determine; but thus much I may say, that, unless we believe Egypt to be a nation of very high antiquity, we must reject the authority of all antient history, sacred as well as profane.

Further, we are sure, from the best authority, that Egypt was a country of learning in very early times, as early as the days of Moses, who, we are told, was instructed *in all the wisdom of the Egyptians* †.

down in their sacred books; for he says, they reckoned from Bacchus, who was one of the youngest of their gods, fifteen thousand years, down to Amasis, the last of their kings before the Persian conquest; and this they said they were sure of, *αιει τι λογιζομενοι, και αιει απογραφομενοι τα ετηα*; the meaning of which words, I think, clearly is, that they always computed and set down in their books the years of every king's reign at the time of his death. There are other curious things to be gathered from this passage, which is one of the most remarkable in the book; but they are not to our present purpose.

* *Lib. 2. De Legibus, p. 657.*

† *Acts of the Apostles, chap. 7. v. 22.* The word in the original is *σοφια*; which I do not understand to mean *prudence* in the common affairs of life, for which the

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Lastly, It is a fact, which I think likewise cannot be denied, that all religion and policy, arts and sciences, came originally from Egypt into the different parts of Eu-

proper Greek word is *φρονησις*; but knowledge in the most hidden secrets of nature, and the highest philosophy.

I should not have this opinion of the learning of the Egyptians, if I believed the common story told, upon no better authority, I believe, than that of Diogenes Laertius, of Pythagoras having discovered the 47th proposition of the first book of Euclid, after he had studied geometry in Egypt two and twenty years, and learned, as is supposed, all that the Egyptian priests could teach him of that Science. If this was so, it is evident that his masters must have been mere novices, in a science which Plato considered as a necessary introduction to philosophy. So that their pretensions to be such profound philosophers must appear altogether ridiculous. But, how shall we reconcile this, with what Diodorus Siculus tells us, of their having made such progress in astronomy, as to calculate eclipses, and even the return of comets? And all authors agree, that they perfectly understood the solar year, the knowledge of which the Romans got from them, as late as the days of Julius Caesar. Now, it is very well known, that neither in abstract geometry, nor in what is commonly called *mixt mathematics*, such as astronomy, can any progress be made worth mentioning, without the knowledge of this fundamental proposition. Further, we have an authority in favour of their skill in geometry, which it is impossible to reject, or explain away: It is that of Plato the philosopher, who resided among them several years, and appli-

rope: And they appear to me to have been conveyed and propagated in two several ways, and by two several nations; by the Phoenicians by sea, and the Pelasgi by land. Of these last, and of their intercourse

ed himself very much to the study of their geometry and astronomy. He tells us, *lib. 7. de leg. pag. 900. edit. Ficini*, that the Egyptians knew a thing, relating to the principles of geometry, which the Greeks, even in his time, did not generally know, and which, from what he says, I should imagine he only, and perhaps likewise Eudoxus, who was with him in Egypt studying geometry, knew, tho' the ignorance of it was, he says, shameful, and not human, but brutish, or *swinish*, as he expresses it, *παθος ἕκ ανθρώπινον, ἀλλ' ὑψηλὸν τινοῦ μάλλον θηριμύτων*. It was an ignorance, says he, that made me blush, not only for myself, but for all my countrymen. And what is this so shameful ignorance? I doubt it is that of every man, who has not very accurately studied geometry, and understands, what may be called the metaphysical principles of it. And I very much suspect, that we should not at this day have known it, if Plato had not brought it with him from Egypt, and Euclid published it in his elements. The question is concerning the nature of a thing, which runs through geometry and arithmetic, and all sciences of quantity, I mean *ratio*, whether it can exist betwixt magnitudes of different kinds, such as length and breadth, compared with one another, or either of them, with depth. The Greeks in Plato's time believed that it might. But the Egyptians taught them better. And accordingly, Euclid has defined *ratio*, to be "the relation of two magnitudes of the *same kind*,

with Egypt, I have said something already, and shall presently say more. And as to the Phoenicians, they once dwelt upon the

“to one another with respect to quantity,” *λοσος εστι δυο μετρεων ομοειων η κατὰ πηλικότητα προς αλληλα ποια Χριστις ; Def. 3. lib. 5.* Plato, in the sequel of this passage, plainly enough insinuates, that the doctrine of incommensurables was known to the Egyptians, but not known to many of the Greeks in his time.

That all the Greeks were not so candid and ingenuous as Plato, but that many of them assumed the merit of inventing what they brought with them from Egypt, is a fact that cannot be controverted. Herodotus, when he tells us, that the doctrine of the transmigration of souls was an Egyptian doctrine, says, at the same time, that certain Greeks pretended it was their own, whose names, says he, tho' I know, I will not mention; *lib. 2. cap. 123.* I am unwilling to believe, that so great a philosopher as Pythagoras was capable of such a deceit. But it is well known, that his followers ascribed to him the invention of every thing that he taught them, tho' I doubt much, for my own part, whether he really invented any thing of any value. We are told by Simplicius, in his commentary on the first book of Aristotle's physics, that the Pythagoreans knew a method of squaring the circle, that is, as I understand it, of coming as near to it as is necessary for any practical use. Now, I think it is highly probable, that this was not invented either by Pythagoras or any of his followers, but that he learned it from his masters, the Egyptian priests. And if they knew this, how ridiculous is it to suppose, that they did not know that the square of the hypotenuse in a right-angled triangle, is equal to the squares of the sides containing the right angle !

Red sea, as Herodotus informs us, nearer to the Egyptians; and, if they were not a colony of theirs, had certainly a close intercourse with them, in consequence of which they learned to circumcise themselves, as the same author tells us *. And it appears they were so much connected with them as to be admitted to a participation of their religion and worship: For we are told likewise by Herodotus †, that they carried upon the prows of their galleys an image of the god Vulcan, such as that which the Egyptians worshipped in the *adyta* of their temples.

These things being premised, we are now to inquire, Whether the art of language, as well as other arts, may not have come to the Western world from Egypt? And whether that language, which I have shewn was universal over Europe, and a great part of Asia, was not originally the language of Egypt?

