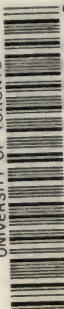


UNIVERSITY OF TORONTO



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AN
ESSAY

CONCERNING

HUMAN UNDERSTANDING.

WRITTEN

BY JOHN LOCKE, GENT.

ALSO,

EXTRACTED FROM THE AUTHOR'S WORKS,

- | | |
|--|---|
| I. Analysis of Mr. Locke's Doctrine of Ideas, on a large Sheet. | IV. Some Thoughts concerning Reading and Study for a Gentleman. |
| II. A Defence of Mr. Locke's Opinion concerning personal Identity. | V. Elements of Natural Philosophy. |
| III. A Treatise on the Conduct of the Understanding. | VI. A New Method of a Common-Place Book. |

A NEW EDITION.

IN THREE VOLUMES.

VOL. II.

EDINBURGH:

PRINTED FOR DOIG & STIRLING.

1815.

B

1292

1815

V.2



EDINBURGH:
Wm. B. Ewing & Co. Carke.

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HUMAN UNDERSTANDING.

 BOOK II.—CHAP. XXVIII.

OF OTHER RELATIONS.

§ 1. *Proportional.*

BESIDES the before-mentioned occasions of time, place, and causality, of comparing, or referring things one to another, there are, as I have said, infinite others, some whereof I shall mention.

First, The first I shall name is some one simple idea; which being capable of parts or degrees, affords an occasion of comparing the subjects wherein it is to one another, in respect to that simple idea, *v. g.* whiter, sweeter, equal, more, &c. These relations depending on the equality and excess of the same simple idea, in several subjects, may be called, if one will, proportional; and that these are only conversant about those simple ideas received from sensation or reflection, is so evident, that nothing need be said to evince it.

§ 2. *Natural.*

Secondly, Another occasion of comparing things together, or considering one thing, so as to include in that consideration some other thing, is the circum-

stances of their origin or beginning; which being not afterwards to be altered, make the relations depending thereon as lasting as the subjects to which they belong; *v. g.* father and son, brothers, cousin-germans, &c. which have their relations by one community of blood, wherein they partake in several degrees: countrymen, *i. e.* those who were born in the same country, or tract of ground; and these I call natural relations: wherein we may observe, that mankind have fitted their notions and words to the use of common life; and not to the truth and extent of things. For it is certain, that in reality the relation is the same betwixt the begetter and the begotten, in the several races of other animals as well as men: but yet it is seldom said, this bull is the grandfather of such a calf; or that two pigeons are cousin-germans. It is very convenient, that by distinct names these relations should be observed, and marked out in mankind; there being occasion, both in laws, and other communications one with another, to mention and take notice of men under these relations: from whence also arise the obligations of several duties amongst men. Whereas in brutes, men having very little or no cause to mind these relations, they have not thought fit to give them distinct and peculiar names. This, by the way, may give us some light into the different state and growth of languages; which, being suited only to the convenience of communication, are proportioned to the notions men have, and the commerce of thoughts familiar amongst them; and not to the reality or extent of things, nor to the various respects might be found among them, nor the different abstract considerations might be framed about them. Where they had no philosophical notions, there they had no terms to express them: and it is no wonder men should have framed no names for those things they found no occasion to discourse of. From whence it is easy to imagine, why, as in some countries, they may have not so

much as the name for a horse; and in others where they are more careful of the pedigrees of their horses, than of their own, that there they may have not only names for particular horses, but also of their several relations of kindred one to another.

§ 3. *Instituted.*

Thirdly, Sometimes the foundation of considering things, with reference to one another, is some act whereby any one comes by a moral right, power, or obligation to do something. Thus a general is one that hath power to command an army; and an army under a general is a collection of armed men obliged to obey one man. A citizen or a burgher, is one who has a right to certain privileges in this or that place. All this sort depending upon men's wills, or agreement in society, I call instituted, or voluntary; and may be distinguished from the natural, in that they are most, if not all of them, some way or other alterable, and separable from the persons to whom they have sometimes belonged, though neither of the substances, so related, be destroyed. Now though these are all reciprocal, as well as the rest, and contain in them a reference of two things one to the other; yet, because one of the two things often wants a relative name, importing that reference, men usually take no notice of it, and the relation is commonly overlooked: *v. g.* a patron and client are easily allowed to be relations, but a constable or dictator are not so readily, at first hearing, considered as such; because there is no peculiar name for those who are under the command of a dictator, or constable, expressing a relation to either of them: though it be certain, that either of them hath a certain power over some others; and so is so far related to them, as well as a patron is to his client, or general to his army.

§ 4. *Moral.*

Fourthly, There is another sort of relation, which is the conformity, or disagreement, men's voluntary

actions have to a rule to which they are referred, and by which they are judged of; which, I think, may be called moral relation, as being that which denominates our moral actions, and deserves well to be examined; there being no part of knowledge wherein we should be more careful to get determined ideas, and avoid, as much as may be, obscurity and confusion. Human actions, when with their various ends, objects, manners, and circumstances, they are framed into distinct complex ideas, are, as has been shown, so many mixed modes, a great part whereof have names annexed to them. Thus, supposing gratitude to be a readiness to acknowledge and return kindness received, polygamy to be the having more wives than one at once; when we frame these notions thus in our minds, we have there so many determined ideas of mixed modes. But this is not all that concerns our actions; it is not enough to have determined ideas of them, and to know what names belong to such and such combinations of ideas. We have a farther and greater concernment, and that is, to know whether such actions so made up are morally good or bad.

§ 5. *Moral good and evil.*

Good and evil, as hath been shown, b. ii. chap. 20. § 2. and chap. 21. § 42. are nothing but pleasure or pain, or that which occasions or procures pleasure or pain to us. Moral good and evil then is only the conformity or disagreement of our voluntary actions to some law, whereby good or evil is drawn on us by the will and power of the law-maker; which good and evil, pleasure or pain, attending our observance, or breach of the law, by the degree of the law-maker, is that we call reward and punishment.

§ 6. *Moral rules.*

Of these moral rules, or laws, to which men generally refer, and by which they judge of the rectitude or pravity of their actions, there seem to me to be three sorts, with their three different enforcements,

or rewards and punishments. For since it would be utterly in vain to suppose a rule set to the free actions of men, without annexing to it some enforcement of good and evil to determine his will, we must, wherever we suppose a law, suppose also some reward or punishment annexed to that law. It would be in vain for one intelligent being to set a rule to the actions of another, if he had it not in his power to reward the compliance with, and punish deviation from his rule, by some good and evil, that is not the natural product and consequence of the action itself. For that being a natural convenience or inconvenience, would operate of itself without a law. This, if I mistake not, is the true nature of all law, properly so called.

§ 7. *Laws.*

The laws that men generally refer their actions to, to judge of their rectitude or obliquity, seem to me to be these three. 1. The divine law. 2. The civil law. 3. The law of opinion or reputation, if I may so call it. By the relation they bear to the first of these, men judge whether their actions are sins or duties; by the second, whether they be criminal or innocent; and by the third, whether they be virtues or vices.

§ 8. *Divine law, the measure of sin and duty.*

First, the divine law, whereby I mean that law which God has set to the actions of men, whether promulgated to them by the light of nature, or the voice of revelation. That God has given a rule whereby men should govern themselves, I think there is nobody so brutish as to deny. He has a right to do it, we are his creatures: he has goodness and wisdom to direct our actions to that which is best; and he has power to enforce it by rewards and punishments, of infinite weight and duration in another life: for nobody can take us out of his hands. This is the only true touchstone of moral rectitude; and by comparing them to this law it is, that men judge

of the most considerable moral good or evil of their actions: that is, whether as duties or sins, they are like to procure them happiness or misery from the hands of the Almighty.

§ 9. *Civil law, the measure of crimes and innocence.*

Secondly, the civil law, the rule set by the commonwealth to the actions of those who belong to it, is another rule to which men refer their actions, to judge whether they be criminal or no. This law nobody overlooks, the rewards and punishments that enforce it being ready at hand, and suitable to the power that makes it; which is the force of the commonwealth, engaged to protect the lives, liberties, and possessions of those who live according to its law; and has power to take away life, liberty, or goods from him who disobeys: which is the punishment of offences committed against this law.

§ 10. *Philosophical law the measure of virtue and vice.*

Thirdly, the law of opinion or reputation. Virtue and vice are names pretended and supposed every-where to stand for actions in their own nature right and wrong; and as far as they really are so applied, they so far are co-incident with the the divine law above-mentioned. But yet whatever is pretended, this is visible, that these names virtue and vice, in the particular instances of their application, through the several nations and societies of men in the world, are constantly attributed only to such actions as in each country and society are in reputation or discredit. Nor is it to be thought strange, that men every-where should give the name of virtue to those actions, which amongst them are judged praise-worthy; and call that vice, which they account blameable; since otherwise they would condemn themselves, if they should think any thing right, to which they allowed not commendation: any thing wrong, which they let pass without blame. Thus the measure of what is every-where called and esteemed virtue and vice, is the approbation or dislike, praise or

blame, which by a secret and tacit consent establishes itself in the several societies, tribes, and clubs of men in the world; whereby several actions come to find credit or disgrace amongst them, according to the judgment, maxims, or fashion of that place. For though men uniting into politic societies have resigned up to the public the disposing of all their force, so that they cannot employ it against any fellow-citizens, any farther than the law of the country directs; yet they retain still the power of thinking well or ill, approving or disapproving of the actions of those whom they live amongst, and converse with: and by this approbation and dislike they establish amongst themselves what they will call virtue and vice.

§ 11.

That this is the common measure of virtue and vice, will appear to any one who considers, that though that passes for vice in one country, which is counted a virtue, or at least not vice in another; yet, every-where, virtue and praise, vice and blame go together. Virtue is every-where that which is thought praise-worthy; and nothing else but that which has the allowance of public esteem is called virtue*.

* Our author, in his preface to the fourth edition, taking notice how apt men have been to mistake him, added what here follows: Of this the ingenious author of the discourse concerning the nature of man has given me a late instance, to mention no other. For the civility of his expressions, and the candour that belongs to his order, forbid me to think, that he would have closed his preface with an insinuation, as if in what I have said, book ii. chap. 28. concerning the third rule which men refer their actions to, I went about to make virtue vice, and vice virtue, unless he had mistaken my meaning: which he could not have done, if he had but given himself the trouble to consider what the argument was I was then upon, and what was the chief design of that chapter, plainly enough set down in the fourth section, and those following. For I was there not laying down moral rules, but showing the original and nature of moral ideas, and enumerating the rules men make use of in moral relations, whether those rules were true or false: and, pursuant thereunto, I tell what has every-where that denomination, which in the language of that place answers to virtue, and vice in ours; which alters not the nature of things, though men do generally judge of, and denominate their ac-

Virtue and praise are so united, that they are called often by the same name. “Sunt sua præmia laudi,” says Virgil; and so Cicero, “nihil habet natura præstantius, quam honestatem, quam laudem, quam

tions according to the esteem and fashion of the place, or sect they are of.

If he had been at the pains to reflect on what I had said, b. i. c. 3. § 18. and in this present chapter, § 13, 14, 15, and 20, he would have known what I think of the eternal and unalterable nature of right and wrong, and what I call virtue and vice: and if he had observed, that, in the place he quotes, I only report as matter of fact what others call virtue and vice, he would not have found it liable to any great exception. For, I think, I am not much out in saying, that one of the rules made use of in the world for a ground or measure of a moral relation, is that esteem and reputation which several sorts of actions find variously in the several societies of men, according to which they are there called virtues or vices; and whatever authority the learned Mr. Lowde places in his old English dictionary, I dare say it nowhere tells him (if I should appeal to it) that the same action is not in credit, called and counted a virtue in one place, which being in disrepute, passes for and under the name of vice in another. The taking notice that men bestow the names of virtue and vice according to this rule of reputation, is all I have done, or can be laid to my charge to have done, towards the making vice virtue, and virtue vice. But the good man does well, and as becomes his calling, to be watchful in such points, and to take the alarm even at expressions, which standing alone by themselves might sound ill, and be suspected.

It is to this zeal allowable in his function, that I forgive his citing, as he does, these words of mine, in § 11. of this chapter: ‘The exhortations of inspired teachers have not feared to appeal to common repute: “Whatsoever things are lovely, whatsoever things are of good report, if there be any virtue, if there be any praise, &c.” Phil. iv. 8.’ without taking notice of those immediately preceding, which introduce them, and run thus: ‘whereby in the corruption of manners, the true boundaries of the law of nature, which ought to be the rule of virtue and vice, were pretty well preserved; so that even the exhortations of inspired teachers, &c.’ by which words, and the rest of that section, it is plain that I brought this passage of St. Paul, not to prove that the general measure of what men call virtue and vice, throughout the world, was the reputation and fashion of each particular society within itself; but to show, that though it were so, yet, for reasons I there give, men, in that way of denominating their actions, did not for the most part much vary from the law of nature: which is that standing and unalterable rule, by which they ought to judge of the moral rectitude and pravity of their actions, and accordingly denominate them virtues or vices. Had Mr. Lowde considered this, he would have found it little to his purpose to have quoted that passage in a sense I used it not; and would, I imagine, have spared the explication he subjoins to it, as not very necessary.

“dignitatem, quam decus;” which, he tells you, are all names for the same thing, Tusc. lib. ii. This is the language of the heathen philosophers, who well understood wherein their notions of virtue and vice

But I hope this second edition will give him satisfaction in the point, and that this matter is now so expressed, as to show him there was no cause of scruple.

Though I am forced to differ from him in those apprehensions he has expressed in the latter end of his preface, concerning what I had said about virtue and vice; yet we are better agreed than he thinks, in what he says in his third chapter, p. 78, concerning natural inscription and innate notions. I shall not deny him the privilege he claims, p. 52. to state the question as he pleases, especially when he states it so, as to leave nothing in it contrary to what I have said: for, according to him, innate notions being conditional things, depending upon the concurrence of several other circumstances, in order to the soul's exerting them; all that he says for innate, imprinted, impressed notions (for of innate ideas he says nothing at all) amounts at last only to this: that there are certain propositions, which though the soul from the beginning, or when a man is born, does not know, yet by assistance from the outward senses, and the help of some previous cultivation, it may afterwards come certainly to know the truth of; which is no more than what I have affirmed in my first book. For I suppose by the soul's exerting them, he means its beginning to know them, or else the soul's exerting of notions will be to me a very unintelligible expression; and I think at best is a very unfit one in this case, it misleading men's thoughts by an insinuation, as if these notions were in the mind before the soul exerts them, *i. e.* before they are known: whereas truly before they are known, there is nothing of them in the mind, but a capacity to know them, when the concurrence of those circumstances, which this ingenious author thinks necessary in order to the soul's exerting them, brings them into our knowledge.

P. 52. I find him express it thus: ‘these natural notions are not so imprinted upon the soul, as that they naturally and necessarily exert themselves (even in children and idiots) without any assistance from the outward senses, or without the help of some previous cultivation. Here he says they exert themselves, as p. 78. that the soul exerts them. When he has explained to himself or others what he means by the soul's exerting innate notions, or their exerting themselves, and what that previous cultivation and circumstances, in order to their being exerted, are; he will, I suppose, find there is so little of controversy between him and me in the point, bating that he calls that exerting of notions, which I in a more vulgar style call knowing, that I have reason to think he brought in my name upon this occasion only out of the pleasure he has to speak civilly of me; which I must gratefully acknowledge he has done wherever he mentions me, not without conferring on me, as some others have done, a title I have no right to.

consisted, and though perhaps by the different temper, education, fashion, maxims, or interests of different sorts of men, it fell out that what was thought praise-worthy in one place, escaped not censure in another; and so in different societies, virtues and vices were changed; yet, as to the main, they for the most part kept the same every-where. For since nothing can be more natural, than to encourage with esteem and reputation that wherein every one finds his advantage, and to blame and discountenance the contrary; it is no wonder that esteem and discredit, virtue and vice, should in a great measure every-where correspond with the unchangeable rule of right and wrong, which the law of God hath established: there being nothing that so directly and visibly secures and advances the general good of mankind in this world, as obedience to the laws he has set them, and nothing that breeds such mischiefs and confusion, as the neglect of them. And therefore men, without renouncing all sense and reason, and their own interest, which they are so constantly true to, could not generally mistake in placing their commendation and blame on that side that really deserved it not. Nay, even those men whose practice was otherwise, failed not to give their approbation right; few being depraved to that degree, as not to condemn, at least in others, the faults they themselves were guilty of: whereby, even in the corruption of manners, the true boundaries of the law of nature, which ought to be the rule of virtue and vice, were pretty well preferred. So that even the exhortations of inspired teachers have not feared to appeal to common repute: "Whatsoever is lovely, whatsoever is of good report, if there be any virtue, if there be any praise," &c. Phil. iv. 8.

§ 12. *Its enforcements commendation and discredit.*

If any one shall imagine that I have forgot my own notion of a law, when I make the law, whereby men judge of virtue and vice, to be nothing else but

the consent of private men, who have not authority enough to make a law: especially wanting that, which is so necessary and essential to a law, a power to enforce it: I think I may say, that he who imagines commendation and disgrace not to be strong motives to men, to accommodate themselves to the opinions and rules of those with whom they converse, seems little skilled in the nature or history of mankind: the greatest part whereof he shall find to govern themselves chiefly, if not solely, by this law of fashion; and so they do that which keeps them in reputation with their company, little regard the laws of God, or the magistrate. The penalties that attend the breach of God's laws, some, nay, perhaps most men, seldom seriously reflect on; and amongst those that do, many, whilst they break the law, entertain thoughts of future reconciliation, and making their peace for such breaches. And as to the punishments due from the laws of the commonwealth, they frequently flatter themselves with the hopes of impunity. But no man escapes the punishment of their censure and dislike, who offends against the fashion and opinion of the company he keeps, and would recommend himself to. Nor is there one of ten thousand, who is stiff and insensible enough to bear up under the constant dislike and condemnation of his own club. He must be of a strange and unusual constitution, who can content himself to live in constant disgrace and disrepute with his own particular society. Solitude many men have sought, and been reconciled to: but nobody, that has the least thought or sense of a man about him, can live in society under the constant dislike and ill opinion of his familiars, and those he converses with. This is a burden too heavy for human sufferance: and he must be made up of irreconcilable contradictions, who can take pleasure in company, and yet be insensible of contempt and disgrace from his companions.

§ 13. *These three laws the rules of moral good and evil.*

These three then, first, the law of God; secondly, the law of politic societies; thirdly, the law of fashion, or private censure; are those to which men variously compare their actions; and it is by their conformity to one of these laws that they take their measures, when they would judge of their moral rectitude, and denominate their actions good or bad.

§ 14. *Morality is the relation of actions to these rules.*

Whether the rule, to which, as to a touchstone, we bring our voluntary actions, to examine them by, and try their goodness, and accordingly to name them: which is, as it were, the mark of the value we set upon them: whether, I say, we take that rule from the fashion of the country, or the will of a law-maker, the mind is easily able to observe the relation any action hath to it, and to judge whether the action agrees or disagrees with the rule; and so hath a notion of moral goodness or evil, which is either conformity or not conformity of any action to that rule: and therefore is often called moral rectitude. This rule being nothing but a collection of several simple ideas, the conformity thereto is but so ordering the action, that the simple ideas belonging to it may correspond to those which the law requires. And thus we see how moral beings and notions are founded on, and terminated in these simple ideas we have received from sensation or reflection. For example, let us consider the complex idea we signify by the word murder; and when we have taken it asunder, and examined all the particulars, we shall find them to amount to a collection of simple ideas derived from reflection or sensation, viz. first, from reflection on the operations of our own minds, we have the ideas of willing, considering, purposing before-hand, malice, or wishing ill to another; and also of life, or perception, and self-motion. Secondly, from sensation we have the collection of those simple sensible ideas which are to be found in a man, and of some

action, whereby we put an end to perception and motion in the man; all which simple ideas are comprehended in the word murder. This collection of simple ideas being found by me to agree or disagree with the esteem of the country I have been bred in, and to be held by most men there worthy praise or blame, I call the action virtuous or vicious: if I have the will of a supreme invisible law-giver for my rule; then, as I supposed the action commanded or forbidden by God, I call it good or evil, sin or duty: and if I compare it to the civil law, the rule made by the legislative power of the country, I call it lawful or unlawful, a crime or no crime. So that whencesoever we take the rule of moral actions, or by what standard soever we frame in our minds the ideas of virtues or vices, they consist only and are made up of collections of simple ideas, which we originally received from sense or reflection, and their rectitude or obliquity consists in the agreement or disagreement with those patterns prescribed by some law.