If such was the case, the nations who spoke this language must have had, some way or other, a communication with Egypt; and all or most of them had that communication, if we can believe the history of the

* *Lib. 2. c. 104.*

† *Lib. 3. c. 37.*

Egyptians, of which Herodotus has given us so exact an account. For, not to mention the conquests of their god Osiris, their king Sefostris traversed, with a great army, almost all the world that was then known, and left monuments of himself in several countries, some of which were still remaining in the days of Herodotus. Among other monuments, it is likely, he left his language in several places, as he certainly did in Colchis, where he left a colony, who, at the time Herodotus wrote, lived according to the manners of the Egyptians *, and spoke their language. And, if it be further true, that they planted a colony, not only there, but in many other parts of the world, as Diodorus informs us they pretended, in that way we can account for all the languages I have mentioned being dialects of the Egyptian: For that the Egyptians learned their language from any of those other nations, there is not, I think, the least proof or probability.

But, if we should disbelieve every thing that the Egyptians have said of themselves, it is impossible that we can reject what the

* *Lib. 2. c. 104. et seqq.*

Greeks have told us of their intercourse with that nation, unless we have a mind to reject at the same time all antient history. Now, according to the Greek accounts, they had a communication with Egypt, not only by the means of Greek travellers into that country, in which way I do not think their language was brought into Greece; but chiefly by the means of strangers from that country, who came and settled in Greece, and became governing persons, and founders of states there. Of this kind I hold Deucalion to have been, and Inachus the first king in Greece, as Danaus and Cecrops certainly were; and likewise Cadmus, who, though he came into Greece immediately from Phoenicia, was originally from Egypt. But, besides those patriarchs of the Greeks, as I may call them, it appears to me, that the Pelasgi, the first civilizers of Greece, and whose language I think I have proved was the origin of the Greek language, were either some colony of the Egyptians, or, by intercourse with them, had learned, not only their religion and arts, but their language.

It is certain that the Pelasgi were the first civilizers of Greece; and I think I have

shewn, that, among other arts which they brought into Greece, they introduced their language. Further, it is evident, that they came from Asia; and as to their intercourse with Egypt, we are told by Herodotus, that they brought into Greece from Egypt the names of the gods. And if Herodotus had not told us so, from what other country than Egypt could they have brought the gods of Egypt? And it further appears, that they not only knew the popular religion of the country, but were initiated into their mysteries: For it was from Egypt that they brought the Samothracian mysteries, the most antient and most respectable of all the Greek mysteries. These mysteries were in honour of the Cabiri *, most venerable deities of Egypt, into whose temple none was permitted to enter but the priest †. The conclusion that I draw from these facts is, that the Pelasgi were either one of the many colonies that came out of Egypt, or were so intimately connected with the Egyptians as to have learned their language, as well as their religion and arts,

* *Herodot. lib. 2. c. 51.*

† *Ibid. lib. 3. c. 37.*

This conclusion, I think, must appear extremely probable, especially as it is not contradicted by any antient author; for none of them has said any thing concerning the origin of the Pelasgi. But the evidence becomes much stronger, and indeed amounts to a proof as clear as can be expected in matters of such remote antiquity, if we attend to what Herodotus has said, That the Dorians were Pelasgi; and that the leaders of the Dorians were from Egypt *. Now what language can we suppose those Egyptians leaders to have spoken other than the Egyptian? And is it to be believed, that the Dorians spoke a different language from their leaders? For, suppose they had spoken a different language when those leaders came among them, it is natural to think, that the same thing would have happened to the Dorians, as Herodotus tells us happened to the Athenians when the Pelasgi governed Athens, namely, that they would adopt the language of their governors. And as to the later Egyptian strangers, such as Danaus or Cadmus, that came into Greece after the Pelasgi

* *Herodot. lib. 6. cap. 53.*

were established there, they must have understood, and been able to speak, the language of the country; otherwise, I think, it is impossible that they could have got such an ascendancy over the people as to become kings and rulers among them, not by force, which it is certain they did not use, but by persuasion*.

Thus, I think, I have proved, that one race of the Greeks, viz. the Dorians, spoke a dialect of the Egyptian language. But what shall we say of the other race, the Ionians, whom only Herodotus will allow to be the true Hellens or Greeks? I say, in the *first* place, that the Doric, and Attic, or Ionic, are clearly dialects of the same language; so that, if we admit the Doric to be Egyptian, it is impossible we can deny the Attic to be so likewise. And as to the notion of the Pelasgi or Dorians having changed their language after they came into Greece, and adopted the language of the people whom they governed, I have endeavoured to shew, that it is without foundation, and contrary to all probability. But,

* See this argument very well handled by Squire, in his Inquiry, which I quoted before, into the origin of the Greek language, *sect.* 3. *p.* 173.

2dly, Suppose we should admit this to have happened, however improbable, and that the Attic or Ionic is the true original Greek language which the Pelasgi learned after they came into Greece; I say, that the language of Athens, the principal city of the Ionians, was originally Egyptian; because the Athenians were an Egyptian colony. This is a curious fact of antient history, not commonly known; and as it belongs to our subject, I will state the evidence of it at some length: In doing which I am assisted by a French dissertation on the subject, lately published by the society of antiquaries in London.

And, in the *first* place, if we can believe the Egyptians themselves, there is no doubt of the matter. For, as Diodorus Siculus informs us *, among many other colonies which they pretended to have settled in different parts of the world, they said the city of Athens was one; and they were so particular as to name the *nome* or district in Egypt from whence this colony came, viz. the district of *Sais*. And accordingly Plato tells us †, that the Saïtes considered the A-

* *Lib. 1. cap. 28. edit. Weffeling.*

† *Tom. 3. p. 21. edit. Serrani.*

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thenians as related to them; and on that account treated Solon with great kindness when he came among them, and instructed him in antient history; telling him, among other things, the story of the Atlantic island, which Plato has related in the *Timæus*. The Egyptians further, according to Diodorus *, said, that Erechtheus, who is commonly reckoned the sixth King of Athens, was an Egyptian; and did, on account of that relation of the Athenians to the Egyptians, import into Attica, from Egypt, a quantity of corn in a time of great drought, which had produced a famine in Attica; and for this service was made king of the country. This account of Erechtheus must be allowed to be at least more credible, than the story which the Greeks told of him, that he sprung out of the earth †; and was so far confirmed by the Athenians themselves, as the same Diodorus tells us, that they admitted there was a great scarcity of corn in Attica in the reign of Erechtheus, and that then Ceres came among them, and gave them corn; the meaning of which fable, the Egyptians said, was,

* *Ubi supra.*

† *Herodot. lib. 8. cap. 55. Ἔστιν ἐν τῇ μεσοπολεὶ τῶν Ἑλληνικῶν τοῦ γαίης ἀριστοῦ σιτικῆς.*

that Erechtheus, along with the corn, brought with him from Egypt the mysteries of that goddess, and established them in Eleusis in Attica, from whence they were called the *Eleusinian mysteries*. Now, if it be admitted, that there was at that time an importation of corn into Attica, I think it could hardly be from any other country than Egypt, which, by its nature, could not suffer famine from the want of rain, the cause, as it is said, of the famine at that time in Attica, and, as Diodorus tells us, in almost every part of the known world, except Egypt. It must therefore, I think, be allowed, that the Egyptian story is at least a probable one, and agreeable to what the Athenians themselves relate.