§ 15.

To conceive rightly of moral actions, we must take notice of them under this two-fold consideration. First, as they are in themselves each made up of such a collection of simple ideas. Thus drunkenness, or lying, signify such or such a collection of simple ideas, which I call mixed modes, and in this sense they are as much positive absolute ideas, as the drinking of a horse, or speaking of a parrot. Secondly, our actions are considered as good, bad, or indifferent; and in this respect they are relative, it being their conformity to, or disagreement with some rule that makes them to be regular or irregular, good or bad: and so, as far as they are compared with a rule, and thereupon denominated, they come under relation. Thus the challenging and fighting with a man, as it is a certain positive mode, or particular sort of action, by particular ideas, distinguished from all others, is called duelling: which, when considered

in relation to the law of God, will deserve the name sin; to the law of fashion, in some countries, valour and virtue; and to the municipal laws of some governments, a capital crime. In this case, when the positive mode has one name, and another name as it stands in relation to the law, the distinction may as easily be observed, as it is in substances, where one name, *v. g.* man, is used to signify the thing; another, *v. g.* father, to signify the relation.

§ 16. *The denominations of actions often mislead us.*

But because very frequently the positive idea of the action, and its moral relation, are comprehended together under one name, and the same word made use of to express both the mode or action, and its moral rectitude or obliquity; therefore the relation itself is less taken notice of, and there is often no distinction made between the positive idea of the action, and the reference it has to a rule. By which confusion of these two distinct considerations under one term, those who yield too easily to the impressions of sounds, and are forward to take names for things, are often misled in their judgment of actions. Thus the taking from another what is his, without his knowledge or allowance, is properly called stealing; but that name being commonly understood to signify also the moral pravity of the action, and to denote its contrariety to the law, men are apt to condemn whatever they hear called stealing as an ill action, disagreeing with the rule of right. And yet the private taking away his sword from a madman, to prevent his doing mischief, though it be properly denominated stealing, as the name of such a mixed mode; yet when compared to the law of God, and considered in its relation to that supreme rule, it is no sin or transgression, though the name stealing ordinarily carries such an intimation with it.

§ 17. *Relations innumerable.*

And thus much for the relation of human actions to a law, which therefore I call moral relation.

It would make a volume to go over all sorts of relations; it is not therefore to be expected that I should here mention them all. It suffices to our present purpose to show by these, what the ideas are we have of this comprehensive consideration, called relation: which is so various, and the occasions of it so many (as many as there can be of comparing things one to another) that it is not very easy to reduce it to rules, or under just heads. Those I have mentioned, I think, are some of the most considerable, and such as may serve to let us see from whence we get our ideas of relations, and wherein they are founded. But before I quit this argument, from what has been said, give me leave to observe;

§ 18. *All relations terminate in simple ideas.*

First, That it is evident, that all relation terminates in, and is ultimately founded on those simple ideas we have got from sensation or reflection: so that all that we have in our thoughts ourselves (if we think of any thing, or have any meaning) or would signify to others, when we use words standing for relations, is nothing but some simple ideas, or collections of simple ideas, compared one with another. This is so manifest in that sort called proportional, that nothing can be more: for when a man says, honey is sweeter than wax, it is plain that his thoughts in this relation terminate in this simple idea, sweetness, which is equally true of all the rest; though where they are compounded or decomposed, the simple ideas they are made up of are, perhaps, seldom taken notice of. V. g. when the word father is mentioned; first, there is meant that particular species, or collective idea, signified by the word man. Secondly, those sensible simple ideas, signified by the word generation: and, thirdly, the effects of it, and all the simple ideas signified by the word child. So the word friend being taken for a man, who loves, and is ready to do good to another, has all these following ideas to the making of it up: first, all the

simple ideas, comprehended in the word man, or intelligent being. Secondly, the idea of love. Thirdly, the idea of readiness or disposition. Fourthly, the idea of action, which is any kind of thought or motion. Fifthly, the idea of good, which signifies any thing that may advance his happiness, and terminates at last, if examined, in particular simple ideas; of which the word good in general signifies any one, but, if removed from all simple ideas quite, it signifies nothing at all. And thus also all moral words terminate at last, though perhaps more remotely, in a collection of simple ideas; the immediate signification of relative words, being very often other supposed known relations; which, if traced one to another, still end in simple ideas.

§ 19. *We have ordinarily as clear (or clearer) a notion of the relation, as of its foundation.*

Secondly, That in relations we have for the most part, if not always, as clear a notion of the relation, as we have of those simple ideas, wherein it is founded. Agreement or disagreement, whereon relation depends, being things whereof we have commonly as clear ideas, as of any other whatsoever; it being but the distinguishing simple ideas, or their degrees one from another, without which we could have no distinct knowledge at all. For if I have a clear idea of sweetness, light or extension, I have too, of equal, or more or less of each of these: if I know what it is for one man to be born of a woman, viz. Sempronia, I know what it is for another man to be born of the same woman Sempronia; and so have as clear a notion of brothers, as of births, and perhaps clearer. For if I believed that Sempronia dug Titus out of the parsley-bed (as they used to tell children) and thereby became his mother; and that afterwards, in the same manner, she dug Caius out of the parsley-bed; I had as clear a notion of the relation of brothers between them, as if I had all the skill of a midwife: the notion that the same woman contributed,

as mother, equally to their births, (though I were ignorant or mistaken in the manner of it), being that on which I grounded the relation, and that they agreed in that circumstance of birth, let it be what it will. The comparing them then in their descent from the same person, without knowing the particular circumstances of that descent, is enough to found my notion of their having or not having the relation of brothers. But though the ideas of particular relations are capable of being as clear and distinct in the minds of those, who will duly consider them, as those of mixed modes, and more determinate than those of substances; yet the names belonging to relation are often of as doubtful and uncertain signification, as those of substances or mixed modes, and much more than those of simple ideas: because relative words being the marks of this comparison, which is made only by men's thoughts, and is an idea only in men's minds, men frequently apply them to different comparisons of things, according to their own imaginations, which do not always correspond with those of others using the same name.

§ 20. *The notion of the relation is the same, whether the rule any action is compared to be true or false.*

Thirdly, That in these I call moral relations, I have a true notion of relation by comparing the action with the rule, whether the rule be true or false. For if I measure any thing by a yard, I know whether the thing I measure be longer or shorter than that supposed yard, though perhaps the yard I measure by be not exactly the standard; which indeed is another inquiry. For though the rule be erroneous, and I mistaken in it; yet the agreement or disagreement observable in that which I compare with, makes me perceive the relation. Though measuring by a wrong rule, I shall thereby be brought to judge amiss of its moral rectitude, because I have tried it by that which is not the true

rule; yet I am not mistaken in the relation which that action bears to that rule I compare it to, which is agreement or disagreement.

CHAP. XXIX.

OF CLEAR AND OBSCURE, DISTINCT AND CONFUSED IDEAS.

§ 1. *Ideas, some clear and distinct, others obscure and confused.*

HAVING shown the original of our ideas, and taken a view of their several sorts; considered the difference between the simple and the complex, and observed how the complex ones are divided into those of modes, substances, and relations; all which, I think, is necessary to be done by any one, who would acquaint himself thoroughly with the progress of the mind in its apprehension and knowledge of things: it will, perhaps, be thought I have dwelt long enough upon the examination of ideas. I must, nevertheless, crave leave to offer some few other considerations concerning them. The first is, that some are clear, and others obscure; some distinct, and others confused.

§ 2. *Clear and obscure explained by sight.*

The perception of the mind being most aptly explained by words relating to the sight, we shall best understand what is meant by clear and obscure in our ideas, by reflecting on what we call clear and obscure in the objects of sight. Light being that which discovers to us visible objects, we give the name of obscure to that which is not placed in a light sufficient to discover minutely to us the figure and co-

lours, which are observable in it, and which, in a better light, would be discernible. In like manner our simple ideas are clear, when they are such as the objects themselves, from whence they were taken, did or might; in a well-ordered sensation or perception, present them. Whilst the memory retains them thus, and can produce them to the mind, whenever it has occasion to consider them, they are clear ideas. So far as they either want any thing of the original exactness, or have lost any of their first freshness, and are, as it were, faded or tarnished by time; so far are they obscure. Complex ideas, as they are made up of simple ones, so they are clear when the ideas that go to their composition are clear: and the number and order of those simple ideas, that are the ingredients of any complex one, is determinate and certain.

§ 3. *Causes of obscurity.*

The causes of obscurity in simple ideas seem to be either dull organs, or very slight and transient impressions made by the objects, or else a weakness in the memory not able to retain them as received. For, to return again to visible objects to help us to apprehend this matter: if the organs or faculties of perception, like wax over-hardened with cold, will not receive the impression of the seal, from the usual impulse wont to imprint it; or, like wax of a temper too soft, will not hold it well when well imprinted; or else supposing the wax of a temper fit, but the seal not applied with a sufficient force to make a clear impression: in any of these cases the print left by the seal will be obscure. This, I suppose, needs no application to make it plainer.

§ 4. *Distinct and confused, what.*

As a clear idea is that whereof the mind has such a full and evident perception, as it does receive from an outward object operating duly on a well-disposed organ; so a distinct idea is that wherein the mind perceives a difference from all other; and a confused idea is such a one, as is not sufficiently distin-

guishable from another, from which it ought to be different.

§ 5. *Objection.*

If no idea be confused, but such as is not sufficiently distinguishable from another, from which it should be different; it will be hard, may any one say, to find any where a confused idea. For let any idea be as it will, it can be no other but such as the mind perceives it to be; and that very perception sufficiently distinguishes it from all other ideas, which cannot be other, *i. e.* different, without being perceived to be so. No idea therefore can be undistinguishable from another, from which it ought to be different, unless you would have it different from itself: for from all other it is evidently different.

§ 6. *Confusion of ideas is in reference to their names.*

To remove this difficulty, and to help us to conceive aright what it is that makes the confusion ideas are at any time chargeable with, we must consider, that things ranked under distinct names are supposed different enough to be distinguished, and so each sort by its peculiar name may be marked, and discoursed of apart upon any occasion: and there is nothing more evident, than that the greatest part of different names are supposed to stand for different things. Now every idea a man has being visibly what it is, and distinct from all other ideas but itself; that which makes it confused, is, when it is such, that it may as well be called by another name, as that which it is expressed by: the difference which keeps the things (to be ranked under those two different names) distinct, and makes some of them belong rather to the one, and some of them to the other of those names, being left out; and so the distinction, which was intended to be kept up by those different names, is quite lost.

§ 7. *Defaults which make confusion.*

The defaults which usually occasion this confusion, I think, are chiefly these following:

First, complex ideas made up of too few simple ones.

First, when any complex idea (for it is complex ideas that are most liable to confusion) is made up of too small a number of simple ideas, and such only as are common to other things, whereby the differences that make it deserve a different name, are left out. Thus he that has an idea made up of barely the simple ones of a beast with spots, has but a confused idea of a leopard; it not being thereby sufficiently distinguished from a lynx, and several other sorts of beasts that are spotted. So that such an idea, though it hath the peculiar name leopard, is not distinguishable from those designed by the names lynx or panther, and may as well come under the name lynx as leopard. How much the custom of defining of words by general terms contributes to make the ideas we would express by them confused and undetermined, I leave others to consider. This is evident, that confused ideas are such as render the use of words uncertain, and take away the benefit of distinct names. When the ideas, for which we use different terms, have not a difference answerable to their distinct names, and so cannot be distinguished by them, there it is that they are truly confused.

§ 8. *Secondly, or its simple ones jumbled disorderly together.*

Secondly, Another fault which makes our ideas confused, is, when though the particulars that make up any idea are in number enough: yet they are so jumbled together, that it is not easily discernible, whether it more belongs to the name that is given it, than to any other. There is nothing properer to make us conceive this confusion, than a sort of pictures usually shown as surprising pieces of art, wherein the colours, as they are laid by the pencil on the table itself, mark out very odd and unusual figures, and have no discernible order in their position. This draught, thus made up of parts wherein no symmetry nor order appears, is in itself no more a confus-

ed thing, than the picture of a cloudy sky; where-
 in though there be as little order of colours or figures
 to be found, yet nobody thinks it a confused pic-
 ture. What is it then that makes it be thought con-
 fused, since the want of symmetry does not? as it is
 plain it does not; for another draught made, barely
 in imitation of this, could not be called confused. I
 answer, that which makes it be thought confused, is,
 the applying it to some name, to which it does no
 more discernibly belong, than to some other: *v. g.*
 when it is said to be the picture of a man, or Cæsar,
 then any one with reason counts it confused: be-
 cause it is not discernible, in that state, to belong
 more to the name man, or Cæsar, than to the name
 baboon, or Pompey; which are supposed to stand
 for different ideas from those signified by man, or
 Cæsar. But when a cylindrical mirror, placed
 right, hath reduced those irregular lines on the ta-
 ble into their due order and proportion, then the
 confusion ceases, and the eye presently sees that it
 is a man, or Cæsar, *i. e.* that it belongs to those
 names; and that it is sufficiently distinguishable from
 a baboon, or Pompey, *i. e.* from the ideas signified by
 those names. Just thus it is with our ideas, which
 are as it were the pictures of things. No one of these
 mental draughts, however the parts are put together,
 can be called confused (for they are plainly discerni-
 ble as they are) till it be ranked under some ordina-
 ry name, to which it cannot be discerned to belong,
 any more than it does to some other name of an al-
 lowed different signification.

§ 9. *Thirdly, or are mutable and undetermined.*

Thirdly, A third defect that frequently gives the
 name of confused to our ideas, is, when any one of
 them is uncertain and undetermined. Thus we may
 observe men, who not forbearing to use the ordinary
 words of their language, till they have learned their
 precise signification, change the idea they make this
 or that term stand for, almost as often as they use it.

He that does this, out of uncertainty of what he should leave out, or put into his idea of church or idolatry, every time he thinks of either, and holds not steady to any one precise combination of ideas that makes it up, is said to have a confused idea of idolatry or the church: though this be still for the same reason as the former, viz. because a mutable idea (if we will allow it to be one idea) cannot belong to one name rather than another; and so loses the distinction that distinct names are designed for.

§ 10. *Confusion, without reference to names, hardly conceivable.*

By what has been said, we may observe how much names, as supposed steady signs of things, and by their difference to stand for and keep things distinct that in themselves are different, are the occasion of denominating ideas distinct or confused, by a secret and unobserved reference the mind makes of its ideas to such names. This perhaps will be fuller understood, after what I say of words, in the third book, has been read and considered. But without taking notice of such a reference of ideas to distinct names, as the signs of distinct things, it will be hard to say what a confused idea is. And therefore when a man designs, by any name, a sort of things, or any one particular thing, distinct from all others, the complex idea he annexes to that name is the more distinct, the more particular the ideas are, and the greater and more determinate the number and order of them is, whereof it is made up. For the more it has of these, the more it has still of the perceivable differences, whereby it is kept separate and distinct from all ideas belonging to other names, even those that approach nearest to it; and thereby all confusion with them is avoided.

§ 11. *Confusion concerns always two ideas.*

Confusion, making it a difficulty to separate two things that should be separated, concerns always two ideas; and those most, which most approach one an-

oier. Whenever therefore we suspect any idea to be confused, we must examine what other it is in danger to be confounded with, or which it cannot easily be separated from; and that will always be found an idea belonging to another name, and so should be a different thing, from which yet it is not sufficiently distinct; being either the same with it, or making a part of it, or at least as properly called by that name, as the other it is ranked under; and so keeps not that difference from that other idea, which the different names import.

§ 12. *Causes of confusion.*

This, I think, is the confusion proper to ideas, which still carries with it a secret reference to names. At least, if there be any other confusion of ideas, this is that which most of all disorders men's thoughts and discourses: ideas, as ranked under names, being those that for the most part men reason of within themselves, and always those which they commune about with others. And therefore where there are supposed two different ideas marked by two different names, which are not as distinguishable as the sounds that stand for them, there never fails to be confusion: and where any ideas are distinct as the ideas of those two sounds they are marked by, there can be between them no confusion. The way to prevent it is to collect and unite into one complex idea, as precisely as is possible, all those ingredients whereby it is differenced from others; and to them so united in a determinate number and order, apply steadily the same name. But this neither accommodating men's ease or vanity, or serving any design but that of naked truth, which is not always the thing aimed at, such exactness is rather to be wished than hoped for. And since the loose application of names to undetermined, variable, and almost no ideas, serves both to cover our own ignorance, as well as to perplex and confound others, which goes for learning and superiority in knowledge, it is no won-

der that most men should use it themselves, whilst they complain of it in others. Though, I think, no small part of the confusion to be found in the notions of men might by care and ingenuity be avoided, yet I am far from concluding it every where wilful. Some ideas are so complex, and made up of so many parts, that the memory does not easily retain the very same precise combination of simple ideas under one name; much less are we able constantly to divine for what precise complex idea such a name stands in another man's use of it. From the first of these, follows confusion in a man's own reasonings and opinions within himself; from the latter, frequent confusion in discoursing and arguing with others. But having more at large treated of words, their defects and abuses, in the following book, I shall here say no more of it.

§ 13. *Complex ideas may be distinct in one part, and confused in another.*

Our complex ideas being made up of collections, and so variety of simple ones, may accordingly be very clear and distinct in one part, and very obscure and confused in another. In a man who speaks of a chiliaedron, or a body of a thousand sides, the ideas of the figure may be very confused, though that of the number be very distinct; so that he being able to discourse and demonstrate concerning that part of his complex idea, which depends upon the number of a thousand, he is apt to think he has a distinct idea of a chiliaedron; though it be plain he has no precise idea of its figure, so as to distinguish it by that, from one that has but 999 sides; the not observing whereof causes no small error in men's thoughts, and confusion in their discourses.

§ 14. *This, if not heeded, causes confusion in our arguings.*

He that thinks he has a distinct idea of the figure of a chiliaedron, let him for trial-sake take another parcel of the same uniform matter, viz. gold, or wax,

of an equal bulk, and make it into a figure of 999 sides; he will, I doubt not, be able to distinguish these two ideas one from another, by the number of sides; and reason and argue distinctly about them, whilst he keeps his thoughts and reasoning to that part only of these ideas, which is contained in their numbers; as that the sides of the one could be divided into two equal numbers, and of the others not, &c. But when he goes about to distinguish them by their figure, he will there be presently at a loss, and not be able, I think, to frame in his mind two ideas, one of them distinct from the other, by the bare figure of these two pieces of gold; as he could, if the same parcels of gold were made one into a cube, the other a figure of five sides. In which incomplete ideas, we are very apt to impose on ourselves, and wrangle with others, especially where they have particular and familiar names. For being satisfied in that part of the idea, which we have clear; and the name which is familiar to us, being applied to the whole, containing that part also which is imperfect and obscure: we are apt to use it for that confused part, and draw deductions from it, in the obscure part of its signification, as confidently as we do from the other.

§ 15. *Instance in eternity.*

Having frequently in our mouths the name eternity, we are apt to think we have a positive comprehensive idea of it, which is as much as to say, that there is no part of that duration which is not clearly contained in our idea. It is true that he that thinks so may have a clear idea of duration; he may also have a very clear idea of a very great length of duration; he may also have a clear idea of the comparison of that great one with still a greater: but it not being possible for him to include in his idea of any duration, let it be as great as it will, the whole extent together of a duration, where he supposes no end, that part of his idea, which is still beyond the

bounds of that large duration, he represents to his own thoughts, is very obscure and undetermined. And hence it is that in disputes and reasonings concerning eternity, or any other infinite, we are apt to blunder, and involve ourselves in manifest absurdities.