Further, that the Athenians were a colony of the Saïtes, was the opinion of Theopompus, a very learned Greek historian, whose diligence, and the expence as well as the pains he was at to inform himself of facts, and particularly concerning the origin of nations and cities, Dionysius the Halicarnassian very much commends *. The work of Theopompus is lost; but the fact is re-

* *Dionys. Halicarn. Epistol. ad Pomp. de Historicis, p. 131.*

lated by Eusebius, in his *Praeparatio Evangelica*, lib. 10. cap. 10. p. 491.; and also by Proclus the philosopher, in his commentary upon the *Timaeus* of Plato, p. 30.; who informs us, at the same time, that Callisthenes and Phanodemus averred the contrary of this, viz. That the Saïtes were a colony of the Athenians; and he mentions Atticus, a Platonic philosopher of later times, who says, that Theopompus, through envy, inverted the story. And he adds, that in Atticus's time there came certain persons from Saïs to Athens to renew their relation and connection with the Athenians †.

From all these accounts, one thing appears to be evident, that there was a connection betwixt the Saïtes and Athenians, and that either the Saïtes were a colony of the Athenians, or the Athenians of the Saïtes. Now, I think the learned reader

† As this work of Proclus is not in the hands of every body, I have excerpted the passage, which runs thus: —
 Τους δε Αθηναιους Καλλισθηνης μιν και Φανοδημος παλιν των
 Σαιτων ιστορει γινεσθαι. Θεοπομπος δε ανακαλιν εποικου
 [ισθ. αποικους] αυτων εναι φησιν. Αττικος ο Πλατωνικος,
 δια Βασκαλιαν, φησι, μελαποισσαι την ιστοριαν των Θεοπομ-
 που εν αυτου γαρ αφικεσθαι τινας εκ της Σαιως απαιουμι-
 νους την προς Αθηναιους συγγειαν.

cannot hesitate a moment in chusing which of these alternatives he should believe: For, though it be certain, that the Egyptians sent out many colonies, and particularly that many Egyptians came into Greece, there is not the least proof or probability, that any colony ever came from Greece into Egypt, nor indeed from any other country in the world, so far as we know, except from Ethiopia, which I hold to have been the parent-country of the Egyptians, who, coming from thence, first inhabited the *Thebais*, or Upper Egypt, and then spread themselves over the *Delta*, after that country was formed by the river.

Further still, not only does it thus appear in general, that the Athenians were a colony of the Saïtes, but I think we know particularly, at what time, and by whom this colony was settled in Athens. For it appears to me, that the colony was led by Cecrops, the first king of Athens, some time after the Ogygian deluge, which had desolated Attica. Whether this deluge was the same with that of which Solon was informed by the old Egyptian priest of Saïs, and which, at the same time that it destroyed Attica, overwhelmed the Atlantic is-

land *, or whether it was another, posterior to this, I pretend not to determine.

That this first Athenian king was an Egyptian, is a fact that I think incontestable †; though the Athenian mythologists made *him* likewise the offspring of the earth ‡. And it appears also certain, that he came from Saïs in Egypt §. And that he came after the Ogygian deluge, and found Attica inhabited by men, who lived in a state of the greatest barbarity, copulating promiscuously like beasts, appears also to be cer-

* See Plato in *Timæo*, tom. 3. p. 21. *Serrani*.

† See *Johannes Tzetzes*, *Iliad*. 5. cap. 18.—*Suidas in voce* CECROPS.—*Scholiast. in Plutum Aristophanis*.—*Isaacus Tzetzes ad Lycophron*.—And *Cedrenus Compend. Historiarum*.

‡ *Appolodor. Bibliothec. lib. 3*. This was a common fable among the Greeks, invented either to conceal their ignorance, or to disguise the true origin of their nation, and to make the world believe that they were the produce of the country which they inhabited. This, we know, was in particular the vanity of the Athenians, who considered all the other inhabitants of Greece as foreigners in the country where they lived, and themselves only as *indigenæ*, and truly natives. Upon this topic their orators never failed to expatiate in the funeral orations which they pronounced upon those of the Athenians who fell in war. See what Plato has said upon this subject in his *Λογος εν Πλάτωνα*, in the *Menæxenus*.

§ *Joh. Tzetz. loco supra citato*.

tain †: For it is agreed, that he first instituted marriage among the Athenians; and for this reason he is distinguished by the epithet *διδυμις*, as Tzetzes has very well explained the word in his various history ‡. The case appears to have been, that the country of Attica having been quite desolated by the Ogygian deluge at the time that Cecrops arrived with his colony from Saïs, which it is computed was a hundred and eighty-nine years after that deluge, according to Africanus's chronology, as quoted by Eusebius, was then inhabited by savages, who lived without government, arts, or civility; and who therefore must be supposed to have learned every art of life from Cecrops and his followers; and, among other arts, that of language.

Diodorus, though his vanity as a Greek made him unwilling to believe that the principal city of Greece was an Egyptian

† *Euseb. Chron. et praep. Evangel.*

‡ *Johannes Tetz. Iliad. 5. cap. 18.*; where he tells us, that, before Cecrops, the mothers of children were only known; so that the children were *μυροφους*: Whereas, after the institution of marriage, both parents being known, they became *διδυμις*. And in this account of the name, Athenaeus, *lib. 13.* and Justin the historian, *lib. 2. cap. 6.* agree with Tzetzes.

colony; yet, as a faithful historian, he has fairly given us the arguments which the Egyptians used to convince the Greeks of the truth of the fact. They said, that there was a great conformity betwixt the religious and civil institutions of the people of Saïs, and those of the Athenians. And, among other particulars, he mentions the division of the people of both cities into three Classes of the same kind*.

But, among other arguments, they used one which appears to me most convincing in matters of such remote antiquity, because it is drawn from the most antient of all the monuments of men, I mean the names of places. For the Egyptians said, that the colony came from a town in the district of Saïs, called *Asty* †; and this name

* *Diodor. lib. 1. cap. 28. edit. Wesseling.*

† The words of Diodorus are, *Και τους Αθηναίους Φασιν (Αισυπλίοι) αποικους εινα Σαίτων των εξ Αισυπλιν και περιηλθαι της οικιστης ταυτης Φερειν αποδειξεις παρα μοις γαρ των Ελληνων την πολιν ΑΣΤΥ καλεισθαι μετσηνησιμων της προσηγοριας απο του παρ' αυτοις ασπιος, lib. 1. cap. 28.* Of these last words, it may be thought the meaning is, that *ασπυ* was another name for the city of Saïs. But, though that interpretation would equally serve my purpose, I hold the proper meaning of the words to be, that the name of *αστυ* given to Athens was transferred from

they gave to the city that they founded in Greece. In support of this argument, they said, what no doubt was true, that the Athenians were the only people in Greece who gave that name to their city*: For the word *ἄστυ* is not the general name for a city in Greek, except among the poets, but a name peculiar to the city of Athens, and no doubt a foreign word, which the Athenians preserved without altering it, or giving it the usual Greek termination. For Aristotle has told us †, that there are only five nouns in Greek which terminate in this vowel *υ*, of which *ἄστυ* is one; and I am persuaded they are all foreign words, that had not been naturalized by getting a Greek termination.

the ἄστυ among them, as it may be literally rendered: An expression which so clear a writer as Diodorus would not have used, if he had meant to say, either that *ἄστυ* was a general name for a city in the Egyptian language, or that this city of Saïs, besides that name, was likewise called *ἄστυ*. The meaning therefore of the passage clearly is, that as there was a district of the name of *Saïs*, as well as a city, (see Plato in *Timaco*), *ἄστυ* was the name of some other city or village in that district, from which this Athenian colony came.

* Not only the Athenians themselves called their city by that name, but also the Latin writers. See *Corn. Nepos, Themistocl. cap. 4. & Terent. Eunuch. &c.*

† *Aristot. Poëtic. cap. 21. in fine.*

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But, besides all these arguments, there is one that arises from the manners and institutions of the Egyptians, and the state of their country, which to many may appear more conclusive than any that I have hitherto mentioned. It is a fact that cannot be disputed, that Egypt, in antient times, I mean before the Persian conquest, was the most populous country then known in the world*. Nor indeed can any man, from what is to be seen in Europe, have any idea of the populousness of this country, such as it is described to us by antient authors. For, not to mention the number of cities, which Herodotus says amounted to twenty thousand, in the reign of Amasis lib. 2. c. 177.; the same author informs us †, that, in one of their many processions, that to the city of Bubastis, in honour of Diana, there would be sometimes seven hundred thousand men and women, besides children, as he was informed by the natives. And the account he gives of the race of the fighting men shews us, that the numbers of the whole people must have been prodigious.

* *Diodor. Sicul. lib. 1. cap. 31. edit. Wesseling.*

† *Lib. 2 cap. 60.*

gious for a tract of country which is not near so large as what now goes by the name of *Egypt*; for it comprehended no more than what was overflowed by the river; so that a great deal of the country now called *Egypt* was then known, either under the name of *Arabia* towards the east, (for ancient Arabia was upon both sides of the Arabian Gulph or *Red sea*, as it is now called), or of *Libya* towards the west, ancient Egypt being bounded on the east by the Arabian mountains, where were the quarries out of which the pyramids were built, and on the west by the Libyan mountains *; and, tho' the length of it was considerable, the breadth of it, betwixt these two ridges of mountains, was no more than 200 *stadia* or 25 English miles †. The fighting men, he says, all together, were four hundred and ten thousand in number, when Egypt was in its flourishing state. So that, according to the ordinary computation, of one fourth of the whole number of people being able to bear arms, the number of this class of men in Egypt must have amounted to one million six hundred and forty thousand. Now,

* *Herod. lib. 2. c. 4*

† *Ibid.*

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the race of fighting men was, as Herodotus tells us, but one of seven classes into which the people were divided; and, if their number was so great, what must the number have been of husbandmen, shepherds, sailors, and artificers of every kind, not to mention the priests, who were in Egypt a very numerous race *? What enabled Egypt to maintain such numbers was the nature of the country, where the land was not only more fruitful than the land of any other, but the river abounded exceedingly with fish, and also with herbs, which served for the sustenance of man. Their policy too and manners very much encouraged propagation: For every man in Egypt had as many wives as he chose, except the priests, who married only one. Nor was exposition of children allowed among them, as in Greece; but they were obliged to bring them all up, even such as they had by female slaves, and without distinction whether they were lawful children, or what we call *bastards*. And, lest we should think it impossible that they

* Herodot. lib. 2. cap. 165. seqq. Diodor. lib. 1. cap. 73.
‡ 74. p. 84.

could rear so many children, the same author informs us †, that it was done at no cost, the children for the greater part going about naked, and feeding upon reeds and other aquatic plants which grew in their river and marshes*.

† *Diodor. Sicul. lib. 1 c. 80, p. 91.*

* Many other reasons might be given, were this the proper place, why Egypt was so extremely populous. In the *first* place, it does not appear that the Egyptians bred and nourished many animals, either for the purpose of labour or of food: For they did not plow with horses and oxen as we do; nor indeed did they plow at all; but made use of swine only in the business of agriculture, sowing their seed upon the new earth brought down by the river, and treading it in by swine, which they drove among it, after the manner described by Herodotus, *lib. 2. cap. 14.* And they appear to have made very little use of horses in war, which are the animals of all those we use maintained at the greatest expence. And, with respect to the use of animals for diet, they ate but a very few. And it is evident that by far the greater part of so numerous a people must have eaten no flesh at all. Now, it is evident, that every country must maintain a less number of men in proportion as it maintains a greater number of other animals. And therefore it is impossible that a country, where the people feed much upon flesh, or where they maintain a great number of animals, and particularly of horses, for the purposes of agriculture or carriage, and of war, and likewise for the use of vanity and ease, can be populous. *Secondly,* It does not appear that, in Egypt, any considerable part of the produce of the ground was employed in making fermented liquors, to enervate the bodies and shorten the

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In such circumstances, it was of absolute necessity, that they should ease themselves of their superfluous numbers by sending out colonies; a fact of which I could have had no doubt, though it had not been vouched by any history or record. And I imagine, that the warlike expeditions of Osiris and Sesostris were undertaken, rather with a political view of easing themselves of their superfluous numbers, than of making conquests: For it does not appear that they retained, or attempted to retain, any of the countries that they over-ran, but only settled colonies in them. I therefore consider Egypt as a hive that cast off swarms from time to time, which spread themselves all round on every side, carrying with them their religion and their arts, and, among other arts, that of language. And it appears to me, that those swarms did not only settle in the West, but also in the East.

lives of the inhabitants. They did not cultivate the vine; and, tho' they made ale of barley, I think it is certain that it could not be of common use, but the drink only of the better sort. Now, a country where a great part of the produce of the earth is consumed in making vinous, or, what is worse, spiritous liquors, cannot, by the nature of things, be highly peopled.