§ 16. *Divisibility of matter.*

In matter we have no clear ideas of the smallness of parts much beyond the smallest that occur to any of our senses: and therefore when we talk of the divisibility of matter in infinitum, though we have clear ideas of division and divisibility, and have also clear ideas of parts made out of a whole by division; yet we have but very obscure and confused ideas of corpuscles, or minute bodies so to be divided, when by former divisions they are reduced to a smallness much exceeding the perception of any of our senses; and so all that we have clear and distinct ideas of, is of what division in general or abstractedly is, and the relation of totum and parts: but of the bulk of the body, to be thus infinitely divided after certain progressions, I think, we have no clear nor distinct idea at all. For I ask any one, whether taking the smallest atom of dust he ever saw, he has any distinct idea (bating still the number, which concerns not extension) betwixt the 100,000th, and the 1,000,000th part of it. Or if he thinks he can refine his ideas to that degree, without losing sight of them, let him add ten cyphers to each of those numbers. Such a degree of smallness is not unreasonable to be supposed, since a division carried on so far brings it no nearer the end of infinite division, than the first division into two halves does. I must confess, for my part, I have no clear distinct ideas of the different bulk or extension of those bodies, having but a very obscure one of either of them. So that, I think, when we talk of division of bodies in infinitum, our idea of their distinct bulks, which is the subject and foundation of division, comes, after a little progres-

sion, to be confounded, and almost lost in obscurity. For that idea, which is to represent only bigness, must be very obscure and confused, which we cannot distinguish from one ten times as big, but only by number; so that we have clear distinct ideas, we may say, of ten and one, but no distinct ideas of two such extensions. It is plain from hence, that when we talk of infinite divisibility of body, or extension, our distinct and clear ideas are only of numbers; but the clear distinct ideas of extension, after some progress of division, are quite lost: and of such minute parts we have no distinct ideas at all; but it returns, as all our ideas of infinite do, at last to that of number always to be added; but thereby never amounts to any distinct idea of actual infinite parts. We have, it is true, a clear idea of division, as often as we think of it; but thereby we have no more a clear idea of infinite parts in matter, than we have a clear idea of an infinite number, by being able still to add new numbers to any assigned numbers we have: endless divisibility giving us no more a clear and distinct idea of actually infinite parts, than endless addibility (if I may so speak) gives us a clear and distinct idea of an actually infinite number; they both being only in a power still of increasing the number, be it already as great as it will. So that of what remains to be added (wherein consists the infinity) we have but an obscure, imperfect, and confused idea; from or about which we can argue or reason with no certainty or clearness, no more than we can in arithmetic, about a number of which we have no such distinct idea as we have of 4 or 100; but only this relative obscure one, that compared to any other, it is still bigger: and we have no more a clear positive idea of it when we say or conceive it is bigger, or more than 400,000,000, than if we should say it is bigger than 40, or 4; 400,000,000 having no nearer a proportion to the end of addition, or number, than 4. For he that adds only 4 to 4, and so

proceeds, shall as soon come to the end of all addition, as he that adds 400,000,000 to 400,000,000. And so likewise in eternity, he that has an idea of but four years, has as much a positive complete idea of eternity, as he that has one of 400,000,000 of years: for what remains of eternity beyond either of these two numbers of years is as clear to the one as the other; *i. e.* neither of them has any clear positive idea of it at all. For he that adds only four years to 4, and so on, shall as soon reach eternity, as he that adds 400,000,000 of years, and so on; or, if he please, doubles the increase as often as he will: the remaining abyss being still as far beyond the end of all these progressions, as it is from the length of a day or an hour. For nothing finite bears any proportion to infinite; and therefore our ideas, which are all finite, cannot bear any. Thus it is also in our idea of extension, when we increase it by addition, as well as when we diminish it by division, and would enlarge our thoughts to infinite space. After a few doublings of those ideas of extension, which are the largest we are accustomed to have, we lose the clear distinct idea of that space: it becomes a confusedly great one, with a surplus of still greater; about which, when we would argue or reason, we shall always find ourselves at a loss; confused ideas in our arguings and deductions from that part of them which is confused, always leading us into confusion.

CHAP. XXX.

OF REAL AND FANTASTICAL IDEAS.

§ 1. *Real ideas are conformable to their archetypes.*

BESIDES what we have already mentioned concerning ideas, other considerations belong to them, in reference to things from whence they are taken, or which they may be supposed to represent: and thus, I think, they may come under a threefold distinction; and are,

First, either real or fantastical.

Secondly, adequate or inadequate.

Thirdly, true or false.

First, by real ideas, I mean such as have a foundation in nature; such as have a conformity with the real being and existence of things, or with their archetypes. Fantastical or chimerical I call such as have no foundation in nature, nor have any conformity with that reality of being to which they are tacitly referred as to their archetypes. If we examine the several sorts of ideas before-mentioned, we shall find, that,

§ 2. *Simple ideas all real.*

First, our simple ideas are all real, all agree to the reality of things, not that they are all of them the images or representations of what does exist; the contrary whereof, in all but the primary qualities of bodies, hath been already shown. But though whiteness and coldness are no more in snow than pain is; yet those ideas of whiteness and coldness, pain, &c. being in us the effects of powers in things without us, ordained by our Maker to produce in us such sensations; they are real ideas in us, whereby we dis-

tinguish the qualities that are really in things themselves. For these several appearances being designed to be the mark, whereby we are to know and distinguish things which we have to do with, our ideas do as well serve us to that purpose, and are as real distinguishing characters, whether they be only constant effects, or else exact resemblances of something in the things themselves; the reality lying in that steady correspondence they have with the distinct constitutions of real beings. But whether they answer to those constitutions, as to causes or patterns, it matters not; it suffices that they are constantly produced by them. And thus our simple ideas are all real and true, because they answer and agree to those powers of things which produce them in our minds; that being all that is requisite to make them real, and not fictions at pleasure. For in simple ideas (as has been shown) the mind is wholly confined to the operation of things upon it, and can make to itself no simple idea, more than what it has received.

§ 3. *Complex ideas are voluntary combinations.*

Though the mind be wholly passive in respect of its simple ideas; yet I think, we may say, it is not so in respect of its complex ideas: for those being combinations of simple ideas put together, and united under one general name; it is plain that the mind of man uses some kind of liberty in forming those complex ideas: how else comes it to pass that one man's idea of gold, or justice, is different from another's? but because he has put in, or left out of his, some simple idea, which the other has not. The question then is, which of these are real, and which barely imaginary combinations? What collections agree to the reality of things, and what not? And to this I say, That,

§ 4. *Mixed modes made of consistent ideas, are real.*

Secondly, mixed modes and relations having no other reality but what they have in the minds of men, there is nothing more required to this kind of ideas

to make them real, but that they be so framed, that there be a possibility of existing conformable to them. These ideas themselves, being archetypes, cannot differ from their archetypes, and so cannot be chimerical, unless any one will jumble together in them inconsistent ideas. Indeed, as any of them have the names of a known language assigned to them, by which he that has them in his mind would signify them to others, so bare possibility of existing is not enough; they must have a conformity to the ordinary signification of the name that is given them, that they may not be thought fantastical: as if a man would give the name of justice to that idea, which common use calls liberality. But this fantasticalness relates more to propriety of speech, than reality of ideas: for a man to be undisturbed in danger, sedately to consider what is fittest to be done, and to execute it steadily, is a mixed mode, or a complex idea of an action which may exist. But to be undisturbed in danger, without using one's reason or industry, is what is also possible to be; and so is as real an idea as the other. Though the first of these, having the name courage given to it, may, in respect of that name, be a right or wrong idea: but the other, whilst it has not a common received name of any known language assigned to it, is not capable of any deformity, being made with no reference to any thing but itself.

§ 5. *Ideas of substances are real, when they agree with the existence of things.*

Thirdly, our complex ideas of substances being made all of them in reference to things existing without us, and intended to be representations of substances, as they really are; are no farther real, than as they are such combinations of simple ideas, as are really united, and co-exist in things without us. On the contrary, those are fantastical which are made up of such collections of simple ideas as were really never united, never were found together in any substance;

v. g. a rational creature, consisting of a horse's head, joined to a body of a human shape, or such as the centaurs are described: or, a body yellow, very malleable, fusible, and fixed; but lighter than common water: or an uniform, unorganized body, consisting, as to sense, all of similar parts, with perception and voluntary motion joined to it. Whether such substances as these can possibly exist or no, it is probable we do not know: but be that as it will, these ideas of substances being made conformable to no pattern existing that we know, and consisting of such collections of ideas, as no substance ever showed us united together, they ought to pass with us for barely imaginary: but much more are those complex ideas so, which contain in them any inconsistency or contradiction of their parts.

CHAP. XXXI.

OF ADEQUATE AND INADEQUATE IDEAS.

§ 1. *Adequate ideas are such as perfectly represent their archetypes.*

OF our real ideas, some are adequate, and some are inadequate. Those I call adequate, which perfectly represent those archetypes which the mind supposes them taken from; which it intends them to stand for, and to which it refers them. Inadequate ideas are such, which are but a partial or incomplete representation of those archetypes to which they are referred. Upon which account it is plain,

§ 2. *Simple ideas all adequate.*

First, that all our simple ideas are adequate. Because being nothing but the effects of certain powers

in things, fitted and ordained by God to produce such sensations in us, they cannot but be correspondent and adequate to those powers: and we are sure they agree to the reality of things. For if sugar produce in us the ideas which we call whiteness and sweetness, we are sure there is a power in sugar to produce those ideas in our minds, or else they could not have been produced by it. And so each sensation answering the power that operates on any of our senses, the idea so produced is a real idea, (and not a fiction of the mind, which has no power to produce any simple idea;) and cannot but be adequate, since it ought only to answer that power: and so all simple ideas are adequate. It is true, the things producing in us these simple ideas are but few of them denominated by us, as if they were only the causes of them; but as if those ideas were real beings in them. For though fire be called painful to the touch, whereby is signified the power of producing in us the idea of pain, yet it is denominated also light and hot; as if light and heat were really something in the fire more than a power to excite these ideas in us; and therefore are called qualities in, or of the fire. But these being nothing, in truth, but powers to excite such ideas in us, I must in that sense be understood, when I speak of secondary qualities, as being in things; or of their ideas, as being the objects that excite them in us. Such ways of speaking, though accommodated to the vulgar notions, without which one cannot be well understood, yet truly signify nothing but those powers which are in things to excite certain sensations or ideas in us: since were there no fit organs to receive the impressions fire makes on the sight and touch, nor a mind joined to those organs to receive the ideas of light and heat by those impressions from the fire or sun, there would yet be no more light or heat in the world, than there would be pain, if there were no sensible creature to feel it, though the sun should continue

just as it is now, and mount *Ætna* flame higher than ever it did. Solidity and extension, and the termination of it, figure, with motion and rest, whereof we have the ideas, would be really in the world as they are, whether there were any sensible being to perceive them or no: and therefore we have reason to look on those as the real modifications of matter, and such are the exciting causes of all our various sensations from bodies. But this being an inquiry not belonging to this place, I shall enter no farther into it, but proceed to show what complex ideas are adequate, and what not.

§ 3. *Modes are all adequate.*

Secondly, our complex ideas of modes being voluntary collections of simple ideas, which the mind puts together without reference to any real archetypes or standing patterns existing any-where, are and cannot but be adequate ideas. Because they not being intended for copies of things really existing, but for archetypes made by the mind to rank and denominate things by, cannot want any thing: they having each of them that combination of ideas, and thereby that perfection which the mind intended they should: so that the mind acquiesces in them, and can find nothing wanting. Thus by having the idea of a figure, with three sides meeting at three angles, I have a complete idea, wherein I require nothing else to make it perfect. That the mind is satisfied with the perfection of this its idea, is plain in that it does not conceive, that any understanding hath, or can have a more complete or perfect idea of that thing it signifies by the word triangle, supposing it to exist, than itself has in that complex idea of three sides and three angles; in which is contained all that is, or can be essential to it, or necessary to complete it, wherever or however it exists. But in our ideas of substances it is otherwise. For there desiring to copy things as they really do exist, and to represent to ourselves that constitution on which all their properties

depend, we perceive our ideas attain not that perfection we intend: we find they still want something we should be glad were in them; and so are all inadequate. But mixed modes and relations, being archetypes without patterns, and so having nothing to represent but themselves, cannot but be adequate, every thing being so to itself. He that at first put together the idea of danger perceived, absence of disorder from fear, sedate consideration of what was justly to be done, and executing that without disturbance, or being deterred by the danger of it, had certainly in his mind that complex idea made up of that combination; and intending it to be nothing else, but what is, not to have in it any other simple ideas, but what it hath, it could not also but be an adequate idea: and laying this up in his memory, with the name courage annexed to it, to signify to others, and denominate from thence any action he should observe to agree with it, had thereby a standard to measure and denominate actions by, as they agreed to it. This idea thus made, and laid up for a pattern, must necessarily be adequate, being referred to nothing else but itself, nor made by any other original, but the good-liking and will of him that first made this combination.

§ 4. *Modes, in reference to settled names, may be inadequate.*

Indeed another coming after, and in conversation learning from him the word courage, may make an idea, to which he gives the name courage, different from what the first author applied it to, and has in his mind, when he uses it. And in this case, if he designs that his idea in thinking should be conformable to the other's idea, as the name he uses in speaking is conformable in sound to his, from whom he learned it, his idea may be very wrong and inadequate: because in this case, making the other man's idea the pattern of his idea in thinking, as the other man's word or sound is the pattern of his in speak-

ing, his idea is so far defective and inadequate, as it is distant from the archetype and pattern he refers it to, and intends to express and signify by the name he uses for it; which name he would have to be a sign of the other man's idea (to which, in its proper use, it is primarily annexed) and of his own, as agreeing to it: to which, if his own does not exactly correspond, it is faulty and inadequate.

§ 5.

Therefore these complex ideas of modes, when they are referred by the mind, and intended to correspond to the ideas in the mind of some other intelligent being, expressed by the names we apply to them, they may be very deficient, wrong, and inadequate; because they agree not to that, which the mind designs to be their archetype and pattern: in which respect only, any idea of modes can be wrong, imperfect, or inadequate. And on this account our ideas of mixed modes are the most liable to be faulty of any other; but this refers more to proper speaking, than knowing right.

§ 6. *Ideas of substances, as referred to real essences, not adequate.*

Thirdly, what ideas we have of substances, I have above showed. Now those ideas have in the mind a double reference: 1. Sometimes they are referred to a supposed real essence of each species of things. 2. Sometimes they are only designed to be pictures and representations in the mind of things that do exist by ideas of those qualities that are discoverable in them. In both which ways, these copies of those originals and archetypes are imperfect and inadequate.

First, it is usual for men to make the names of substances stand for things, as supposed to have certain real essences, whereby they are of this or that species: and names standing for nothing but the ideas that are in men's minds, they must constantly refer their ideas to such real essences, as to their ar-

chetypes. That men (especially such as have been bred up in the learning taught in this part of the world) do suppose certain specific essences of substances, which each individual, in its several kinds, is made conformable to, and partakes of; is so far from needing proof, that it will be thought strange if any one should do otherwise. And thus they ordinarily apply the specific names they rank particular substances under to things, as distinguished by such specific real essences. Who is there almost, who would not take it amiss, if it should be doubted, whether he called himself a man, with any other meaning, than as having the real essence of a man? And yet if you demand what those real essences are, it is plain men are ignorant, and know them not. From whence it follows, that the ideas they have in their minds, being referred to real essences, as to archetypes which are unknown, must be so far from being adequate, that they cannot be supposed to be any representation of them at all. The complex ideas we have of substances are, as it has been shown, certain collections of simple ideas that have been observed or supposed constantly to exist together. But such a complex idea cannot be the real essence of any substance; for then the properties we discover in that body would depend on that complex idea, and be deducible from it, and their necessary connection with it be known; as all properties of a triangle depend on, and, as far as they are discoverable, are deducible from the complex idea of three lines, including a space. But it is plain, that in our complex ideas of substances are not contained such ideas, on which all the other qualities, that are to be found in them, do depend. The common idea men have of iron, is a body of a certain colour, weight and hardness; and a property that they look on as belonging to it, is malleableness. But yet this property has no necessary connection with that complex idea, or any part of it; and there is no more reason to think that

malleableness depends on that colour, weight, and hardness, than that colour or that weight depends on its malleableness. And yet, though we know nothing of these real essences, there is nothing more ordinary, than that men should attribute the sorts of things to such essences. The particular parcel of matter, which makes the ring I have on my finger, is forwardly, by most men, supposed to have a real essence, whereby it is gold; and from whence those qualities flow, which I find in it, viz. its peculiar colour, weight, hardness, fusibility, fixedness, and change of colour upon a slight touch of mercury, &c. This essence, from which all these properties flow, when I inquire into it and search after it, I plainly perceive I cannot discover: the farthest I can go is only to presume, that it being nothing but body, its real essence, or internal constitution, on which these qualities depend, can be nothing but the figure, size, and connection of its solid parts; of neither of which having any distinct perception at all, can I have any idea of its essence, which is the cause that it has that particular shining yellowness, a greater weight than any thing I know of the same bulk, and a fitness to have its colour changed by the touch of quicksilver. If any one will say, that the real essence and internal constitution, on which these properties depend, is not the figure, size, and arrangement or connexion of its solid parts, but something else, called its particular form; I am farther from having any idea of its real essence, than I was before: for I have an idea of figure, size, and situation of solid parts in general, though I have none of the particular figure, size, or putting together of parts, whereby the qualities above-mentioned are produced; which qualities I find in that particular parcel of matter that is on my finger, and not in another parcel of matter, with which I cut the pen I write with. But when I am told, that something besides the figure, size, and posture of the solid parts of that body, is its essence,

something called substantial form ; of that, I confess, I have no idea at all, but only of the sound form, which is far enough from an idea of its real essence, or constitution. The like ignorance as I have of the real essence of this particular substance, I have also of the real essence of all other natural ones : of which essences, I confess, I have no distinct ideas at all ; and I am apt to suppose others, when they examine their own knowledge, will find in themselves, in this one point, the same sort of ignorance.

§ 7.

Now then, when men apply to this particular parcel of matter on my finger, a general name already in use, and denominate it gold, do they not ordinarily, or are they not understood to give it that name as belonging to a particular species of bodies, having a real internal essence ; by having of which essence, this particular substance comes to be of that species, and to be called by that name ? If it be so, as it is plain it is, the name, by which things are marked, as having that essence, must be referred primarily to that essence ; and consequently the idea to which that name is given, must be referred also to that essence, and be intended to represent it. Which essence, since they, who so use the names, know not, their ideas of substances must be all inadequate in that respect, as not containing in them that real essence which the mind intends they should.

§ 8. *Ideas of substances, as collections of their qualities, are all inadequate.*

Secondly, those who neglecting that useless supposition of unknown real essences, whereby they are distinguished, endeavour to copy the substances that exist in the world, by putting together the ideas of those sensible qualities which are found co-existing in them, though they come much nearer a likeness of them, than those who imagine they know not what real specific essences ; yet they arrive not at perfectly adequate ideas of those substances they would

thus copy into their minds ; nor do those copies exactly and fully contain all that is to be found in their archetypes. Because those qualities, and powers of substances, whereof we make their complex ideas, are so many and various, that no man's complex idea contains them all. That our abstract ideas of substances do not contain in them all the simple ideas that are united in the things themselves, it is evident, in that men do rarely put into their complex idea of any substance, all the simple ideas they do know to exist in it. Because endeavouring to make the signification of their names as clear, and as little cumbersome as they can, they make their specific ideas of the sorts of substance, for the most part, of a few of those simple ideas which are to be found in them : but these having no original precedency, or right to be put in, and make the specific idea more than others that are left out, it is plain that both these ways our ideas of substances are deficient and inadequate. The simple ideas, whereof we make our complex ones of substances, are all of them (bating only the figure and bulk of some sorts) powers, which being relations to other substances, we can never be sure that we know all the powers that are in any one body, till we have tried what changes it is fitted to give to, or receive from other substances in their several ways of application : which being impossible to be tried upon any one body, much less upon all, it is impossible we should have adequate ideas of any substance, made up of a collection of all its properties.

§ 9.

Whosoever first lighted on a parcel of that sort of substance we denote by the word gold, could not rationally take the bulk and figure he observed in that lump to depend on its real essence or internal constitution. Therefore those never went into his idea of that species of body ; but its peculiar colour, perhaps, and weight, were the first he abstracted from

it, to make the complex idea of that species. Which both are but powers; the one to affect our eyes after such a manner, and to produce in us that idea we call yellow; and the other to force upwards any other body of equal bulk; they being put into a pair of equal scales, one against another. Another perhaps added to these the ideas of fusibility and fixedness, two other passive powers, in relation to the operation of fire upon it; another, its ductility and solubility in aq. regia, two other powers relating to the operation of other bodies, in changing its outward figure, or separation of it into insensible parts. These, or part of these, put together, usually make the complex idea in men's minds of that sort of body we call gold.