For the Egyptians themselves said, that the Babylonians and Chaldeans were a colony from them *. And indeed I think it is highly probable, that the Chaldeans, who were the priests and philosophers of the Babylonians, brought with them their religion and sciences from Egypt. For, besides the resemblance which Diodorus has observed betwixt them and the Egyptian priests, there is, with respect to religion, a circumstance of surprising conformity mentioned by Herodotus, which I think could not have been accidental †; and as there is not the least reason to believe that the Egyptians borrowed any thing from any other country, unless it be Ethiopia, the country from whence, as I have said, they probably came, we must suppose, that the Chaldeans took it from them.

* *Diodor. Sicul. lib. 1. cap. 28. p. 32.*

† He says, that in the temple of Jupiter Belus at Babylon, whose priests the Chaldeans were, none was permitted to pass the night, except a woman, who was chosen for that purpose, and had no intercourse with man. The same, he says, was practised in the temple of Jupiter in the Egyptian Thebes; and in both temples, there was a couch for the god, upon which they said he reposed during the night: *ἡμῶν ἢ πῆμα λεγόντες*, says our author, *lib. 1. cap. 182.*

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Further, it is a fact which cannot be doubted, that, when the Greeks under Alexander the Great came into India, they there found many monuments, both of Bacchus or Dionysius, and Hercules; and especially of the first, who, the Indians said, came from the west with a great army, conquered the country, taught them agriculture and the use of wine, and other arts of civil and social life *. Now, there is no man who knows any thing of antient history, that can believe that this conqueror of India was Bacchus the son of Semele, or Hercules the son of Amphitryon. And I think there can be little doubt who they were, when we find the history of two countries so remote as Egypt and India agreeing in the same story: For the Egyptians related, that their Bacchus, whom they called *Osiris*, (with whom their Hercules was contemporary), over-ran all the world known at that time with a great army, civilizing men, and teaching them the arts of life where-ever he came; and particularly, that he was in India, where he built

* See *Strabo*, lib. 15. p. 1008. & 1038.—*Arrian*. *Indica*, cap. 5.—and *expedit. Alexandri*, lib. 5. c. 1.

several cities, and, among others, a famous one, called *Nysa*, and left besides many other monuments of himself *. And there are at this day remarkable vestiges in India to be found of Egyptian manners and customs; particularly the veneration of the cow †, and the division of the people into certain tribes or *casts* as they call them, each of which practises only one art or profession, such as war, agriculture, merchandise, &c. And I am disposed to believe, that the arts and sciences, of which it is certain the Indians have been in possession for many ages, have risen from seeds sown there by the Egyptians ‡.

* *Diodor. Sicul. lib. 1. cap. 19. p. 23.*

† See, upon this subject, *La Croze, lib. 6. Histor. Christ. Indor. p. 430.*

‡ See *Du Pons's* account of the language, philosophy, and sciences of the *Bramins* of India, in 26th vol. of the *Lettres edifiantes et curieuses*. One science it appears certain that the Indians as well as the Greeks got from Egypt, I mean astronomy: For the Indians represented the signs of the Zodiac by the same animals that the Egyptians and Greeks did; and some of those representations are at this day to be found in certain pagodas of India. See *phil. tranfact. vol. 62. p. 353.* The division above mentioned of the people of India into certain tribes, practising different arts and trades, and the having a race of men set a part for religion and philosophy, is a remarkable peculiarity, in which I think it is impossible,

Now, if we can believe that the Egyptians sent out their colonies to so great a distance as India, or if we only believe that they went as far as the Euxine sea, where the Colchians dwelt, whom Herodotus positively affirms to have been an Egyptian colony, we can hardly doubt of their sending colonies to Greece; a country so much nearer to them, and to which they had so easy access, both by sea and land.

Thus I have endeavoured to shew, that even upon Herodotus's supposition, of the Pelasgic being a barbarous language, altogether different from Greek, and that the Attic language was the only true Hellenic, there is the greatest reason to believe, that the Attic itself was originally an Egyptian dialect, which came with an Egyptian colony into Attica. And upon this hypothe-

that the Indians and Egyptians could by accident agree. In short, the conformity betwixt the two nations is so great, that it seems to be certain, that the one must have got their arts, sciences, and religion from the other. Some moderns have supposed, that the Egyptians borrowed from the Indians. But this hypothesis is altogether unsupported by fact, and antient authority, and is contradicted by the history of Egypt, and the traditions of India, as above related, and by what Herodotus tells us, that the Egyptians borrowed nothing from other nations.

fis, I think, we may account for the possibility of that change of language which Herodotus says happened in Attica after the expulsion of the Pelasgi. These Pelasgi possessed Attica before the arrival of Cecrops. This Herodotus very plainly intimates, when he tells us, that, while the Pelasgi were masters of what is now called *Greece*, the Athenians were Pelasgi, and were called *Cranai*; then, under Cecrops their king, they were called *Cecropidae*; then, under Erechtheus, a succeeding king, their name was changed into *Athenians*, &c *. Now, if it be true, as I have endeavoured to shew, that the Pelasgi spoke the Egyptian language, as they were at that time long from Egypt, it must have been a dialect of it different from that which was newly imported by Cecrops, and perhaps from a different part of the country. The Athenians therefore, in place of the old Egyptian of the Pelasgi, may have learned a more modern dialect of it from this king and his followers. For, though it be almost impossible, that a whole people having once learned a regular-formed language, and been in use

* *Herodot. lib. 8. cap. 44.*

to speak it for some time, should unlearn it, and acquire another quite different; they may change one dialect of the same language for another, as we see men among us get free of their provincial dialect, and learn one more courtly and polite.

If the arguments that I have used to prove, that both races of the Greek nation were originally from Egypt, do not appear so convincing to the reader as they do to me, there are not wanting other proofs, and these more direct, of the Egyptian and Greek languages being originally the same. And, first, if it be true, as I have endeavoured to shew, that there is a resemblance betwixt the Greek and the Hebrew, and if it be also true, that there is such a similarity betwixt the Hebrew and Egyptian as could not be accidental, it will follow of necessary consequence, that there must have been a connection betwixt the Egyptian and Greek. Now, that there is such a similarity betwixt the Hebrew and Egyptian, is evident from the scattered remains of the Egyptian in the writings of the antients, which have been carefully collected by learned men, particularly Bochart and Thomassin, and

compared with the Greek. Some of these words are preserved in the sacred writings, and particularly the name *Moses*, which it is said Pharaoh's daughter imposed upon the child that she drew out of the river *, is, as I am certainly informed, a Hebrew word, signifying what it is said in the text to denote, viz. *the being extracted, or drawn out*. And the name also which Pharaoh gave to Joseph †, is likewise thought, by learned men, to be a Hebrew word, signifying *an interpreter of secret things* ‡.

Another proof more direct still is, the conformity which is at this day to be found betwixt the Greek and the *Coptic*, that is, the remains of the old Egyptian, which still continue to be spoken in Egypt. This conformity appears so great to the learned Kircher, that he thinks the one must be derived from the other; but he says it is difficult to determine whether the Greek be derived from the Egyptian, or the Egyptian from

* *Exodus, ch. ii. v. 10.*

† *Genes. ch. xli. v. 45.*

‡ See *Squire's Inquiry, p. 171.*

the Greek *. But this appears to me to be a question very easily determined: For even the vanity of the Greeks never pretended, that the Egyptians had borrowed any arts from them of any kind, much less this most necessary art of life. Nor do I know that any other nation ever boasted of the Egyptians being obliged to them for any invention, except the Ethiopians, who, as I have said, were originally the same people.

Other arguments might be used to shew the conformity betwixt the Egyptian and the antient language of Greece; some of which Mr Squire, in the Inquiry above quoted, has very well enforced; such as the authority and ascendant which single Egyptian strangers gained over the people of Greece, and which it is hardly possible to conceive how they should have gained, if they had been entirely ignorant of the language of the country: And how should those many Greek strangers that travelled into Egypt in antient times, such as Orpheus, Musaeus, Linus, Homer, &c. have been so successful in learning and importing into Greece the

* *Squire's Inquiry*, p. 175.

religion and arts of Egypt, if they had been obliged to undergo the drudgery of acquiring a language quite different from their own, as well as of learning those arts? But I think enough has been said already to make it highly probable, and indeed as certain as any matter of such remote antiquity can be, that Egypt was the parent-country, at least with respect to Europe and the western parts of Asia, of language, as well as of other arts.

But was this language, so far spread, invented in Egypt, as well as derived from thence to the several countries where it was spoken? This is a question that cannot, like the one we have been speaking of concerning the propagation of languages, be decided by history and facts, but is a matter of argument and probable conjecture. One thing, I think, cannot be denied, that Egypt, of all the countries in this part of the globe, is that where it is the most likely a language of art should have been invented. In any country where any common business was carried on by men, a barbarous jargon, such as we have described, may have been invented; and, I am persuaded, many such were invented in diffe-

rent parts of the world : But, without the closest intercourse of social life, it appears to me impossible, that an art of such refinement as the art of language could have been discovered. Now, such intercourse there is not among savages that subsist by hunting, fishing, or the natural fruits of the earth. It is to be found only among men that subsist by agriculture, and live in cities, under regular forms of government. Now, the Egyptians were certainly the first people in the neighbourhood of Europe who lived in that way, being obliged to do so by the nature of their country. For, as their land was under water a considerable part of the year, they could not subsist by hunting or pasturage, nor without agriculture, at least in any great number; and it was necessary for them to have cities or villages, such as we know those of Egypt were, raised upon mounds of earth, in which they might live in the time of the inundation. This nature of their country, it is admitted, gave birth to geometry among them, and, I am persuaded, to many other arts. They were likewise the first people, as far as we know, that were civilized, and lived under a regular

government. For these reasons, I think it is probable, that they first invented the art of language, as well as the art of noting it by alphabetical characters, and every other art and science of which we are in possession. And accordingly it is recorded in the Egyptian annals, that *Teuth*, or *Hermes*, as he was called by the Greeks, invented the grammatical, as well as the writing art; giving a form to language, and imposing names upon things that had none before*.

But was this language, which I suppose may have been invented in Egypt, and carried to so many different countries, propagated all over the earth? Are we to believe that the Huron †, the Algonkin, the

* *Diodor. Sicul. lib. 1. cap. 15. p. 19.* His words are: Ὑπο γὰρ τούτων (Ἑρμοῦ) πρῶτον μὲν τὴν τε κοινὴν διακλίσειν διακρῆσθῆναι, καὶ πολλὰ τῶν ἀνομιμῶν τυχεῖν προσηγορίας. From which it appears, that there was a language used in Egypt before Teuth; but he first distinguished it properly by articulation, and gave names to things. For, before him, it would seem, that the Egyptians used only *verba quibus voces ensusque retarent*, but had not invented *nomina*, or *names*; at least not names for every thing. See also, concerning this Teuth, Plato in *Philelo*, p. 18.; *et in Phaedro*, p. 274.; *Plutarch*, tom. 2. p. 738.

† The Huron language may, I think, be supposed to have been invented by the people who speak it: For the Hurons appear to be the most ancient nation in that

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Caribbee, and all the many different languages spoken in North and South America; the language of Otaheite, and the other islands or continents that may be in the great Pacific ocean; the hissing language of the Troglodytes in Abyffinia; or the muttering jargon of those savages, mentioned by Condamin, upon the banks of the river Amazons, spoken, as he says, by drawing in the breath; or the language, if they

part of the world; and, tho' they be now almost exterminated by the Iroquois, or five nations, they were once the most powerful and most numerous nation in North America. For, at the time when Gabriel Sagard wrote, which was about 1630, they were a sedentary nation, as he calls them, the rest of the nations in that part of the world being for the greater part errant; p. 128. They had five and twenty towns and villages, the greatest of which consisted of two hundred large cabins, or houses, made of the bark of trees, each containing four and twenty families; p. 116. and 120. And he tells us, that they subsisted, for the greater part, by agriculture. And indeed it was impossible that so many could be maintained in a country where the winter is so severe, without that art. So that here we have men living together in towns and villages, and so many, under one roof, practising the arts of hunting, fishing, and agriculture, and consequently in such a close intercourse or society, as we suppose gave birth to the invention of language in Egypt.

have any, of the men with tails in the island of Nicobar, are all dialects of the same parent-language, which I suppose to have been invented in Egypt? This might be credible, if there were any history or tradition of all the world being peopled by colonies from that country, or if there were any such conformity of those languages last mentioned, either with one another, or with the language of Egypt, as is to be found in the other languages above mentioned; if, for example, they agreed in religious terms, in words expressing numbers, or relations of persons, or any other capital words of necessary and frequent use. But the fact is, that, as far as we know of those languages, they differ totally from one another, particularly in the names of numbers. Of these I have given specimens from the Huron, the Algonkin, and the Otaheite languages, all differing extremely from one another; and it is impossible, I should think, to connect them with the same names in any of the languages that I suppose to be derived from Egypt. I have given also the name of the number *three* used by those savages upon the banks of the river Ama-

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zons, which he must be an able etymologist indeed who can derive from any Hebrew root; and I think I may say the same of the Esquimaux words expressing *much* and *little*.