§ 10.

But no one, who hath considered the properties of bodies in general, or this sort in particular, can doubt that this called gold has infinite other properties not contained in that complex idea. Some who have examined this species more accurately, could, I believe, enumerate ten times as many properties in gold, all of them as inseparable from its internal constitution, as its colour or weight: and it is probable, if any one knew all the properties that are by divers men known of this metal, there would be an hundred times as many ideas go to the complex idea of gold, as any one man yet has in his; and yet perhaps that not be the thousandth part of what is to be discovered in it. The changes which that one body is apt to receive, and make in other bodies, upon a due application, exceeding far not only what we know, but what we are apt to imagine. Which will not appear so much a paradox to any one, who will but consider how far men are yet from knowing all the properties of that one, no very compound figure, a triangle; though it be no small number that are already by mathematicians discovered of it.

§ 11. *Ideas of substances, as collections of their qualities, are all inadequate.*

So that all our complex ideas of substances are imperfect and inadequate. Which would be so also in mathematical figures, if we were to have our complex ideas of them, only by collecting their properties in reference to other figures. How uncertain and imperfect would our ideas be of an ellipsis, if we had no other idea of it, but some few of its properties? Whereas having in our plain idea the whole essence of that figure, we from thence discover those properties, and demonstratively see how they flow, and are inseparable from it.

§ 12. *Simple ideas, ἡκλιυπα, and adequate.*

Thus the mind has three sorts of abstract ideas or nominal essences :

First, simple ideas, which are ἡκλιυπα, or copies; but yet certainly adequate. Because being intended to express nothing but the power in things to produce in the mind such a sensation, that sensation, when it is produced, cannot but be the effect of that power. So the paper I write on, having the power, in the light (I speak according to the common notion of light) to produce in men the sensation which I call white, it cannot but be the effect of such a power, in something without the mind; since the mind has not the power to produce any such idea in itself, and being meant for nothing else but the effect of such a power, that simple idea is real and adequate; the sensation of white, in my mind, being the effect of that power, which is in the paper to produce it, is perfectly adequate to that power; or else, that power would produce a different idea.

§ 13. *Ideas of substances are ἡκλιυπα, inadequate.*

Secondly, the complex ideas of substances are ectypes, copies too; but not perfect ones, not adequate: which is very evident to the mind, in that it plainly perceives that whatever collection of simple ideas it makes of any substance that exists, it cannot

be sure that it exactly answers all that are in that substance : since not having tried all the operations of all other substances upon it, and found all the alterations it would receive from, or cause in, other substances, it cannot have an exact adequate collection of all its active and passive capacities ; and so not have an adequate complex idea of the powers of any substance existing, and its relations, which is that sort of complex idea of substances we have. And after all, if we would have, and actually had, in our complex idea, an exact collection of all the secondary qualities or powers of any substance, we should not yet thereby have an idea of the essence of that thing. For since the powers or qualities that are observable by us, are not the real essence of that substance, but depend on it, and flow from it, any collection whatsoever of these qualities cannot be the real essence of that thing. Whereby it is plain, that our ideas of substances are not adequate ; are not what the mind intends them to be. Besides, a man has no idea of substance in general, nor knows what substance is in itself.

§ 14. *Ideas of modes and relations are archetypes, and cannot but be adequate.*

Thirdly, complex ideas of modes and relations are originals, and archetypes ; are not copies, nor made after the pattern of any real existence, to which the mind intends them to be conformable, and exactly to answer. These being such collections of simple ideas, that the mind itself puts together, and such collections, that each of them contains in it precisely all that the mind intends that it should, they are archetypes and essences of modes that may exist ; and so are designed only for, and belong only to, such modes as, when they do exist, have an exact conformity with those complex ideas. The ideas therefore of modes and relations cannot but be adequate.

CHAP. XXXIII.

OF TRUE AND FALSE IDEAS.

§ 1. *Truth and falsehood properly belong to propositions.*

THOUGH truth and falsehood belong, in propriety of speech, only to propositions; yet ideas are oftentimes termed true or false (as what words are there, that are not used with great latitude, and with some deviation from their strict and proper significations?) Though, I think, that when ideas themselves are termed true or false, there is still some secret or tacit proposition, which is the foundation of that denomination: as we shall see, if we examine the particular occasions wherein they come to be called true or false. In all which, we shall find some kind of affirmation or negation, which is the reason of that denomination. For our ideas, being nothing but bare appearances or perceptions in our minds, cannot properly and simply in themselves be said to be true or false, no more than a single name of any thing can be said to be true or false.

§ 2. *Metaphysical truth contains a tacit proposition.*

Indeed both ideas and words may be said to be true in a metaphysical sense of the word truth, as all other things, that any way exist, are said to be true; *i. e.* really to be such as they exist. Though in things called true, even in that sense, there is perhaps a secret reference to our ideas, looked upon as the standards of that truth, which amounts to a mental proposition, though it be usually not taken notice of.

§ 3. *No idea, as an appearance in the mind, true or false.*

But it is not in that metaphysical sense of truth which we inquire here, when we examine whether

our ideas are capable of being true or false ; but in the more ordinary acceptation of those words : and so I say, that the ideas in our minds being only so many perceptions, or appearances there, none of them are false : the idea of a centaur having no more falsehood in it, when it appears in our minds, than the name centaur has falsehood in it, when it is pronounced by our mouths, or written on paper. For truth or falsehood lying always in some affirmation, or negation, mental or verbal, our ideas are not capable, any of them, of being false, till the mind passes some judgment on them ; that is, affirms or denies something of them.

§ 4. *Ideas referred to any thing may be true or false.*

Whenever the mind refers any of its ideas to any thing extraneous to them, they are then capable to be called true or false. Because the mind in such a reference makes a tacit supposition of their conformity to that thing : which supposition, as it happens to be true or false, so the ideas themselves come to be denominated. The most usual cases wherein this happens, are these following :

§ 5. *Other men's ideas, real existence, and supposed real essences, are what men usually refer their ideas to.*

First, when the mind supposes any idea it has conformable to that in other men's minds, called by the same common name ; *v. g.* when the mind intends or judges its ideas of justice, temperance, religion, to be the same with what other men give those names to.

Secondly, when the mind supposes any idea it has in itself to be conformable to some real existence. Thus the two ideas, of a man and a centaur, supposed to be the ideas of real substances, are the one true, and the other false ; the one having a conformity to what has really existed, the other not.

Thirdly, when the mind refers any of its ideas to that real constitution and essence of any thing, whereon all its properties depend : and thus the

greatest part, if not all our ideas of substances, are false.

§ 6. *The cause of such references.*

These suppositions the mind is very apt tacitly to make concerning its own ideas. But yet, if we will examine it, we shall find it is chiefly, if not only, concerning its abstract complex ideas. For the natural tendency of the mind being towards knowledge; and finding that if it should proceed by and dwell upon only particular things, its progress would be very slow, and its work endless; therefore to shorten its way to knowledge, and make each perception more comprehensive; the first thing it does, as the foundation of the easier enlarging its knowledge, either by contemplation of the things themselves that it would know, or conference with others about them, is to bind them into bundles, and rank them so into sorts, that what knowledge it gets of any of them, it may thereby with assurance extend to all of that sort; and so advance by larger steps in that, which is its great business, knowledge. This, as I have elsewhere shown, is the reason why we collect things under comprehensive ideas, with names annexed to them, into genera and species, *i. e.* into kinds and sorts.

§ 7.

If therefore we will warily attend to the motions of the mind, and observe what course it usually takes in its way to knowledge; we shall, I think, find that the mind having got an idea, which it thinks it may have use of, either in contemplation or discourse, the first thing it does is to abstract it, and then get a name to it; and so lay it up in its store-house, the memory, as containing the essence of a sort of things, of which that name is always to be the mark. Hence it is that we may often observe, that when any one sees a new thing of a kind that he knows not, he presently asks what it is, meaning by that inquiry nothing but the name. As if the name carried with it

the knowledge of the species, or the essence of it ; whereof it is indeed used as the mark, and is generally supposed annexed to it.

§ 8. *Cause of such references.*

But this abstract idea being something in the mind between the thing that exists, and the name that is given to it ; it is in our ideas, that both the rightness of our knowledge, or the propriety or intelligibleness of our speaking, consists. And hence it is, that men are so forward to suppose, that the abstract ideas they have in their minds are such as agree to the things existing without them, to which they are referred ; and are the same also, to which the names they give them do by the use and propriety of that language belong. For without this double conformity of their ideas, they find they should both think amiss of things in themselves, and talk of them unintelligibly to others.

§ 9. *Simple ideas may be false in reference to others of the same name, but are least liable to be so.*

First then, I say, that when the truth of our ideas is judged of, by the conformity they have to the ideas which other men have, and commonly signify by the same name, they may be any of them false. But yet simple ideas are least of all liable to be so mistaken ; because a man by his senses, and every day's observation, may easily satisfy himself what the simple ideas are, which their several names that are in common use stand for : they being but few in number, and such as if he doubts or mistakes in, he may easily rectify by the objects they are to be found in. Therefore it is seldom, that any one mistakes in his names of simple ideas ; or applies the name red to the idea green ; or the name sweet to the idea bitter : much less are men apt to confound the names of ideas belonging to different senses ; and call a colour by the name of a taste, &c. whereby it is evident, that the simple ideas they call by any name, are commonly the same that others have and mean when they use the same names.

§ 10. *Ideas of mixed modes most liable to be false in this sense.*

Complex ideas are much more liable to be false in this respect: and the complex ideas of mixed modes, much more than those of substances: because in substances (especially those which the common and unborrowed names of any language are applied to) some remarkable sensible qualities, serving ordinarily to distinguish one sort from another, easily preserve those, who take any care in the use of their words, from applying them to sorts of substances, to which they do not at all belong. But in mixed modes we are much more uncertain; it being not so easy to determine of several actions, whether they are to be called justice or cruelty, liberality or prodigality. And so in referring our ideas to those of other men, called by the same names, ours may be false; and the idea in our minds, which we express by the word justice, may perhaps be that which ought to have another name.

§ 11. *Or at least to be thought false.*

But whether or no our ideas of mixed modes are more liable than any sort to be different from those of other men, which are marked by the same names; this at least is certain, that this sort of falsehood is much more familiarly attributed to our ideas of mixed modes, than to any other. When a man is thought to have a false idea of justice, or gratitude, or glory, it is for no other reason, but that his agrees not with the ideas which each of those names are the signs of in other men.

§ 12. *And why.*

The reason whereof seems to me to be this, that the abstract ideas of mixed modes, being men's voluntary combinations of such a precise collection of simple ideas; and so the essence of each species being made by men alone, whereof we have no other sensible standard existing any where, but the name itself, or the definition of that name: we have nothing

else to refer these our ideas of mixed modes to, as a standard to which we would conform them, but the ideas of those who are thought to use those names in their most proper significations; and so as our ideas conform or differ from them, they pass for true or false. And thus much concerning the truth and falsehood of our ideas, in reference to their names.

§ 13. *As referred to real existences, none of our ideas can be false, but those of substances.*

Secondly, as to the truth and falsehood of our ideas, in reference to the real existence of things; when that is made the standard of their truth, none of them can be termed false, but only our complex ideas of substances.

§ 14. *First, simple ideas in this sense not false, and why.*

First, our simple ideas being barely such perceptions as God has fitted us to receive, and given power to external objects to produce in us by established laws and ways, suitable to his wisdom and goodness, though incomprehensible to us, their truth consists in nothing else but in such appearances as are produced in us, and must be suitable to those powers he has placed in external objects, or else they could not be produced in us: and thus answering those powers, they are what they should be, true ideas. Nor do they become liable to any imputation of falsehood, if the mind (as in most men I believe it does) judges these ideas to be in the things themselves. For God, in his wisdom, having set them as marks of distinction in things, whereby we may be able to discern one thing from another, and so choose any of them for our uses, as we have occasion; it alters not the nature of our simple idea, whether we think that the idea of blue be in the violet itself, or in our mind only; and only the power of producing it by the texture of its parts, reflecting the particles of light after a certain manner, to be in the violet itself.

For that texture in the object, by a regular and constant operation, producing the same idea of blue in us, it serves us to distinguish, by our eyes, that from any other thing, whether that distinguishing mark, as it is really in the violet, be only a peculiar texture of parts, or else that very colour, the idea whereof (which is in us) is the exact resemblance. And it is equally from that appearance to be denominated blue, whether it be that real colour, or only a peculiar texture in it, that causes in us that idea: since the name blue notes properly nothing but that mark of distinction that is in a violet, discernible only by our eyes, whatever it consists in; that being beyond our capacities distinctly to know, and perhaps would be of less use to us, if we had faculties to discern.

§ 15. *Though one man's idea of blue should be different from another's.*

Neither would it carry any imputation of falsehood to our simple ideas, if by the different structure of our organs it were so ordered, that the same object should produce in several men's minds different ideas at the same time; *v. g.* if the idea that a violet produced in one man's mind by his eyes were the same that a marygold produced in another man's, and vice versa. For since this could never be known, because one man's mind could not pass into another man's body, to perceive what appearances were produced by those organs; neither the ideas hereby, nor the names would be at all confounded, or any falsehood be in either. For all things that had the texture of a violet, producing constantly the idea that he called blue; and those which had the texture of a marygold, producing constantly the idea which he as constantly called yellow; whatever those appearances were in his mind, he would be able as regularly to distinguish things for his use by those appearances, and understand and signify those distinctions marked by the names blue and yellow, as if

the appearances, or ideas in his mind, received from those two flowers, were exactly the same with the ideas in other men's minds. I am nevertheless very apt to think, that the sensible ideas produced by any object in different men's minds, are most commonly very near and undiscernibly alike. For which opinion, I think, there might be many reasons offered: but that being besides my present business, I shall not trouble my reader with them: but only mind him, that the contrary supposition, if it could be proved, is of little use, either for the improvement of our knowledge, or conveniency of life; and so we need not trouble ourselves to examine it.

§ 16. *First, simple ideas in this sense not false, and why.*

From what has been said concerning our simple ideas, I think it evident, that our simple ideas can none of them be false in respect of things existing without us. For the truth of these appearances, or perceptions in our minds, consisting, as has been said, only in their being answerable to the powers in external objects to produce by our senses such appearances in us; and each of them being in the mind, such as it is, suitable to the power that produced it, and which alone it represents; it cannot upon that account, or as referred to such a pattern, be false. Blue and yellow, bitter or sweet, can never be false ideas: these perceptions in the mind are just such as they are there, answering the powers appointed by God to produce them; and so are truly what they are and are intended to be. Indeed the names may be misapplied: but that in this respect makes no falsehood in the ideas; as if a man ignorant in the English tongue should call purple scarlet.

§ 17. *Secondly, modes not false.*

Secondly, neither can our complex ideas of modes, in reference to the essence of any thing really existing, be false. Because whatever complex idea I have of any mode, it hath no reference to any pattern ex-

isting, and made by nature: it is not supposed to contain in it any other ideas than what it hath; nor to represent any thing but such a complication of ideas as it does. Thus when I have the idea of such an action of a man, who forbears to afford himself such meat, drink, and clothing, and other conveniences of life, as his riches and estate will be sufficient to supply, and his station requires, I have no false idea; but such an one as represents an action, either as I find or imagine it; and so is capable of neither truth or falsehood. But when I give the name frugality or virtue to this action, then it may be called a false idea, if thereby it be supposed to agree with that idea, to which, in propriety of speech, the name of frugality doth belong; or to be conformable to that law, which is the standard of virtue and vice.

§ 18. *Thirdly, ideas of substances when false.*

Thirdly, our complex ideas of substances, being all referred to patterns in things themselves, may be false. That they are all false, when looked upon as the representations of the unknown essences of things, is so evident, that there needs nothing to be said of it. I shall therefore pass over that chimerical supposition, and consider them as collections of simple ideas in the mind taken from combinations of simple ideas existing together constantly in things, of which patterns they are the supposed copies: and in this reference of them to the existence of things, they are false ideas. 1. When they put together simple ideas, which in the real existence of things have no union; as when to the shape and size that exist together in a horse is joined, in the same complex idea, the power of barking like a dog: which three ideas, however put together into one in the mind, were never united in nature; and this therefore may be called a false idea of an horse. 2. Ideas of substances are, in this respect, also false, when from any collection of simple ideas. that do always

exist together, there is separated, by a direct negation, any other simple idea which is constantly joined with them. Thus, if to extension, solidity, fusibility, the peculiar weightiness, and yellow colour of gold, any one join in his thoughts the negation of a greater degree of fixedness than is in lead or copper, he may be said to have a false complex idea, as well as when he joins to those other simple ones the idea of a perfect absolute fixedness. For either way, the complex idea of gold being made up of such simple ones as have no union in nature, may be termed false. But if we leave out of this his complex idea, that of fixedness quite, without either actually joining to, or separating of it from the rest in his mind, it is, I think, to be looked on as an inadequate and imperfect idea, rather than a false one; since though it contains not all the simple ideas that are united in nature, yet it puts none together but what do really exist together.

§ 19. *Truth or falsehood always supposes affirmation or negation.*

Though in compliance with the ordinary way of speaking, I have showed in what sense, and upon what ground our ideas may be sometimes called true or false; yet if we will look a little nearer into the matter, in all cases where any idea is called true or false, it is from some judgment that the mind makes, or is supposed to make, that is true or false. For truth or falsehood, being never without some affirmation or negation, express or tacit, it is not to be found but where signs are joined and separated according to the agreement or disagreement of the things they stand for. The signs we chiefly use are either ideas or words, wherewith we make either mental or verbal propositions. Truth lies in so joining or separating these representatives, as the things they stand for do in themselves agree or disagree; and falsehood in the contrary, as shall be more fully shown hereafter.

§ 20. *Ideas in themselves neither true nor false.*

Any idea then which we have in our minds, whether conformable or not to the existence of things, or to any idea in the minds of other men, cannot properly for this alone be called false. For these representations, if they have nothing in them but what is really existing in things without, cannot be thought false, being exact representations of something: nor yet, if they have any thing in them differing from the reality of things, can they properly be said to be false representations, or ideas of things they do not represent. But the mistake and falsehood is,

§ 21. *But are false, 1. When judged agreeable to another man's idea, without being so.*

First, when the mind having any idea, it judges and concludes it the same that is in other men's minds, signified by the same name; or that it is conformable to the ordinary received signification or definition of that word, when indeed it is not; which is the most usual mistake in mixed modes, though other ideas also are liable to it.

§ 22.—2. *When judged to agree to real existence, when they do not.*

Secondly, when it having a complex idea made up of such a collection of simple ones as nature never puts together, it judges it to agree to a species of creatures really existing; as when it joins the fixedness of gold.

§ 23.—3. *When judged adequate, without being so.*

Thirdly, when in its complex idea it has united a certain number of simple ideas that do really exist together in some sort of creatures, but has also left out others as much inseparable, it judges this to be a perfect complete idea of a sort of things which really it is not; *v. g.* having joined the ideas of substance, yellow, malleable, most heavy, and fusible, it takes that complex idea to be the complete idea of gold, when yet its peculiar fixedness and solubility in aqua regia are as inseparable from those other ideas

or qualities of that body, as they are from one another.

§ 24.—4. *When judged to represent the real essence.*

Fourthly, the mistake is yet greater, when I judge, that this complex idea contains in it the real essence of any body existing, when at least it contains but some few of those properties which flow from its real essence and constitution. I say, only some few of those properties; for those properties consisting mostly in the active and passive powers it has, in reference to other things, all that are vulgarly known of any one body of which the complex idea of that kind of things is usually made, are but a very few, in comparison of what a man, that has several ways tried and examined it, knows of that one sort of things: and all that the most expert man knows are but a few, in comparison of what are really in that body, and depend on its internal or essential constitution. The essence of a triangle lies in a very little compass, consists in a very few ideas: three lines including a space make up that essence: but the properties that flow from this essence are more than can be easily known or enumerated. So I imagine it is in substances, their real essences lie in a little compass, though the properties flowing from that internal constitution are endless.

§ 25. *Ideas, when false.*

To conclude, a man having no notion of any thing without him, but by the idea he has of it in his mind (which idea he has a power to call by what name he pleases) he may indeed make an idea neither answering the reason of things, nor agreeing to the idea commonly signified by other people's words; but cannot make a wrong or false idea of a thing, which is no otherwise known to him but by the idea he has of it: *v. g.* when I frame an idea of the legs, arms, and body of a man, and join to this a horse's head and neck, I do not make a false idea of any thing; because it represents nothing without me. But when

I call it a man or Tartar, and imagine it to represent some real being without me, or to be the same idea that others call by the same name; in either of these cases I may err. And upon this account it is, that it comes to be termed a false idea; though indeed the falsehood lies not in the idea, but in that tacit mental proposition, wherein a conformity and resemblance is attributed to it, which it has not. But yet, if having framed such an idea in my mind, without thinking either that existence, or the name man or Tartar, belongs to it, I will call it man or Tartar, I may be justly thought fantastical in the naming, but not erroneous in my judgment; nor the idea any way false.

§ 26. *More properly to be called right or wrong.*

Upon the whole matter, I think, that our ideas, as they are considered by the mind, either in reference to the proper signification of their names, or in reference to the reality of things, may very fitly be called right or wrong ideas, according as they agree or disagree to those patterns to which they are referred. But if any one had rather call them true or false, it is fit he use a liberty, which every one has, to call things by those names he thinks best; though, in propriety of speech, truth or falsehood will, I think, scarce agree to them, but as they, some way or other, virtually contain in them some mental proposition. The ideas that are in a man's mind, simply considered, cannot be wrong, unless complex ones, wherein inconsistent parts are jumbled together. All other ideas are in themselves right, and the knowledge about them right and true knowledge: but when we come to refer them to any thing, as to their patterns and archetypes, then they are capable of being wrong, as far as they disagree with such archetypes.

CHAP. XXXIII.

OF THE ASSOCIATION OF IDEAS.

§ 1. *Something unreasonable in most men.*

THERE is scarce any one that does not observe something that seems odd to him, and is in it itself really extravagant in the opinions, reasonings, and actions of other men. The least flaw of this kind, if at all different from his own, every one is quick-sighted enough to espy in another, and will by the authority of reason forwardly condemn, though he be guilty of much greater unreasonableness in his own tenets and conduct, which he never perceives, and will very hardly, if at all, be convinced of.

§ 2. *Not wholly from self love.*

This proceeds not wholly from self love, though that has often a great hand in it. Men of fair minds, and not given up to the over-weening of self flattery, are frequently guilty of it; and in many cases one with amazement hears the arguings, and is astonished at the obstinacy of a worthy man, who yields not to the evidence of reason, though laid before him as clear as day-light.

§ 3. *Not from education.*

This sort of unreasonableness is usually imputed to education and prejudice, and for the most part truly enough, though that reaches not the bottom of the disease, nor shows distinctly enough whence it rises, or wherein it lies. Education is often rightly assigned for the cause, and prejudice is a good general name for the thing itself: but yet, I think, he ought to look a little farther, who would trace this sort of madness to the root it springs from, and so

explain it, as to show whence this flaw has its original in very sober and rational minds, and wherein it consists.

§ 4. *A degree of madness.*

I shall be pardoned for calling it by so harsh a name as madness, when it is considered that opposition to reason deserves that name, and is really madness; and there is scarce a man so free from it, but that if he should always, on all occasions, argue or do as in some cases he constantly does, would not be thought fitter for Bedlam than civil conversation. I do not here mean when he is under the power of an unruly passion, but in the steady calm course of his life. That which will yet more apologize for this harsh name, and ungrateful imputation on the greatest part of mankind, is, that inquiring a little by the by into the nature of madness, b. ii. c. xi. § 13. I found it to spring from the very same root, and to depend on the very same cause we are here speaking of. This consideration of the thing itself, at a time when I thought not the least on the subject which I am now treating of, suggested it to me. And if this be a weakness to which all men are so liable; if this be a taint which so universally infects mankind; the greater care should be taken to lay it open under its due name, thereby to excite the greater care in its prevention and cure.

§ 5. *From a wrong connexion of ideas.*

Some of our ideas have a natural correspondence and connexion one with another; it is the office and excellency of our reason to trace these, and hold them together in that union and correspondence which is founded in their peculiar beings. Besides this, there is another connexion of ideas wholly owing to chance or custom: ideas that in themselves are not all of kin, come to be so united in some men's minds, that it is very hard to separate them; they always keep in company, and the one no sooner at any time comes into the understanding, but its associate appears with it:

and if they are more than two, which are thus united, the whole gang, always inseparable, show themselves together.

§ 6. *This connexion how made.*

This strong combination of ideas, not allied by nature; the mind makes in itself either voluntary or by chance; and hence it comes in different men to be very different, according to their different inclinations, education, interests, &c. Custom settles habits of thinking in the understanding, as well as of determining in the will, and of motions in the body; all which seems to be but trains of motion in the animal spirits, which once set a-going, continue in the same steps they have been used to: which, by often treading, are worn into a smooth path, and the motion in it becomes easy, and as it were natural. As far as we can comprehend thinking, thus ideas seem to be produced in our minds; or if they are not, this may serve to explain their following one another in an habitual train, when once they are put into their track, as well as it does to explain such motions of the body. A musician used to any tune will find, that let it but once begin in his head, the ideas of the several notes of it will follow one another orderly in his understanding, without any care or attention, as regularly as his fingers move orderly over the keys of the organ to play out the tune he has begun, though his unattentive thoughts be elsewhere a wandering. Whether the natural cause of these ideas, as well as of that regular dancing of his fingers, be the motion of his animal spirits, I will not determine, how probable soever, by this instance, it appears to be so: but this may help us a little to conceive of intellectual habits, and of the tying together of ideas.

§ 7. *Some antipathies an effect of it.*

That there are such associations of them made by custom in the minds of most men, I think nobody will question, who has well considered himself or others;

and to this, perhaps, might be justly attributed most of the sympathies and antipathies observable in men, which work as strongly, and produce as regular effects as if they were natural; and are therefore called so, though they at first had no other original but the accidental connexion of two ideas, which either, the strength of the first impression, or future indulgence so united, that they always afterwards kept company together in that man's mind, as if they were but one idea. I say most of the antipathies, I do not say all, for some of them are truly natural, depend upon our original constitution, and are born with us; but a great part of those which are counted natural, would have been known to be from unheeded, though, perhaps, early impressions, or wanton fancies at first, which would have been acknowledged the original of them, if they had been warily observed. A grown person surfeiting with honey, no sooner hears the name of it, but his fancy immediately carries sickness and qualms to his stomach, and he cannot bear the very idea of it; other ideas of dislike, and sickness, and vomiting, presently accompany it, and he is disturbed, but he knows from whence to date this weakness, and can tell how he got this indisposition. Had this happened to him by an over-dose of honey, when a child, all the same effects would have followed, but the cause would have been mistaken, and the antipathy counted natural.

§ 8.

I mention this not out of any great necessity there is, in this present argument, to distinguish nicely between natural and acquired antipathies; but I take notice of it for another purpose, viz. that those who have children, or the charge of their education, would think it worth their while diligently to watch, and carefully to prevent the undue connexion of ideas in the minds of young people. This is the time most susceptible of lasting impressions: and though those relating to the health of the body are by discreet

people minded and fenced against, yet I am apt to doubt, that those which relate more peculiarly to the mind, and terminate in the understanding or passions, have been much less heeded than the thing deserves: nay, those relating purely to the understanding have, as I suspect, been by most men wholly overlooked.

§ 9. *A great cause of errors.*

This wrong connection in our minds of ideas in themselves loose and independent of one another, has such an influence, and is of so great force to set us awry in our actions, as well moral as natural, passions, reasonings and notions themselves, that perhaps there is not any one thing that deserves more to be looked after.

§ 10. *Instances.*

The ideas of goblins and sprights have really no more to do with darkness than light; yet let but a foolish maid inculcate these often on the mind of a child, and raise them there together, possibly he shall never be able to separate them again so long as he lives: but darkness shall ever afterwards bring with it those frightful ideas, and they shall be so joined, that he can no more bear the one than the other.

§ 11.

A man receives a sensible injury from another, thinks on the man and that action, over and over; and by ruminating on them strongly, or much in his mind, so cements those two ideas together, that he makes them almost one: never thinks on the man, but the pain and displeasure he suffered comes into his mind with it, so that he scarce distinguishes them, but has as much an aversion for the one as the other. Thus hatreds are often begotten from slight and innocent occasions, and quarrels propagated and continued in the world.

§ 12.

A man has suffered pain or sickness in any place; he saw his friend die in such a room; though these

have in nature nothing to do one with another, yet when the idea of the place occurs to his mind, it brings (the impression being once made) that of the pain and displeasure with it; he confounds them in his mind, and can as little bear the one as the other.

§ 13. *Why time cures some disorders in the mind, which reason cannot.*

When this combination is settled, and while it lasts, it is not in the power of reason to help us, and relieve us from the effects of it. Ideas in our minds, when they are there, will operate according to their natures and circumstances; and here we see the cause why time cures certain affections, which reason, though in the right, and allowed to be so, has not power over, nor is able against them to prevail with those who are apt to hearken to it in other cases. The death of a child, that was the daily delight of his mother's eyes, and joy of her soul, rends from her heart the whole comfort of her life, and gives her all the torment imaginable: use the consolations of reason in this case, and you were as good preach ease to one on the rack, and hope to allay, by rational discourses, the pain of his joints tearing asunder. Till time has by disuse separated the sense of that enjoyment, and its loss, from the idea of the child returning to her memory, all representations, though ever so reasonable, are in vain; and therefore some in whom the union between these ideas is never dissolved, spend their lives in mourning, and carry an incurable sorrow to their graves.

§ 14. *Farther instances of the effect of the association of ideas.*

A friend of mine knew one perfectly cured of madness by a very harsh and offensive operation. The gentleman who was thus recovered, with great sense of gratitude and acknowledgment, owned the cure all his life after, as the greatest obligation he could have received; but whatever gratitude and reason suggested to him, he could never bear the sight of

the operator: that image brought back with it the idea of that agony which he suffered from his hands, which was too mighty and intolerable for him to endure.

§ 15.

Many children imputing the pain they endured at school to their books they were corrected for, so join those ideas together, that a book becomes their aversion, and they are never reconciled to the study and use of them all their lives after: and thus reading becomes a torment to them, which otherwise possibly they might have made the great pleasure of their lives. There are rooms convenient enough, that some men cannot study in, and fashions of vessels, which though ever so clean and commodious, they cannot drink out of, and that by reason of some accidental ideas which are annexed to them, and make them offensive; and who is there that hath not observed some man to flag at the appearance, or in the company of some certain person not otherwise superiour to him, but because having once on some occasion got the ascendant, the idea of authority and distance goes along with that of the person, and he that has been thus subjected, is not able to separate them?

§ 16.

Instances of this kind are so plentiful every where, that if I add one more, it is only for the pleasant oddness of it. It is of a young gentleman, who having learnt to dance, and that to great perfection, there happened to stand an old trunk in the room where he learnt. The idea of this remarkable piece of household-stuff had so mixed itself with the turns and steps of all his dances, that though in that chamber he could dance excellently well, yet it was only whilst that trunk was there; nor could he perform well in any other place, unless that or some such other trunk had its due position in the room. If this story shall be suspected to be dressed up with some comical cir-

cumstances a little beyond precise nature; I answer for myself that I had it some years since from a very sober and worthy man, upon his own knowledge, as I report it: and I dare say, there are very few inquisitive persons, who read this, who have not met with accounts, if not examples of this nature, that may parallel, or at least justify this.

§ 17. *Its influence on intellectual habits.*

Intellectual habits and defects this way contracted, are not less frequent and powerful, though less observed. Let the ideas of being and matter be strongly joined either by education or much thought, whilst these are still combined in the mind, what notions, what reasonings will there be about separate spirits? Let custom from the very childhood have joined figure and shape to the idea of God, and what absurdities will that mind be liable to about the Deity?

Let the idea of infallibility be inseparably joined to any person, and these two constantly together possess the mind; and then one body, in two places at once, shall unexamined be swallowed for a certain truth by an implicit faith, whenever that imagined infallible person dictates and demands assent without inquiry.

§ 18. *Observable in different sects.*

Some such wrong and unnatural combinations of ideas will be found to establish the irreconcilable opposition between different sects of philosophy and religion; for we cannot imagine every one of their followers to impose wilfully on himself, and knowingly refuse truth offered by plain reason. Interest, though it does a great deal in the case, yet cannot be thought to work whole societies of men to so universal a perverseness, as that every one of them to a man should knowingly maintain falsehood: some at least must be allowed to do what all pretend to, *i. e.* to pursue truth sincerely; and therefore there must be something that blinds their understandings, and makes them not see the falsehood of what they embrace for

real truth. That which thus captivates their reasons, and leads men of sincerity blindfold from common sense, will, when examined, be found to be what we are speaking of: some independent ideas, of no alliance to one another, are by education, custom, and the constant din of their party, so coupled in their minds, that they always appear there together; and they can no more separate them in their thoughts, than if there were but one idea, and they operate as if they were so. This gives sense to jargon, demonstration to absurdities, and consistency to nonsense, and is the foundation of the greatest, I had almost said of all the errors in the world; or if it does not reach so far, it is at least the most dangerous one, since so far as it obtains, it hinders men from seeing and examining. When two things in themselves disjoined, appear to the sight constantly united; if the eye sees these things riveted, which are loose, where will you begin to rectify the mistakes that follow in two ideas, that they have been accustomed so to join in their minds, as to substitute one for the other, and, as I am apt to think, often without perceiving it themselves? This, whilst they are under the deceit of it, makes them incapable of conviction, and they applaud themselves as zealous champions for truth, when indeed they are contending for error; and the confusion of two different ideas, which a customary connexion of them in their minds hath to them made in effect but one, fills their heads with false views, and their reasonings with false consequences.

§ 19. *Conclusion.*

Having thus given an account of the original, sorts, and extent of our ideas, with several other considerations, about these (I know not whether I may say) instruments or materials of our knowledge; the method I at first proposed to myself would now require, that I should immediately proceed to show what use the understanding makes of them, and what knowledge we have by them. This was that which, in

the first general view I had of this subject, was all that I thought I should have to do: but, upon a nearer approach, I find that there is so close a connexion between ideas and words; and our abstract ideas, and general words, have so constant a relation one to another, that it is impossible to speak clearly and distinctly of our knowledge, which all consists in propositions, without considering, first the nature, use, and signification of language; which therefore must be the business of the next book.

BOOK III.

CHAP. I.

OF WORDS OR LANGUAGE IN GENERAL.

§ 1. *Man fitted to form articulate sounds.*

GOD having designed man for a sociable creature, made him not only with an inclination, and under a necessity to have fellowship with those of his own kind; but furnished him also with language, which was to be the great instrument and common tie of society. Man therefore had by nature his organs so fashioned, as to be fit to frame articulate sounds, which we call words. But this was not enough to produce language; for parrots, and several other birds, will be taught to make articulate sounds distinct enough, which yet, by no means, are capable of language.

§ 2. *To make them signs of ideas.*

Besides articulate sounds therefore, it was farther necessary, that he should be able to use these sounds

as signs of internal conceptions; and to make them stand as marks for the ideas within his own mind, whereby they might be made known to others, and the thoughts of men's minds be conveyed from one to another.

§ 3. *To make general signs.*

But neither was this sufficient to make words so useful as they ought to be. It is not enough for the perfection of language, that sounds can be made signs of ideas, unless those signs can be so made use of as to comprehend several particular things: for the multiplication of words would have perplexed their use, had every particular thing need of a distinct name to be signified by. To remedy this inconvenience, language had yet a farther improvement in the use of general terms, whereby one word was made to mark a multitude of particular existences: which advantageous use of sounds was obtained only by the difference of the ideas they were made signs of: those names becoming general, which are made to stand for general ideas, and those remaining particular, where the ideas they are used for are particular.

§ 4.

Besides these names which stand for ideas, there be other words which men make use of, not to signify any idea, but the want or absence of some ideas simple or complex, or all ideas together; such as are nihil in Latin, and in English, ignorance and barrenness. All which negative or privative words cannot be said properly to belong to, or signify no ideas; for then they would be perfectly insignificant sounds; but they relate to positive ideas, and signify their absence.

§ 5. *Words ultimately derived from such as signify sensible ideas.*

It may also lead us a little towards the original of all our notions and knowledge, if we remark how great a dependence our words have on common sen-

sible ideas : and how those, which are made use of to stand for actions and notions quite removed from sense, have their rise from thence, and from obvious sensible ideas are transferred to more abstruse significations ; and made to stand for ideas that come not under the cognizance of our senses : *v. g.* to imagine, apprehend, comprehend, adhere, conceive, instil, disgust, disturbance, tranquillity, &c. are all words taken from the operations of sensible things, and applied to certain modes of thinking. Spirit, in its primary signification, is breath : angel, a messenger : and I doubt not, but if we could trace them to their sources, we should find, in all languages, the names, which stand for things that fall not under our senses, to have had their first rise from sensible ideas. By which we may give some kind of guess what kind of notions they were, and whence derived, which filled their minds who were the first beginners of languages : and how nature, even in the naming of things, unawares suggested to men the originals and principles of all their knowledge : whilst, to give names that might make known to others any operations they felt in themselves, or any other ideas that came not under their senses, they were fain to borrow words from ordinary known ideas of sensation, by that means to make others the more easily to conceive those operations they experimented in themselves which made no outward sensible appearances : and then when they had got known and agreed names, to signify those internal operations of their own minds, they were sufficiently furnished to make known by words all their other ideas ; since they could consist of nothing, but either of outward sensible perceptions, or of the inward operations of their minds about them : we having, as has been proved, no ideas at all, but what originally come either from sensible objects without, or what we feel within ourselves, from the inward workings of our own spirits, of which we are conscious to ourselves within.

§ 6. *Distribution.*

But to understand better the use and force of language, as subservient to instruction and knowledge, it will be convenient to consider,

First, To what it is that names, in the use of language, are immediately applied.

Secondly, Since all (except proper) names are general, and so stand not particularly for this or that single thing, but for sorts and ranks of things; it will be necessary to consider, in the next place, what the sorts and kinds, or, if you rather like the Latin names, what the species and genera of things are; wherein they consist, and how they come to be made. These being (as they ought) well looked into, we shall the better come to find the right use of words, the natural advantages and defects of language, and the remedies that ought to be used, to avoid the inconveniences of obscurity or uncertainty in the signification of words, without which it is impossible to discourse with any clearness, or order, concerning knowledge: which being conversant about propositions, and those most commonly universal ones, has greater connexion with words than perhaps is suspected.

These considerations therefore shall be the matter of the following chapters.

CHAP. II.

OF THE SIGNIFICATION OF WORDS.

§ 1. *Words are sensible signs necessary for communication.*

MAN, though he has great variety of thoughts, and such, from which others, as well as himself, might receive profit and delight; yet they are all within his

own breast, invisible and hidden from others, nor can of themselves be made appear. The comfort and advantage of society not being to be had without communication of thoughts, it was necessary that man should find out some external sensible signs, whereof those invisible ideas, which his thoughts are made up for, might be made known to others. For this purpose nothing was so fit, either for plenty or quickness, as those articulate sounds, which with so much ease and variety he found himself able to make. Thus we may conceive how words which were by nature so well adapted to that purpose, come to be made use of by men, as the signs of their ideas; not by any natural connection that there is between particular articulate sounds and certain ideas, for then there would be but one language amongst all men; but by a voluntary imposition, whereby such a word is made arbitrarily the mark of such an idea. The use then of words is to be sensible marks of ideas; and the ideas they stand for are their proper and immediate signification.