I cannot therefore carry the propagation of language further than I have done. I think it probable, that all the languages spoken in Europe, all Asia, if you will, and some part of Africa, are dialects of one parent-language, which probably was invented in Egypt. But I am not warranted to go further, either by the reason of the thing, by historical facts, or by any thing I can discover in the languages themselves. Some, I know, are very fond of the system of an universal language; but, when they come to prove it by facts, and by the languages themselves, I think they fail very much; as may be seen from that dictionary of universal language which Mons. Bullet has subjoined to his Celtic dictionary. Whatever therefore we may believe of there having been once but one language upon the face of the earth, we must, I think, allow that it is now either totally lost in a great part of the earth, or so depraved and corrupted as no longer to be known.

C H A P. XIV.

Changes to which Language is liable ;—especially in its Passage from one People to another.—Examples of that Kind.—General Observations upon Etymology, and the Derivation of one Language from another.—Conclusion and Recapitulation.

Although language be of a nature so durable, that I doubt whether there be an example of a language of art being totally lost ; yet it is extremely mutable as to its form and fashion ; as mutable, I believe, as any thing belonging to man. Words, says Horace, are as liable to change and decay as the leaves of trees :

*Ut sylvae foliis pronos mutantur in annos ;
Prima cadunt ; ita verborum vetus interit
aetas,*

*Et juvenum ritu florent modo nata, vigent-
que.*

Debemur morti nos nostraque.

HOR. *Ars Poët.*

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Thus the languages spoken in the several nations of Europe only three hundred years ago, are so different from the present, that, if we can understand them at all, it is only by the help of learned critics who have composed glossaries and dictionaries of them. Nor is there any way of fixing and giving a standard to a language, otherwise than by written records, that is, by books, one or more, which are allowed to be perfect in their style and composition. Thus, though there can be no doubt that the Greek language underwent many variations before the days of Homer, his poems fixed the standard of it; so that there was no considerable variation of it from his time down to the taking of Constantinople by the Turks; that is, for the space of near three thousand years: For we have at that time books written in Greek with as much purity of style, and almost as much elegance, as any written in any preceding period. The English language, in like manner, was in a constant state of fluctuation down to the reign of James I. when it was fixed by the translation of the Bible, which is the standard of our language as well as of our faith; and every variation that has been made from it

is, in my opinion, for the worse. And to give one example more, the standard of the Arabic was in the same manner fixed by their religious record, the Koran, which is held to be so perfect in its style and composition, that it is used by the Mahometan doctors, as a proof of the divine mission and inspiration of their prophet, who being an illiterate man, they say, could not otherwise have composed such a book. And by this method of record, as I observed before, the life of a language is perpetuated, and it still exists after it ceases to be a living language; and perhaps in greater purity, and with less hazard of corruption, than while it continued to be spoken.

But, if a language be thus liable to change while it is in the mouths of the same people, how much more altered must it be when it is derived to different tribes and nations, living perhaps in parts very remote from the mother-country of the language, under the influence of different climates, customs, and manners, and mixing with other nations speaking different languages? In such a case, to distinguish the mother from the child, or even to perceive any connection betwixt the two, is a matter of great learn-

ing and nice discernment. It is in this that the art of that part of grammar we call *etymology* consists; and if, in tracing the progress of a language from one nation to another, the derivations appear sometimes to be forced and far-fetched, we must not therefore reject them. The French, Spanish, and Italian, are undoubtedly derived from the Latin; and yet how different are the words in those languages from the Latin words? The author of the Mechanism of language, whom I quoted in the beginning of this work, has given us sundry examples of the surprising change that words have undergone in their passage from the Latin into those languages: I will add some few more. Who would think that the French words *Vendredi*, *noël*, and *careme*, or *carême*, as they write it now, came from the Latin words *Venus*, *natalis*, and *quadragesimus**: yet nothing is more certain: For *Vendredi* is from *Veneris dies*, by cutting off the termination *-is* of *Veneris*, transposing the *r* and *e*, and inserting a *d* betwixt the *n* and *r*; and then by cutting off the termination

* These examples are furnished me by *Ogerius*, the Italian author above mentioned, who writes upon the affinity of the Greek and Latin with the Hebrew, p. 84.

-es from the word *dies*. *Noël* is formed from *natalis*, by striking out the *t*, changing the two *a*'s into *o* and *e*, and taking away the termination *is*; which last is commonly done in the words which the French have taken from the Latin. Thus, in place of *ventus*, they say *vent*. And from *quadragessimus*, *careme* is derived, by cutting off in like manner the termination *us*, changing the *qu* in the beginning of the word into the consonant *c* of like sound, and abridging the rest of the word, by throwing out the consonants *d* and *g*, and the vowels *a* and *i*.

I will give one example more, from our English language. Who would think that the word *stranger* was derived from the Latin preposition *ex*? and yet there is no genealogy of a word more certain: For, from *ex* comes *extra*; from *extra*, *extraneus*; from *extraneus*, the French word *eſtranger*, (for so they spelled it of old); and from *eſtranger* comes our English word *stranger*, by throwing out the initial *e*, as happens in several words, particularly the word *eſcuage*, from which comes the English word *ſcutage*, ſignifying the aſſeſſment which a knight who was armed with a *ſcutum*, or ſhield, paid for the diſpenſation of perſonal ſervice.

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It would be beside the purpose of this work to dwell longer upon the particulars of etymology and derivation, and the changes which a language undergoes in its passage from one nation to another. What I have further to say upon this subject will be more proper when I come to speak of the corruption of language, which will be the subject of the last part of my work. I will therefore conclude this part with two or three general observations.