§ 2. *Words are the sensible signs of his ideas who uses them.*

The use men have of these marks being either to record their own thoughts for the assistance of their own memory, or as it were to bring out their ideas, and lay them before the view of others; words in their primary or immediate signification stand for nothing but the ideas in the mind of him that uses them, how imperfectly soever or carelessly those ideas are collected from the things which they are supposed to represent. When a man speaks to another, it is that he may be understood; and the end of speech is, that those sounds, as marks, may make known his ideas to the hearer. That then which words are the marks of are the ideas of the speaker: nor can any one apply them as marks, immediately to any thing else, but the ideas that he himself hath. For this would be to make them signs of his own concep-

tions, and yet apply them to other ideas; which would be to make them signs, and not signs, of his ideas at the same time; and so in effect to have no signification at all. Words being voluntary signs, they cannot be voluntary signs imposed by him on things he knows not. That would be to make them signs of nothing, sounds without signification. A man cannot make his words the signs either of qualities in things, or of conceptions in the mind of another, whereof he has none in his own. Till he has some ideas of his own, he cannot suppose them to correspond with the conceptions of another man; nor can he use any signs for them: for thus they would be the signs of he knows not what, which is in truth to be the signs of nothing. But when he represents to himself other men's ideas by some of his own, if he consent to give them the same names that other men do, it is still to his own ideas; to ideas that he has, and not to ideas that he has not.

§ 3.

This is so necessary in the use of language, that in this respect the knowing and the ignorant, the learned and unlearned, use the words they speak (with any meaning) all alike. They, in every man's mouth, stand for the ideas he has, and which he would express by them. A child having taken notice of nothing in the metal he hears called gold, but the bright shining yellow colour, he applies the word gold only to his own idea of that colour, and nothing else; and therefore calls the same colour in a peacock's tail gold. Another that hath better observed, adds to shining yellow great weight: and then the sound gold when he uses it, stands for a complex idea of a shining yellow and very weighty substance. Another adds to those qualities fusibility: and then the word gold signifies to him a body, bright, yellow, fusible, and very heavy. Another adds malleability. Each of these uses equally the word gold when they have occasion to express the idea which

they have applied it to: but it is evident, that each can apply it only to his own idea; nor can he make it stand as a sign of such a complex idea as he has not.

§ 4. *Words often secretly referred, first to the ideas in other men's minds.*

But though words, as they are used by men, can properly and immediately signify nothing but the ideas that are in the mind of the speaker; yet they in their thoughts give them a secret reference to two other things.

First, They suppose their words to be marks of the ideas in the minds also of other men; with whom they communicate: for else they should talk in vain, and could not be understood, if the sounds they applied to one idea were such as by the hearer were applied to another; which is to speak two languages. But in this, men stand not usually to examine, whether the idea they and those they discourse with have in their minds, be the same; but think it enough that they use the word, as they imagine, in the common acceptance of that language; in which they suppose, that the idea they make it a sign of is precisely the same, to which the understanding men of that country apply that name.

§ 5. *Secondly, to the reality of things.*

Secondly, Because men would not be thought to talk barely of their own imaginations, but of things as really they are; therefore they often suppose the words to stand also for the reality of things. But this relating more particularly to substances, and their names, as perhaps the former does to simple ideas and modes, we shall speak of these two different ways of applying words more at large, when we come to treat of the names of fixed modes, and substances in particular: though give me leave here to say, that it is a perverting the use of words, and brings unavoidable obscurity and confusion into their

signification, whenever we make them stand for any thing, but those ideas we have in our own minds.

§ 6. *Words by use readily excite ideas.*

Concerning words also it is farther to be considered: first, that they being immediately the signs of men's ideas, and by that means the instruments whereby men communicate their conceptions, and express to one another those thoughts and imaginations they have within their own breasts; there comes by constant use to be such a connexion between certain sounds and the ideas they stand for, that the names heard, almost as readily excite certain ideas, as if the objects themselves, which are apt to produce them, did actually affect the senses. Which is manifestly so in all obvious sensible qualities; and in all substances, that frequently and familiarly occur to us.

§ 7. *Words often used without signification.*

Secondly, That though the proper and immediate signification of words are ideas in the mind of the speaker, yet because by familiar use from our cradles we come to learn certain articulate sounds very perfectly, and have them readily on our tongues, and always at hand in our memories, but yet are not always careful to examine, or settle their significations perfectly; it often happens that men, even when they would apply themselves to an attentive consideration, do set their thoughts more on words than things. Nay, because words are many of them learned before the ideas are known for which they stand; therefore some, not only children, but men, speak several words no otherwise than parrots do, only because they have learned them, and have been accustomed to those sounds. But so far as words are of use and signification, so far is there a constant connexion between the sound and the idea, and a designation that the one stands for the other; without which application of them, they are nothing but so much insignificant noise.

§ 8. *Their signification perfectly arbitrary.*

Words by long and familiar use, as has been said, come to excite in men certain ideas so constantly and readily, that they are apt to suppose a natural connexion between them. But that they signify only men's peculiar ideas, and that by a perfect arbitrary imposition, is evident in that they often fail to excite in others (even that use the same language) the same ideas we take them to be the signs of: and every man has so inviolable a liberty to make words stand for what ideas he pleases, that no one hath the power to make others have the same ideas in their minds that he has, when they use the same words that he does. And therefore the great Augustus himself, in the possession of that power which ruled the world, acknowledged he could not make a new Latin word: which was as much as to say, that he could not arbitrarily appoint what idea any sound should be a sign of, in the mouths and common language of his subjects. It is true, common use by a tacit consent appropriates certain sounds to certain ideas in all languages, which so far limits the signification of that sound, that unless a man applies it to the same idea, he does not speak properly: and let me add, that unless a man's words excite the same ideas in the hearer, which he makes them stand for in speaking, he does not speak intelligibly. But whatever be the consequence of any man's using of words differently, either from their general meaning, or the particular sense of the person to whom he addresses them, this is certain, their signification, in his use of them, is limited to his ideas, and they can be signs of nothing else.

CHAP. III.

OF GENERAL TERMS.

§ 1. *The greatest part of words general.*

ALL things that exist being particulars, it may perhaps be thought reasonable that words, which ought to be conformed to things, should be so too; I mean in their signification: but yet we find the quite contrary. The far greatest part of words, that make all languages, are general terms; which has not been the effect of neglect or chance, but of reason and necessity.

§ 2. *For every particular thing to have a name is impossible.*

First, It is impossible that every particular thing should have a distinct peculiar name. For the signification and use of words, depending on that connexion which the mind makes between its ideas and the sounds it uses as signs of them, it is necessary, in the application of names to things, that the mind should have distinct ideas of the things, and retain also the particular name that belongs to every one, with its peculiar appropriation to that idea. But it is beyond the power of human capacity to frame and retain distinct ideas of all the particular things we meet with: every bird and beast men saw, every tree and plant that affected the senses, could not find a place in the most capacious understanding. If it be looked on as an instance of a prodigious memory, that some generals have been able to call every soldier in their army by his proper name, we may easily find a reason, why men have never attempted to give names to each sheep in their flock, or crow that flies

over their heads; much less to call every leaf of plants, or grain of sand that came in their way, by a peculiar name.

§ 3. *And useless.*

Secondly, If it were possible, it would yet be useless; because it would not serve to the chief end of language. Men would in vain heap up names of particular things, that would not serve them to communicate their thoughts. Men learn names, and use them in talk with others, only that they may be understood: which is then only done, when by use or consent the sound I make by the organs of speech, excites in another man's mind, who hears it, the idea I apply it to in mine, when I speak it. This cannot be done by names applied to particular things, whereof I alone having the ideas in my mind, the names of them could not be significant or intelligible to another, who was not acquainted with all those very particular things which had fallen under my notice.

§ 4.

Thirdly, But yet granting this also feasible (which I think is not) yet a distinct name for every particular thing would not be of any great use for the improvement of knowledge: which, though founded in particular things, enlarges itself by general views; to which things reduced into sorts under general names, are properly subservient. These, with the names belonging to them, come within some compass, and do not multiply every moment, beyond what either the mind can contain, or use requires: and therefore, in these, men have for the most part stopped; but yet not so as to hinder themselves from distinguishing particular things, by appropriated names, where convenience demands it. And therefore in their own species, which they have most to do with, and wherein they have often occasion to mention particular persons, they make use of proper

names; and there distinct individuals have distinct denominations.

§ 5. *What things have proper names.*

Besides persons, countries also, cities, rivers, mountains, and other the like distinctions of place, have usually found peculiar names, and that for the same reason; they being such as men have often an occasion to mark particularly, and as it were set before others in their discourses with them. And I doubt not, but if we had reason to mention particular horses, as often as we have to mention particular men, we should have proper names for the one, as familiar as for the other; and Bucephalus would be a word as much in use, as Alexander. And therefore we see that, amongst jockeys, horses have their proper names to be known and distinguished by, as commonly as their servants; because, amongst them, there is often occasion to mention this or that particular horse, when he is out of sight.

§ 6. *How general words are made.*

The next thing to be considered, is, how general words come to be made. For since all things that exist are only particulars, how come we by general terms, or where find we those general natures they are supposed to stand for? Words become general, by being made the signs of general ideas; and ideas become general, by separating from them the circumstances of time, and place, and any other ideas, that may determine them to this or that particular existence. By this way of abstraction they are made capable of representing more individuals than one; each of which having in it a conformity to that abstract idea, is (as we call it) of that sort.

§ 7.

But to deduce this a little more distinctly, it will not perhaps be amiss to trace our notions and names from their beginning, and observe by what degrees we proceed, and by what steps we enlarge our ideas

from our first infancy. There is nothing more evident than that the ideas of the persons children converse with (to instance in them alone) are like the persons themselves, only particular. The ideas of the nurse, and the mother, are well framed in their minds; and, like pictures of them there, represent only those individuals. The names they first gave to them are confined to these individuals; and the names of nurse and mamma the child uses, determine themselves to those persons. Afterwards, when time and a larger acquaintance have made them observe, that there are a great many other things in the world that in some common agreements of shape, and several other qualities, resemble their father and mother, and those persons they have been used to, they frame an idea, which they find those many particulars do partake in; and to that they give, with others, the name man for example. And thus they come to have a general name, and a general idea. Wherein they make nothing new, but only leave out of the complex idea they had of Peter and James, Mary and Jane, that which is peculiar to each, and retain only what is common to them all.

§ 8.

By the same way that they come by the general name and idea of man, they easily advance to more general names and notions. For observing that several things that differ from their idea of man, and cannot therefore be comprehended under that name, have yet certain qualities wherein they agree with man, by retaining only those qualities, and uniting them into one idea, they have again another and more general idea; to which having given a name, they make a term of a more comprehensive extension: which new idea is made, not by any new addition, but only, as before, by leaving out the shape and some other properties signified by the name man, and

retaining only a body, with life, sense, and spontaneous motion, comprehended under the name animal.

§ 9. *General natures are nothing but abstract ideas.*

That this is the way whereby men first formed general ideas, and general names to them, I think, is so evident, that there needs no other proof of it, but the considering of a man's self, or others, and the ordinary proceedings of their minds in knowledge: and he that thinks general natures or notions are any thing else but such abstract and partial ideas of more complex ones, taken at first from particular existences, will, I fear, be at a loss where to find them. For let any one reflect, and then tell me, wherein does his idea of man differ from that of Peter and Paul, or his idea of horse from that of Bucephalus, but in the leaving out something that is peculiar to each individual, and retaining so much of those particular complex ideas of several particular existences, as they are found to agree in? Of the complex ideas signified by the names man and horse, leaving out but those particulars wherein they differ, and retaining only those wherein they agree, and of those making a new distinct complex idea, and giving the name animal to it; one has a more general term, that comprehends with man several other creatures. Leave out of the idea of animal, sense and spontaneous motion; and the remaining complex idea, made up of the remaining simple ones of body, life, and nourishment, becomes a more general one, under the more comprehensive term vivens. And not to dwell longer upon this particular, so evident in itself, by the same way the mind proceeds to body, substance, and at last to being, thing, and such universal terms which stand for any of our ideas whatsoever. To conclude, this whole mystery of genera and species, which make such a noise in the schools, and are with justice so little regarded out of them, is nothing else but abstract ideas, more or less comprehensive, with names

annexed to them. In all which this is constant and unvariable, that every more general term stands for such an idea, and is but a part of any of those contained under it.

§ 10. *Why the genus is ordinarily made use of in definitions.*

This may shew us the reason, why, in the defining of words, which is nothing but declaring their significations, we make use of the genus, or next general word that comprehends it. Which is not out of necessity, but only to save the labour of enumerating the several simple ideas, which the next general word or genus stands for ; or, perhaps, sometimes the shame of not being able to do it. But though defining by genus and differentia (I crave leave to use these terms of art, though originally Latin, since they most properly suit those notions they are applied to) I say, though defining by the genus be the shortest way, yet I think it may be doubted whether it be the best. This I am sure, it is not the only, and so not absolutely necessary. For definition being nothing but making another understand by words what idea the term defined stands for, a definition is best made by enumerating those simple ideas that are combined in the signification of the term defined ; and if instead of such an enumeration, men have accustomed themselves to use the next general term ; it has not been out of necessity, or for greater clearness, but for quickness and dispatch sake. For, I think, that to one who desired to know what idea the word man stood for, if it should be said, that man was a solid extended substance, having life, sense, spontaneous motion, and the faculty of reasoning : I doubt not but the meaning of the term man would be as well understood, and the idea it stands for be at least as clearly made known, as when it is defined to be a rational animal ; which by the several definitions of animal, vivens, and corpus, resolves itself into those enu-

merated ideas. I have, in explaining the term man, followed here the ordinary definition of the schools : which though, perhaps, not the most exact, yet serves well enough to my present purpose. And one may, in this instance, see what gave occasion to the rule, that a definition must consist of genus and differentia ; and it suffices to show us the little necessity there is of such a rule, or advantage in the strict observing of it. For definitions, as has been said, being only the explaining of one word by several others, so that the meaning or idea it stands for, may be certainly known ; languages are not always so made according to the rules of logic, that every term can have its signification exactly and clearly expressed by two others. Experience sufficiently satisfies us to the contrary ; or else those who have made this rule have done ill, that they have given us so few definitions conformable to it. But of definitions more in the next chapter.

§ 11. *General and universal are creatures of the understanding.*

To return to general words, it is plain by what has been said, that general and universal belong not to the real existence of things ; but are the inventions and creatures of the understanding, made by it for its own use, and concern only signs, whether words or ideas. Words are general, as has been said, when used for signs of general ideas, and so are applicable indifferently to many particular things : and ideas are general, when they are set up as the representatives of many particular things : but universality belongs not to things themselves, which are all of them particular in their existence ; even those words and ideas, which in their signification are general. When therefore we quit particulars, the generals that rest are only creatures of our own making ; their general nature being nothing but the capacity they are put into by the understanding, of signifying or representing many particulars. For the signification they have

is nothing but a relation, that by the mind of man is added to them (1).

§ 12. *Abstract ideas are the essences of the genera and species.*

The next thing therefore to be considered, is, what kind of signification it is, that general words have.

(1) Against this the bishop of Worcester objects, and our author * answers as followeth: 'however, saith the bishop, the abstracted ideas are the work of the mind, yet they are not mere creatures of the mind: as appears by an instance produced of the essence of the sun being in one single individual; in which case it is granted, That the idea may be so abstracted, that more suns might agree in it, and it is as much a sort, as if there were as many suns as there are stars. So that here we have a real essence subsisting in one individual, but capable of being multiplied into more, and the same essence remaining. But in this one sun there is a real essence, and not a mere nominal, or abstracted essence: but suppose there were more suns; would not each of them have the real essence of the sun? For what is it makes the second sun, but having the same real essence with the first? If it were but a nominal essence, then the second would have nothing but the name.'

This, as I understand, replies Mr. Locke, is to prove, that the abstract general essence of any sort of things, or things of the same denomination, *v. g.* of man or marigold, hath a real being out of the understanding? which, I confess, I am not able to conceive. Your lordship's proof here brought out of my Essay, concerning the sun, I humbly conceive, will not reach it: because what is said there, does not at all concern the real but nominal essence, as is evident from hence, that the idea I speak of there, is a complex idea; but we have no complex idea of the internal constitution or real essence of the sun. Besides, I say expressly, That our distinguishing substances into species, by names, is not at all founded on their real essences. So that the sun being one of these substances, I cannot, in the place quoted by your lordship, be supposed to mean by essence of the sun, the real essence of the sun, unless I had so expressed it. But all this argument will be at an end, when your lordship shall have explained what you mean by these words, 'true sun.' In my sense of them, any thing will be a true sun to which the name sun may be truly and properly applied, and to that substance or thing the name sun may be truly and properly applied, which has united in it that combination of sensible qualities, by which any thing else, that is called sun, is distinguished from other substances, *i. e.* by the nominal essence: and thus our sun is denominated and distinguished from a fixed star, not by a real essence that we do not know (for if we did, it is possible we should find the real essence or constitution of one of the fixed stars to be the same with that of our sun) but by a complex

* In his first letter.

For as it is evident, that they do not signify barely one particular thing; for then they would not be general terms, but proper names; so on the other side it is as evident, they do not signify a plurality; for man and men would then signify the same, and the distinction of numbers (as the grammarians call

idea of sensible qualities co-existing, which, wherever they are found, make a true sun. And thus I crave leave to answer your lordship's question: 'for what is it makes the second sun to be a true sun, but having the same real essence with the first? If it were but a nominal essence, then the second would have nothing but the name.'

I humbly conceive, if it had the nominal essence, it would have something besides the name, viz. That nominal essence, which is sufficient to denominate it truly a sun, or to make it be a true sun, though we know nothing of that real essence whereon that nominal one depends. Your lordship will then argue, that that real essence is in the second sun, and makes the second sun. I grant it, when the second sun comes to exist, so as to be perceived by us to have all the ideas contained in our complex idea, *i. e.* in our nominal essence of a sun. For should it be true, (as is now believed by astronomers) that the real essence of the sun were in any of the fixed stars, yet such a star could not for that be by us called a sun, whilst it answers not our complex idea, or nominal essence of a sun. But how far that will prove, that the essences of things, as they are knowable by us, have a reality in them distinct from that of abstract ideas in the mind, which are merely creatures of the mind, I do not see; and we shall farther inquire, in considering your lordship's following words. 'Therefore,' say you, 'there must be a real essence in every individual of the same kind.' Yes, and I beg leave of your lordship to say, of a different kind too. For that alone is it which makes it to be what it is.

That every individual substance has real, internal, individual constitution, *i. e.* a real essence, that makes it to be what it is, I readily grant. Upon this your lordship says, Peter, James, and John, are all true and real men.' Answ. Without doubt, supposing them to be men, they are true and real men, *i. e.* supposing the name of that species belongs to them. And so three bobaques are all true and real bobaques, supposing the name of that species of animals belongs to them.

For I beseech your lordship to consider, whether in your way of arguing, by naming them, Peter, James, and John, names familiar to us, as appropriated to individuals of the species man, your lordship does not first suppose them men, and then very safely ask, whether they be not all true and real men? But if I should ask your lordship, whether Weweena, Chuckery, and Cousheda, were true and real men or no? Your lordship would not be able to tell

them) would be superfluous and useless. That then which general words signify is a sort of things; and each of them does that, by being a sign of an abstract idea in the mind, to which idea, as things existing are found to agree, so they come to be ranked under that name; or, which is all one, be of that

me, till, I having pointed out to your lordship the individuals called by those names, your lordship, by examining whether they had in them those sensible qualities which your lordship has combined into that complex idea to which you give the specific name man, determined them all, or some of them, to be the species which you call man, and so to be true and real man; which when your lordship has determined, it is plain you did it by that which is only the nominal essence, as not knowing the real one. But your lordship farther asks, 'What is it makes Peter, James, and John real men? Is it the attributing the general name to them? No, certainly; but that the true and real essence of a man is in every one of them.'

If, when your lordship asks, 'what makes them men?' your lordship used the word making in the proper sense for the efficient cause, and in that sense it were true, that the essence of a man, *i. e.* the specific essence of that species made a man; it would undoubtedly follow, that this specific essence had a reality beyond that of being only a general abstract idea in the mind. But when it is said, that it is the true and real essence of a man in every one of them that makes Peter, James, and John true and real men, the true and real meaning of these words is no more, but that the essence of that species, *i. e.* the properties answering the complex abstract idea to which the specific name is given, being found in them, that makes them be properly and truly called men, or is the reason why they are called men. Your lordship adds, 'and we must be as certain of this, as we are that they are men.'

How, I beseech your lordship, are we certain that they are men, but only by our senses, finding those properties in them which answer the abstract complex idea, which is in our minds, of the specific idea to which we have annexed the specific name man? This I take to be the true meaning of what your lordship says in the next words, *viz.* 'They take their denomination of being men from that common nature or essence which is in them;' and I am apt to think, these words will not hold true in any other sense.

Your lordship's fourth inference begins thus: 'That the general idea is not made from the simple ideas by the mere act of the mind abstracting from circumstances, but from reason and consideration of the nature of things.'

I thought, my lord, that reason and consideration had been acts of the mind, mere acts of the mind, when any thing was done by them. Your lordship gives a reason for it, *viz.* 'For, when we see

sort. Whereby it is evident, that the essences of the sorts, or (if the Latin word pleases better) species of things, are nothing else but these abstract ideas. For the having the essence of any species, being that which makes any thing to be of that species, and the conformity to the idea to which the name is annex-

‘several individuals that have the same powers and properties, we thence infer, that there must be something common to all, which makes them of one kind.’

I grant the inference to be true; but must beg leave to deny that this proves, that the general idea the name is annexed to, is not made by the mind. I have said, and it agrees with what your lordship here says, *That ‘the mind, in making its complex ideas of substances, only follows nature, and puts no ideas together, which are not supposed to have an union in nature. Nobody joins the voice of a sheep with the shape of an horse; nor the colour of lead with the weight and fixedness of gold, to be the complex ideas of any real substances; unless he has a mind to fill his head with chimeras, and his discourses with unintelligible words. Men observing certain qualities always joined and existing together, therein copied nature, and of ideas so united, made their complex ones of ‘substance, &c.’ Which is very little different from what your lordship here says, that it is from our observation of individuals, that we come to infer, ‘that there is something common to them all.’ But I do not see how it will thence follow, that the general or specific idea is not made by the mere act of the mind. No, says your lordship, ‘There is something common to them all, which makes them of one kind; and if the difference of kinds be real, that which makes them all of one kind must not be a nominal but real essence.’

This may be some objection to the name of nominal essence; but is, as I humbly conceive, none to the thing designed by it. There is an internal constitution of things, on which their properties depend. This your lordship and I are agreed of, and this we call the real essence. There are also certain complex ideas, or combinations of these properties in men’s minds, to which they commonly annex specific names, or names of sorts or kinds of things. This, I believe, your lordship does not deny. These complex ideas, for want of a better name, I have called nominal essences; how properly, I will not dispute. But if any one will help me to a better name for them, I am ready to receive it; till then, I must, to express myself, use this. Now, my lord, body, life, and the power of reasoning, being not the real essence of a man, as I believe your lordship will agree, will your lordship say, that they are not enough to make the thing

ed, being that which gives a right to that name; the having the essence, and the having that conformity, must needs be the same thing: since to be of any species, and to have a right to the name of that species, is all one. As for example, to be a man, or of the species man, and to have a right to the name

wherein they are found, of the kind called man, and not of the kind called baboon, because the difference of these kinds is real? If this be not real enough to make the thing of one kind and not of another, I do not see how animal rationale can be enough really to distinguish a man from an horse; for that is but the nominal, not real essence of that kind, designed by the name man: and yet I suppose, every one thinks it real enough to make a real difference between that and other kinds. And if nothing will serve the turn, to MAKE things of one kind and not of another (which, as I have showed, signifies no more but ranking of them under different specific names) but their real unknown constitutions, which are the real essences we are speaking of, I fear it would be a long while before we should have really different kinds of substances, or distinct names for them, unless we could distinguish them by these differences, of which we have no distinct conceptions. For I think it would not be readily answered me, if I should demand, wherein lies the real difference in the internal constitution of a stag from that of a buck, which are each of them very well known to be of one kind, and not of the other; and nobody questions but that the kinds, whereof each of them is, are really different.

Your lordship farther says, 'And this difference doth not depend upon the complex ideas of substances, whereby men arbitrarily join modes together in their minds.' I confess, my lord, I know not what to say to this, because I do not know what these complex ideas of substances are, whereby men arbitrarily join modes together in their minds. But I am apt to think there is a mistake in the matter, by the words that follow, which are these: 'For let them mistake in their complication of ideas, either in leaving out or putting in what doth not belong to them; and let their ideas be what they please, the real essence of a man, and an horse, and a tree, are just what they were.'

The mistake I spoke of, I humbly suppose, is this, that things are here taken to be distinguished by their real essences; when, by the very way of speaking of them, it is clear, that they are already distinguished by their nominal essences, and are so taken to be. For what, I beseech your lordship, does your lordship mean, when you say, 'The real essence of a man, and an horse, and a tree,' but that there are such kinds already set out by the signification of these names, man, horse, tree? And what, I beseech your lordship, is the signification of each of these specific names, but the complex idea it

man, is the same thing. Again, to be a man, or of the species man, and have the essence of a man, is the same thing. Now since nothing can be a man, or have a right to the name man, but what has a conformity to the abstract idea the name man stands for; nor any thing be a man or have a right to the

stands for? And that complex idea is the nominal essence, and nothing else. So that taking man, as your lordship does here, to stand for a kind or sort of individuals, all which agree in that common complex idea, which that specific name stands for, it is certain that the real essence of all the individuals comprehended under the specific name man, in your use of it, would be just the same; let others leave out or put into their complex idea of man what they please; because the real essence on which that unaltered complex idea, *i. e.* those properties depend, must necessarily be concluded to be the same.

For I take it for granted, that in using the name man, in this place, your lordship uses it for that complex idea which is in your lordship's mind of that species. So that your lordship, by putting it for, or substituting it in the place of that complex idea where you say the real essence of it is just as it was, or the very same as it was, does suppose the idea it stands for to be steadily the same. For if I change the signification of the word man, whereby it may not comprehend just the same individuals which in your lordship's sense it does, but shut out some of those that to your lordship are men in your signification of the word man, or take in others to which your lordship does not allow the name man; I do not think you will say, that the real essence of man in both these senses is the same. And yet your lordship seems to say so, when you say, 'Let men mistake in the complication of their ideas, either in leaving out or putting in what doth not belong to them;' and let their ideas be what they please, the real essence of the individuals comprehended under the names annexed to these ideas, will be the same: for so, I humbly conceive, it must be put, to make out what your lordship aims at. For as your lordship puts it by the name of man, or any other specific name, your lordship seems to me to suppose, that that name stands for, and not for, the same idea, at the same time.¹

For example, my lord, let your lordship's idea, to which you annex the sign man, be a rational animal: let another man's idea be a rational animal of such a shape; let a third man's idea be of an animal of such a size and shape, leaving out rationality; let a fourth's be an animal with a body of such a shape, and an immaterial substance, with a power of reasoning; let a fifth leave out of his idea an immaterial substance. It is plain every one of these will call his a man, as well as your lordship; and yet it is as plain that men, as standing for all these distinct, complex ideas, cannot be supposed to have the same internal constitution, *i. e.* the same real es-

species man, but what has the essence of that species; it follows, that the abstract idea for which the name stands, and the essence of the species, is one and the same. From whence it is easy to observe, that the essences of the sorts of things, and consequently the sorting of this, is the workmanship of the understanding, that abstracts and makes those general ideas.

sence. The truth is, every distinct abstract idea with a name to it, makes a real distinct kind, whatever the real essence (which we know not of any of them) be.

And therefore I grant it true what your lordship says in the next words, 'And let the nominal essences differ never so much, the real 'common essence or nature of the several kinds, are not at all altered by them,' *i. e.* That our thoughts or ideas cannot alter the real constitutions that are in things that exist, there is nothing more certain. But yet it is true, that the change of ideas, to which we annex them, can and does alter the signification of their names, and thereby alter the kinds, which by these names we rank and sort them into. Your lordship farther adds, 'And these real essences are unchangeable,' *i. e.* the internal constitutions are unchangeable. Of what, I beseech your lordship, are the internal constitutions unchangeable? Not of any thing that exists, but of God alone; for they may be changed all as easily by that hand that made them, as the internal frame of a watch. What then is it that is unchangeable? The internal constitution, or real essence of a species; which, in plain English, is no more but this, whilst the same specific name, *v. g.* of man, horse, or tree, is annexed to, or made the sign of the same abstract complex idea, under which I rank several individuals; it is impossible but the real constitution on which that unaltered, complex idea, or nominal essence depends, must be the same, *i. e.* in other words, where we find all the same properties, we have reason to conclude there is the same real, internal constitution from which those properties flow.

But your lordship proves the real essences to be unchangeable, because God makes them, in these following words: 'For, however 'there may happen some variety in individuals by particular accidents, yet the essences of men, and horses, and trees, remain always the same; because they do not depend on the ideas of men, 'but on the will of the Creator, who hath made several sorts of beings.'

It is true, the real constitutions or essences of particular things existing do not depend on the ideas of men, but on the will of the Creator: but their being ranked into sorts, under such and such names, does depend, and wholly depend, on the ideas of men.

§ 13. *They are the workmanship of the understanding, but have their foundation in the similitude of things.*

I would not here be thought to forget, much less to deny, that nature in the production of things makes several of them alike: there is nothing more obvious, especially in the races of animals, and all things propagated by seed. But yet, I think, we may say the sorting of them under names is the workmanship of the understanding, taking occasion from the similitude it observes amongst them to make abstract general ideas, and set them up in the mind, with names annexed to them as patterns or forms (for in that sense the word form has a very proper signification) to which as particular things existing are found to agree, so they come to be of that species, have that denomination, or are put into that classis. For when we say, this is a man, that a horse; this justice, that cruelty; this a watch, that a jack; what do we else but rank things under different specific names, as agreeing to those abstract ideas, of which we have made those names the signs? And what are the essences of those species set out and marked by names, but those abstract ideas in the mind; which are as it were the bonds between particular things that exist and the names they are to be ranked under? And when general names have any connexion with particular beings, these abstract ideas are the medium that unites them: so that the essences of species, as distinguished and denominated by us, neither are nor can be any thing but these precise abstract ideas we have in our minds. And therefore the supposed real essences of substances, if different from our abstract ideas, cannot be the essences of the species we rank things into. For two species may be one as rationally, as two different essences be the essence of one species: and I demand what are the alterations may or may not be in a horse or lead, without making either of them to be of an-

other species? In determining the species of things by our abstract ideas, this is easy to resolve: but if any one will regulate himself herein by supposed real essences, he will, I suppose, be at a loss; and he will never be able to know when any thing precisely ceases to be of the species of a horse or lead.

§ 14. *Each distinct abstract idea is a distinct essence.*

Nor will any one wonder, that I say these essences, or abstract ideas, (which are the measures of name, and the boundaries of species) are the workmanship of the understanding, who considers, that at least the complex ones are often, in several men, different collections of simple ideas: and therefore that is covetousness to one man, which is not so to another. Nay, even in substances, where their abstract ideas seem to be taken from the things themselves, they are not constantly the same; no not in that species which is most familiar to us, and with which we have the most intimate acquaintance: it having been more than once doubted, whether the foetus born of a woman were a man; even so far, as that it hath been debated, whether it were or were not to be nourished and baptised: which could not be, if the abstract idea or essence, to which the name man belonged, were of nature's making; and were not the uncertain and various collection of simple ideas, which the understanding put together, and then abstracting it, affixed a name to it. So that in truth every distinct abstract idea is a distinct essence: and the names that stand for such distinct ideas are the names of things essentially different. Thus a circle is as essentially different from an oval, as a sheep from a goat; and rain is as essentially different from snow, as water from earth; that abstract idea which is the essence of one being impossible to be communicated to the other. And thus any two abstract ideas, that in any part vary one from another, with two distinct names annexed to them, constitute two distinct sorts;

or, if you please, species, as essentially different as any two of the most remote, or opposite in the world.

§ 15. *Real and nominal essence.*

But since the essences of things are thought, by some, (and not without reason) to be wholly unknown; it may not be amiss to consider the several significations of the word essence.

First, essence may be taken for the being of any thing, whereby it is what it is. And thus the real internal, but generally, in substances, unknown constitution of things, whereon their discoverable qualities depend, may be called their essence. This is the proper original signification of the word, as is evident from the formation of it; *essentia*, in its primary notation, signifying properly being. And in this sense it is still used, when we speak of the essence of particular things, without giving them any name.

Secondly, the learning and disputes of the schools having been much busied about genus and species, the word essence has almost lost its primary signification: and instead of the real constitution of things, has been almost wholly applied to the artificial constitution of genus and species. It is true there is ordinarily supposed a real constitution of the sorts of things; and it is past doubt, there must be some real constitution, on which any collection of simple ideas co-existing must depend. But it being evident, that things are ranked under names into sorts or species, only as they agree to certain abstract ideas, to which we have annexed those names: the essence of each genus, or sort, comes to be nothing but that abstract idea, which the general, or sortal (if I may have leave so to call it from sort, as I do general from genus) name stands for. And this we shall find to be that which the word essence imports in its most familiar use. These two sorts of essences, I suppose, may not unfitly be termed, the one the real, the other nominal essence.

§ 16. *Constant connexion between the name and nominal essence.*

Between the nominal essence and the name, there is so near a connexion, that the name of any sort of things cannot be attributed to any particular being but what has this essence, whereby it answers that abstract idea, whereof that name is the sign.

§ 17. *Supposition, that species are distinguished by their real essences, useless.*

Concerning the real essences of corporeal substances, (to mention these only) there are, if I mistake not, two opinions. The one is of those, who using the word essence for they know not what, suppose a certain number of those essences, according to which all natural things are made, and wherein they do exactly every one of them partake, and so become of this or that species. The other, and more rational opinion, is of those who look on all natural things to have a real, but unknown constitution of their insensible parts; from which flow those sensible qualities, which serve us to distinguish them one from another, according as we have occasion to rank them into sorts under common denominations. The former of these opinions, which supposes these essences, as a certain number of forms or moulds, wherein all natural things, that exist, are cast, and do equally partake, has, I imagine, very much perplexed the knowledge of natural things. The frequent productions of monsters, in all the species of animals, and of changelings, and other strange issues of human birth, carry with them difficulties, not possible to consist with this hypothesis: since it is as impossible, that two things, partaking exactly of the same real essence, should have different properties, as that two figures partaking of the same real essence of a circle should have different properties. But were there no other reason against it, yet the supposition of essences that cannot be known, and the

making of them nevertheless to be that which distinguishes the species of things, is so wholly useless, and unserviceable to any part of our knowledge, that that alone were sufficient to make us lay it by, and content ourselves with such essences of the sorts or species of things as come within the reach of our knowledge: which, when seriously considered, will be found, as I have said, to be nothing else but those abstract complex ideas, to which we have annexed distinct general names.

§ 18. *Real and nominal essence the same in simple ideas and modes, different in substances.*

Essences being thus distinguished into nominal and real, we may farther observe, that in the species of simple ideas and modes, they are always the same; but in substances always quite different. Thus a figure including a space between three lines, is the real as well as nominal essence of a triangle; it being not only the abstract idea to which the general name is annexed, but the very *essentia* or being of the thing itself, that foundation from which all its properties flow, and to which they are all inseparably annexed. But it is far otherwise concerning that parcel of matter, which makes the ring on my finger, wherein these two essences are apparently different. For it is the real constitution of its insensible parts, on which depend all those properties of colour, weight, fusibility, fixedness, &c. which are to be found in it, which constitution we know not, and so having no particular idea of, have no name that is the sign of it. But yet it is its colour, weight, fusibility, fixedness, &c. which makes it to be gold, or gives it a right to that name, which is therefore its nominal essence: since nothing can be called gold but what has a conformity of qualities to that abstract complex idea, to which that name is annexed. But this distinction of essences belonging particularly to

substances, we shall, when we come to consider their names, have an occasion to treat of more fully.

§ 19. *Essences ingenerable and incorruptible.*

That such abstract ideas, with names to them, as we have been speaking of, are essences, may farther appear by what we are told concerning essences, viz. that they are all ingenerable and incorruptible. Which cannot be true of the real constitutions of things which begin and perish with them. All things that exist, besides their author, are all liable to change; especially those things we are acquainted with, and have ranked into bands under distinct names or ensigns. Thus that which was grass to-day, is to-morrow the flesh of a sheep; and within a few days after becomes part of a man: in all which, and the like changes, it is evident their real essence, *i. e.* that constitution, whereon the properties of these several things depended, is destroyed and perishes with them. But essences being taken for ideas, established in the mind, with names annexed to them, they are supposed to remain steadily the same, whatever mutations the particular substances are liable to. For whatever becomes of Alexander and Bucephalus, the ideas to which man and horse are annexed, are supposed nevertheless to remain the same; and so the essences of those species are preserved whole and undestroyed, whatever changes happen to any, or all of the individuals of those species. By this means the essence of a species rests safe and entire, without the existence of so much as one individual of that kind. For were there now no circle existing any where in the world, (as perhaps that figure exists not any where exactly marked out) yet the idea annexed to that name would not cease to be what it is; nor cease to be as a pattern to determine which of the particular figures we meet with have or have not a right to the name circle, and so to show which of them by having that essence, was of that species.

And though there neither were nor had been in nature such a beast as an unicorn, or such a fish as a mermaid; yet supposing those names to stand for complex abstract ideas that contained no inconsistency in them, the essence of a mermaid is as intelligible as that of a man; and the idea of an unicorn as certain, steady, and permanent as that of a horse. From what has been said it is evident, that the doctrine of the immutability of essences proves them to be only abstract ideas; and is founded on the relation established between them, and certain sounds as signs of them; and will always be true as long as the same name can have the same signification.

§ 20. *Recapitulation.*

To conclude, this is that which in short I would say, viz. that all the great business of genera and species, and their essences, amounts to no more but this, That men making abstract ideas, and settling them in their minds with names annexed to them, do thereby enable themselves to consider things, and discourse of them as it were in bundles, for the easier and readier improvement and communication of their knowledge; which would advance but slowly, were their words and thoughts confined only to particulars.

CHAP. IV.

OF THE NAMES OF SIMPLE IDEAS.

§ 1. *Names of simple ideas, modes, and substances, have each something peculiar.*

THOUGH all words, as I have shown, signify nothing immediately but the ideas in the mind of the speaker; yet upon a nearer survey we shall find that the names of simple ideas, mixed modes, (under which I comprise relations too) and natural substances, have each of them something peculiar and different from the other. For example:

§ 2.—1. *Names of simple ideas and substances intimate real existence.*

First, the names of simple ideas and substances, with the abstract ideas in the mind, which they immediately signify, intimate also some real existence, from which was derived their original pattern. But the names of mixed modes terminate in the idea that is in the mind, and lead not the thoughts any farther, as we shall see more at large in the following chapter.

§ 3.—2. *Names of simple ideas and modes signify always both real and nominal essence.*

Secondly, The names of simple ideas and modes signify always the real as well as nominal essence of their species. But the names of natural substances signify rarely, if ever, any thing but barely the nominal essences of those species; as we shall show in the chapter that treats of the names of substances in particular.

§ 4.—3. *Names of simple ideas undefinable.*

Thirdly, The names of simple ideas are not capable of any definition; the names of all complex ideas are. It has not, that I know, been yet observed by any body, what words are, and what are not capable of being defined; the want whereof is (as I am apt to think) not seldom the occasion of great wrangling and obscurity in men's discourses, whilst some demand definitions of terms that cannot be defined; and others think they ought not to rest satisfied in an explication made by a more general word, and its restriction, (or, to speak in terms of art, by a genus and difference) when even after such definition made according to rule, those who hear it have often no more a clear conception of the meaning of the word than they had before. This at least I think, that the showing what words are, and what are not capable of definitions, and wherein consists a good definition, is not wholly besides our present purpose; and perhaps will afford so much light to the nature of these signs, and our ideas, as to deserve a more particular consideration.

§ 5. *If all were definable, it would be a process in infinitum.*

I will not here trouble myself to prove that all terms are not definable from that progress in infinitum, which it will visibly lead us into, if we should allow that all names could be defined. For if the terms of one definition were still to be defined by another, where at last should we stop? But I shall from the nature of our ideas, and the signification of our words, show, why some names can, and others cannot be defined, and which they are.

§ 6. *What a definition is.*

I think it is agreed, that a definition is nothing else but the showing the meaning of one word by several other not synonymous terms. The meaning of words being only the ideas they are meant to stand

for by him that uses them, the meaning of any term is then showed, or the word is defined, when by other words the idea it is made the sign of, and annexed to, in the mind of the speaker, is as it were represented, or set before the view of another; and thus its signification ascertained: this is the only use and end of definitions; and therefore the only measure of what is, or is not a good definition.