And, in the *first* place, We are to distinguish betwixt a dialect of a language and the corruption of a language. The Attic, Ionic, Doric, and Eolic, are all dialects of the original Pelasgic or Hellenic, but none of them corruptions of it. Neither is the Latin a corruption of the Greek, but a dialect; only it is a dialect that came off very early, and was not so much cultivated and improved as the other dialects above mentioned. It therefore has not all the numbers, voices, and tenses of those dialects, nor that variety of flexion and copiousness of sound in which the Greek language so much excels all others that I know. It appears to me, from comparing the remains of old Latin, yet extant, with the later Latin,

that the Romans, when they came to be a great people, and to apply to arts and sciences, polished and improved their language upon the model of the Greek, by clearing it of the rust of the antient Pelasgic, or of what mixture of a more barbarous language there may have been in it. And this I take to be what Plutarch means when he says, that the later Latin was much liker the Greek than the antient.

On the other hand, the French, Spanish, and Italian, are clearly corruptions of the Latin, by which the analogy, that makes so great a part of the art of language, is lost, and the words almost all made indeclinable.

It is not easy, merely by a comparison of the languages, to say, whether the worst of the two be the corruption of the other, or the original language out of which it is formed and improved by the addition of proper terminations and flexions. Thus it would be difficult to determine, whether the Pelasgic, Hebrew, or Egyptian, was a corruption of the Greek, or whether they were the parent-languages out of which the Greek was formed, if we did not know from history, that those languages were much more antient than the Greek. In the same man-

ner, it would not be easy to decide, whether the English, or any other dialect of the Teutonic presently spoken in Europe, was a corruption of the Gothic and Saxon, or whether the Gothic and Saxon were an improvement of the English, if we did not know from history, that the most perfect of them is the most antient: For the Gothic is a more perfect language than the Saxon, having, as I have shewn, almost as much variety of termination and flexion as the Greek, and the Saxon is more perfect than the English. The case, therefore, with respect to those dialects of the Teutonic, is just the reverse of what has happened with respect to the Greek and Latin, which are improvements of their parent-languages: Whereas the English, and other dialects of the Teutonic, are so many corruptions of theirs.

Another observation is, That, in judging of the affinity of languages, we are to have little regard to the vowels, but chiefly to consider the consonants. For, as I observed when I was explaining the nature of articulate sounds, it is the consonants which break and distinguish the voice most, and

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make the principal part of articulation. The consonants therefore may be said to be the bones and sinews of a language, while the vowels are little more than the vehicles of breath by which they are enunciated. Accordingly, in the Hebrew, many learned men are of opinion, that no points or marks of vowels were originally used. And the fact undoubtedly is, that at this day the Arabians, in common writing, use no such marks, but only in transcribing the Alcoran, or any of their antient poems, for which they have a particular esteem, in order to prevent all possibility of mistake. In the different dialects of the Greek, we see how the vowels are changed; and in the same dialect the cases and tenses, and, in general, the declension of their words is in a great measure by change of the vowels. Nor does the change of the vowel appear to me to be so material a thing in the Greek language, as the change of the time, or quantity of it: For we often see one short vowel changed for another, or one long vowel for another, in the different dialects; but seldom a short for a long, or a long for a short.

But the change even of consonants does not often make so great a change of the word

as might be expected: For consonants of the same organ are easily interchanged. Thus, *b, p, v, f*, being all labial consonants, are frequently interchanged in many languages *. And in Greek, *γ, κ, ξ, χ*, which are all palatine consonants, are commonly changed into one another; particularly in the flec-

* *β* and *μ* are consonants of different kinds, the one being a mute, the other a liquid; yet, as they are both of the same organ, being both labial, though the *β* be pronounced by the opening and explosion of the lips, the other, by closing them with a beat or chop, they too are interchanged. Thus *μορος* is a Greek word, which signifies *fatum*, from whence the Latin *mors* and *moria*, and the Greek word *μορτος*, signifying *homo*, or *mortalis*, as in that passage of *Callimachus*, *ιδεμαρην ακτα μορτοι*. Now, the *μ* being changed into *β*, (which was the custom of the Eolians; for, in place of *μυμηξ*, they said *βυμηξ*, from whence the Latin *formica*) and the *ο* and *ε* transposed, which is also very common, it becomes *βετος*, which is the common Greek word for *homo* or *mortalis*. This observation, I see, is made in one of the philological letters of Dr Baxter, published by the society of antiquaries in London. It shews how much words in the same language, spoken by the same people, will change. But how much greater must the change be in the passage of a language from one people to another? We ought not therefore rashly to reject those derivations which learned men have discovered of Greek and Latin words from Hebrew, Celtic, or Teutonic roots, though the words do not agree in their consonants any more than in their vowels.

tion of nouns and verbs; and the soft, middle, and aspirated mute consonants of the same order, are very often changed into one another in the different dialects. Thus δ is the middle consonant betwixt the τ and the σ , and therefore the Latins, in place of the Greek $\theta\epsilon\omicron\varsigma$, say *Deus*.

The last observation I shall make is, That they appear to me to be much mistaken, who think we ought to judge of the affinity of languages chiefly by the flexion or analogy, and not by the word itself, or by its termination: For these are the three things, as I observed, by which we determine the relation of languages to one another. But, on the contrary, I maintain, that it is the mark of likeness which least of all is to be regarded: For, if we were to judge by that rule, we could not say that the French, Spanish, or Italian, are derived from the Latin; because the flexion, as well as the termination, and in general the grammar, of those languages, is very different from that of the Latin. But the case truly is, that, if the one language be a corruption of the other, as the languages just now mentioned are of the Latin, the flexion, and very often the termination, will be diffe-

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rent: Or, if the one language be at a distance from the source, and be much more cultivated and improved than the parent-language, its flexions or analogy will be very different; and if it be at a great distance, its terminations will also be different. Thus, the Greek, being further removed from the Oriental languages than the Latin, has both its flexions and its terminations quite different: Whereas the Latin, not being so far removed, though it have different flexions, has, as we have shewn, a great similarity to those languages in its terminations.

With these observations I conclude this book, and this first part of the work; in which I have endeavoured to shew, That no part of language, neither *matter* nor *form*, is natural to man, but the effect of acquired habit:—That this habit could not have been acquired, except by men living in political society; but that neither is the political life natural to man:—That the political life arose from the necessities of men, and that it may exist without the use of language:—That the first languages were without art, such as might be expected among people altogether barbarous:—And, lastly, That, if language

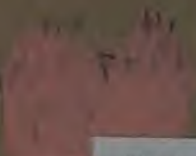
was at all invented, there is no reason to believe that it was invented only in one nation, and that all the languages of the earth are but dialects of that one original language; although there be good reason to believe, that language has not been the invention of many nations, and that all those presently spoken in Europe, Asia, and a part of Africa, are derived from one original language.

The End of PART I.

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