§ 7. *Simple ideas why undefinable.*

This being premised, I say, that the names of simple ideas, and those only are incapable of being defined. The reason whereof is this, that the several terms of a definition, signifying several ideas, they can all together by no means represent an idea, which has no composition at all: and therefore definition, which is properly nothing but the showing the meaning of one word by several others not signifying each the same thing, can in the names of simple ideas have no place.

§ 8. *Instances; motion.*

The not observing this difference in our ideas, and their names, has produced that eminent trifling in the schools, which is so easy to be observed in the definitions they give us of some few of these simple ideas. For as to the greatest part of them, even those masters of definitions were fain to leave them untouched, merely by the impossibility they found in it. What more exquisite jargon could the wit of man invent, than this definition, "The act of a being in power, as far forth as in power?" which would puzzle any rational man, to whom it was not already known by its famous absurdity, to guess what word it could ever be supposed to be the explication of. If Tully, asking a Dutchman what "beweeginge" was, should have received this explication in his own language, that it was "actus entis in potentia quatenus in potentia;" I ask whether any one can imagine he could thereby have understood what the word

“beweeginge” signified, or have guessed what idea a Dutchman ordinarily had in his mind, and would signify to another, when he used that sound.

§ 9.

Nor have the modern philosophers, who have endeavoured to throw off the jargon of the schools, and speak intelligibly, much better succeeded in defining simple ideas, whether by explaining their causes, or any otherwise. The atomists, who define motion to be a passage from one place to another, what do they more than put one synonymous word for another? For what is passage other than motion? And if they were asked what passage was, how would they better define it than by motion? For is it not at least as proper and significant to say, passage is a motion from one place to another, as to say, motion is a passage, &c.? This is to translate, and not to define, when we change two words of the same signification one for another; which, when one is better understood than the other, may serve to discover what idea the unknown stands for; but is very far from a definition, unless we will say every English word in the dictionary is the definition of the Latin word it answers, and that motion is a definition of motus. Nor will the successive application of the parts of the superficies of one body to those of another, which the Cartesians give us, prove a much better definition of motion, when well examined.

§ 10. *Light.*

“The act of perspicuous, as far forth as perspicuous,” is another peripatetic definition of a simple idea; which though not more absurd than the former of motion, yet betrays its uselessness and insignificancy more plainly, because experience will easily convince any one, that it cannot make the meaning of the word light (which it pretends to define) at all understood by a blind man; but the definition of motion appears not at first sight so useless, because

it escapes this way of trial. For this simple idea, entering by the touch as well as sight, it is impossible to show an example of any one, who has no other way to get the idea of motion, but barely by the definition of that name. Those who tell us, that light is a great number of little globules, striking briskly on the bottom of the eye, speak more intelligibly than the schools; but yet these words ever so well understood would make the idea the word light stands for no more known to a man that understands it not before, than if one should tell him, that light was nothing but a company of little tennis-balls, which fairies all day long struck with rackets against some men's foreheads, whilst they passed by others. For granting this explication of the thing to be true; yet the idea of the cause of light, if we had it ever so exact, would no more give us the idea of light itself, as it is such a particular perception in us, than the idea of the figure and motion of a sharp piece of steel would give us the idea of that pain which it is able to cause in us. For the cause of any sensation, and the sensation itself, in all the simple ideas of one sense, are two ideas; and two ideas so different and distant one from another, that no two can be more so. And therefore should Des Cartes' globules strike ever so long on the retina of a man, who was blind by a gutta serena, he would thereby never have any idea of light, or any thing approaching it, though he understood what little globules were, and what striking on another body was, ever so well. And therefore the Cartesians very well distinguish between that light which is the cause of that sensation in us, and the idea which is produced in us by it, and is that which is properly light.

§ 11. *Simple Ideas, why undefinable, farther explained.*

Simple ideas, as has been shown, are only to be got by those impressions objects themselves make on

our minds, by the proper inlets appointed to each sort. If they are not received this way, all the words in the world, made use of to explain or define any of their names, will never be able to produce in us the idea it stands for. For words being sounds, can produce in us no other simple ideas, than of those very sounds; nor excite any in us, but by that voluntary connexion which is known to be between them and those simple ideas, which common use has made them signs of. He that thinks otherwise, let him try if any words can give him the taste of a pineapple, and make him have the true idea of the relish of that celebrated delicious fruit. So far as he is told it has a resemblance with any tastes, whereof he has the ideas already in his memory, imprinted there by sensible objects not strangers to his palate, so far may he approach that resemblance in his mind. But this is not giving us that idea by a definition, but exciting in us other simple ideas by their known names; which will be still very different from the true taste of that fruit itself. In light and colours, and all other simple ideas, it is the same thing; for the signification of sounds is not natural, but only imposed and arbitrary. And no definition of light, or redness, is more fitted, or able to produce either of those ideas in us, than the sound light or red by itself. For to hope to produce an idea of light, or colour, by a sound, however formed, is to expect that sounds should be visible, or colours audible, and to make the ears do the office of all the other senses. Which is all one as to say, that we might taste, smell, and see by the ears; a sort of philosophy worthy only of Sancho Pança, who had the faculty to see Dulcinea by hearsay. And therefore he that has not before received into his mind, by the proper inlet, the simple idea which any word stands for, can never come to know the signification of that word by any other words or sounds whatsoever, put together

according to any rules of definition. The only way is by applying to his senses the proper object, and so producing that idea in him, for which he has learned the name already. A studious blind man, who had mightily beat his head about visible objects, and made use of the explication of his books and friends, to understand those names of light and colours, which often came in his way, bragged one day, that he now understood what scarlet signified. Upon which his friend demanding, what scarlet was? the blind man answered, It was like the sound of a trumpet. Just such an understanding of the name of any other simple idea will he have, who hopes to get it only from a definition, or other words made use of to explain it.

§ 12. *The contrary showed in complex ideas, by instances of a statue and rainbow.*

The case is quite otherwise in complex ideas; which consisting of several simple ones, it is in the power of words, standing for the several ideas that make that composition, to imprint complex ideas in the mind, which were never there before, and so make their names be understood. In such collections of ideas, passing under one name, definition, or the teaching the signification of one word by several others, has place, and may make us understand the names of things, which never came within the reach of our senses; and frame ideas suitable to those in other men's minds, when they use those names: provided that none of the terms of the definition stand for any such simple ideas, which he to whom the explication is made has never yet had in his thought. Thus the word statue may be explained to a blind man by other words, when picture cannot; his senses having given him the idea of figure, but not of colours, which therefore words cannot excite in him. This gained the prize to the painter against the statuary: each of which contending for the excellency

of his art ; and the statuary bragging that his was to be preferred, because it reached farther, and even those who had lost their eyes could yet perceive the excellency of it, the painter agreed to refer himself to the judgment of a blind man ; who being brought where there was a statue, made by the one, and a picture drawn by the other, he was first led to the statue, in which he traced with his hand all the lineaments of the face and body, and with great admiration applauded the skill of the workman. But being led to the picture, and having his hands laid upon it, was told, that now he touched the head, and then the forehead, eyes, nose, &c. as his hands moved over the parts of the picture on the cloth, without finding any the least distinction: whereupon he cried out, that certainly that must needs be a very admirable and divine piece of workmanship, which could represent to them all those parts, where he could neither feel nor perceive any thing.

§ 13.

He that should use the word rainbow to one who knew all those colours, but yet had never seen that phænomenon, would, by enumerating the figure, largeness, position and order of the colours, so well define that word, that it might be perfectly understood. But yet that definition, how exact and perfect soever, would never make a blind man understand it ; because several of the simple ideas that make that complex one, being such as he never received by sensation and experience, no words are able to excite them in his mind.

§ 14. *The same of complex ideas when to be made intelligible by words.*

Simple ideas, as has been showed, can only be got by experience, from those objects, which are proper to produce in us those perceptions. When by this means we have our minds stored with them, and know the names for them, then we are in a condition to

define, and by definition to understand the names of complex ideas, that are made up of them. But when any term stands for a simple idea, that a man has never yet had in his mind, it is impossible by any words to make known its meaning to him. When any term stands for an idea a man is acquainted with, but is ignorant that that term is the sign of it; there another name, of the same idea which he has been accustomed to, may make him understand its meaning. But in no case whatsoever is any name, of any simple idea, capable of a definition.

§ 15.—4. *Names of simple ideas least doubtful.*

Fourthly, But though the names of simple ideas, have not the help of definition to determine their signification, yet that hinders not but that they are generally less doubtful and uncertain, than those of mixed modes and substances: because they standing only for one simple perception, men, for the most part, easily and perfectly agree in their signification; and there is little room for mistake and wrangling about their meaning. He that knows once that whiteness is the name of that colour he has observed in snow or milk, will not be apt to misapply that word, as long as he retains that idea; which when he has quite lost, he is not apt to mistake the meaning of it, but perceives he understands it not. There is neither a multiplicity of simple ideas to be put together, which makes the doubtfulness in the names of mixed modes; nor a supposed, but an unknown real essence, with properties depending thereon, the precise number whereof is also unknown, which makes the difficulty in the names of substances. But, on the contrary, in simple ideas the whole signification of the name is known at once, and consists not of parts, whereof more or less being put in, the idea may be varied, and so the signification of name be obscure or uncertain.

§ 16.—5. *Simple ideas have few ascents in lineâ prædicamentali.*

Fifthly, This farther may be observed concerning simple ideas and their names, that they have but few ascents in lineâ prædicamentali (as they call it) from the lowest species to the summum genus. The reason whereof is, that the lowest species being but one simple idea, nothing can be left out of it; that so the difference being taken away, it may agree with some other thing in one idea common to them both; which, having one name, is the genus of the other two: *v. g.* there is nothing that can be left out of the idea of white and red, to make them agree in one common appearance, and so have one general name; as rationality being left out of the complex idea of man, makes it agree with brute, in the more general idea and name of animal: and therefore when to avoid unpleasant enumerations, men would comprehend both white and red, and several other such simple ideas, under one general name, they have been fain to do it by a word, which denotes only the way they get into the mind. For when white, red, and yellow, are all comprehended under the genus or name colour, it signifies no more but such ideas as are produced in the mind only by the sight, and have entrance only through the eyes. And when they would frame yet a more general term, to comprehend both colours and sounds, and the like simple ideas, they do it by a word that signifies all such as come into the mind only by one sense: and so the general term quality, in its ordinary acceptation, comprehends colours, sounds, tastes, smells, and tangible qualities, with distinction from extension, number, motion, pleasure and pain, which make impressions on the mind, and introduce their ideas by more senses than one.

§ 17.—6. *Names of simple ideas not at all arbitrary.*

Sixthly, The names of simple ideas, substances, and mixed modes have also this difference; that those of mixed modes stand for ideas perfectly arbitrary; those of substances are not perfectly so, but refer to a pattern, though with some latitude; and those of simple ideas are perfectly taken from the existence of things, and are not arbitrary at all. Which, what difference it makes in the significations of their names, we shall see in the following chapters.

The names of simple modes differ little from those of simple ideas.

CHAP. V.

OF THE NAMES OF MIXED MODES AND RELATIONS.

§ 1. *They stand for abstract ideas, as other general names.*

THE names of mixed modes being general, they stand, as has been shown, for sorts or species of things, each of which has its peculiar essence. The essences of these species also, as has been showed, are nothing but the abstract ideas in the mind, to which the name is annexed. Thus far the names and essences of mixed modes have nothing but what is common to them with other ideas: but if we take a little nearer survey of them, we shall find that they have something peculiar, which perhaps may deserve our attention.

§ 2.—1. *The ideas they stand for are made by the understanding.*

The first particularity I shall observe in them, is, that the abstract ideas, or, if you please, the essences

of the several species of mixed modes are made by the understanding, wherein they differ from those of simple ideas: in which sort the mind has no power to make any one, but only receives such as are presented to it, by the real existence of things, operating upon it.

§ 3.—2. *Made arbitrarily, and without patterns.*

In the next place, these essences of the species of mixed modes are not only made by the mind, but made very arbitrarily, made without patterns, or reference to any real existence. Wherein they differ from those of substances, which carry with them the supposition of some real being, from which they are taken, and to which they are conformable. But in its complex ideas of mixed modes, the mind takes a liberty not to follow the existence of things exactly. It unites and retains certain collections, as so many distinct specific ideas, whilst others, that as often occur in nature, and are as plainly suggested by outward things, pass neglected, without particular names or specifications. Nor does the mind, in these of mixed modes, as in the complex idea of substances, examine them by the real existence of things; or verify them by patterns, containing such peculiar compositions in nature. To know whether his idea of adultery or incest be right, will a man seek it any where amongst things existing? Or is it true, because any one has been witness to such an action? No: but it suffices here, that men have put together such a collection into one complex idea, that makes the archetype and specific idea, whether ever any such action were committed in *rerum natura* or no.

§ 4. *How this is done.*

To understand this right, we must consider wherein this making of these complex ideas consists; and that is not in the making any new idea, but putting together those which the mind had before. Wherein the mind does these three things: first, it chooses a

certain number : secondly, it gives them connexion, and makes them into one idea : thirdly, it ties them together by a name. If we examine how the mind proceeds in these, and what liberty it takes in them, we shall easily observe how these essences of the species of mixed modes are the workmanship of the mind ; and consequently, that the species themselves are of men's making.

§ 5. *Evidently arbitrary, in that the idea is often before the existence.*

Nobody can doubt, but that these ideas of mixed modes are made by a voluntary collection of ideas put together in the mind, independent from any original patterns in nature, who will but reflect that this sort of complex ideas may be made, abstracted, and have names given them, and so a species be constituted, before any one individual of that species ever existed. Who can doubt but the ideas of sacrilege or adultery might be framed in the minds of men, and have names given them ; and so these species of mixed modes be constituted, before either of them was ever committed ; and might be as well discoursed of and reasoned about, and as certain truths discovered of them, whilst yet they had no being but in the understanding, as well as now, that they have but too frequently a real existence ? Whereby it is plain, how much the sorts of mixed modes are the creatures of the understanding, where they have a being as subservient to all the ends of real truth and knowledge, as when they really exist : and we cannot doubt but lawmakers have often made laws about species of actions, which were only the creatures of their own understandings ; beings that had no other existence but in their own minds. And I think nobody can deny, but that the resurrection was a species of mixed modes in the mind, before it really existed.

§ 6. *Instances ; murder, incest, stabbing.*

To see how arbitrarily these essences of mixed modes are made by the mind, we need but take a view of almost any of them. A little looking into them will satisfy us, that it is the mind that combines several scattered independent ideas into one complex one, and, by the common name it gives them, makes them the essence of a certain species, without regulating itself by any connexion they have in nature. For what greater connexion in nature has the idea of a man, than the idea of a sheep, with killing ; that this is made a particular species of action, signified by the word murder, and the other not ? Or what union is there in nature between the idea of the relation of a father with killing, than that of a son, or neighbour ; that those are combined into one complex idea, and thereby made the essence of the distinct species parricide, whilst the other make no distinct species at all ? But though they have made killing a man's father, or mother, a distinct species from killing his son, or daughter ; yet in some other cases, son and daughter are taken in two, as well as father and mother ; and they are all equally comprehended in the same species, as in that of incest. Thus the mind in mixed modes arbitrarily unites into complex ideas such as it finds convenient ; whilst others that have altogether as much union in nature, are left loose, and never combined into one idea, because they have no need of one name. It is evident then, that the mind by its free choice gives a connexion to a certain number of ideas, which in nature have no more union with one another, than others that it leaves out : why else is the part of the weapon, the beginning of the wound is made with, taken notice of to make the distinct species called stabbing, and the figure and matter of the weapon left out ? I do not say, this is done without reason, as we shall see more

by and by ; but this I say, that it is done by the free choice of the mind, pursuing its own ends ; and that therefore these species of mixed modes are the workmanship of the understanding : and there is nothing more evident, than that, for the most part, in the framing these ideas the mind searches not its patterns in nature, nor refers the ideas it makes to the real existence of things ; but puts such together, as may best serve its own purposes, without tying itself to a precise imitation of any thing that really exists.

§ 7. *But still subservient to the end of language.*

But though these complex ideas, or essences of mixed modes, depend on the mind, and are made by it with great liberty ; yet they are not made at random, and jumbled together without any reason at all. Though these complex ideas be not always copied from nature, yet they are always suited to the end for which abstract ideas are made : and though they be combinations made of ideas that are loose enough, and have as little union in themselves, as several other to which the mind never gives a connexion that combines them into one idea ; yet they are always made for the convenience of communication, which is the chief end of language. The use of language is by short sounds to signify with ease and dispatch general conceptions : wherein not only abundance of particulars may be contained, but also a great variety of independent ideas collected into one complex one. In the making therefore of the species of mixed modes, men have had regard only to such combinations as they had occasion to mention one to another. Those they have combined into distinct complex ideas, and given names to ; whilst others, that in nature have as near an union, are left loose and unregarded. For to go no farther than human actions themselves, if they would make distinct abstract ideas of all the varieties might be observed in them, the number must be infinite, and the

memory confounded with the plenty, as well as overcharged to little purpose. It suffices that men make and name so many complex ideas of these mixed modes, as they find they have occasion to have names for, in the ordinary occurrence of their affairs. If they join to the idea of killing the idea of father, or mother, and so make a distinct species from killing a man's son or neighbour, it is because of the different heinousness of the crime, and the distinct punishment is due to the murdering a man's father and mother, different from what ought to be inflicted on the murder of a son or neighbour; and therefore they find it necessary to mention it by a distinct name, which is the end of making that distinct combination. But though the ideas of mother and daughter are so differently treated, in reference to the idea of killing, that the one is joined with it, to make a distinct abstract idea with a name, and so a distinct species, and the other not; yet in respect of carnal knowledge, they are both taken in under incest: and that still for the same convenience of expressing under one name, and reckoning of one species, such unclean mixtures as have a peculiar turpitude beyond others; and this to avoid circumlocutions and tedious descriptions.

§ 8. *Whereof the intranslatable words of divers languages are a proof.*

A moderate skill in different languages will easily satisfy one of the truth of this, it being so obvious to observe great store of words in one language, which have not any that answer them in another. Which plainly shows, that those of one country, by their customs and manner of life, have found occasion to make several complex ideas, and given names to them, which others never collected into specific ideas. This could not have happened, if these species were the steady workmanship of nature, and not collections made and abstracted by the mind, in order to nam-

ing, and for the convenience of communication. The terms of our law, which are not empty sounds, will hardly find words that answer them in the Spanish or Italian, no scanty languages; much less, I think, could any one translate them into the Caribbee or Westœ tongues: and the Versura of the Romans, or Corban of the Jews, have no words in other languages to answer them: the reason whereof is plain, from what has been said. Nay, if we look a little more nearly into this matter, and exactly compare different languages, we shall find, that though they have words which in translations and dictionaries are supposed to answer one another, yet there is scarce one of ten amongst the names of complex ideas, especially of mixed modes, that stands for the same precise idea, which the word does that in dictionaries it is rendered by. There are no ideas more common, and less compounded, than the measures of time, extension, and weight, and the Latin names, hora, pes, libra, are without difficulty rendered by the English names, hour, foot, and pound: but yet there is nothing more evident, than that the ideas a Roman annexed to these Latin names, were very far different from those which an Englishman expresses by those English ones. And if either of these should make use of the measures that those of the other language designed by their names, he would be quite out in his account. These are too sensible proofs to be doubted; and we shall find this much more so, in the names of more abstract and compounded ideas, such as are the greatest part of those which make up moral discourses: whose names, when men come curiously to compare with those they are translated into, in other languages, they will find very few of them exactly to correspond in the whole extent of their significations.

§ 9 *This shows species to be made for communication.*

The reason why I take so particular notice of this, is, that we may not be mistaken about genera and species, and their essences, as if they were things regularly and constantly made by nature, and had a real existence in things; when they appear, upon a more wary survey, to be nothing else but an artifice of the understanding, for the easier signifying such collections of ideas, as it should often have occasion to communicate by one general term; under which divers particulars, as far forth as they agreed to that abstract idea, might be comprehended. And if the doubtful signification of the word species may make it sound harsh to some, that I say the species of mixed modes are made by the understanding; yet, I think, it can by nobody be denied, that it is the mind makes those abstract complex ideas, to which specific names are given. And if it be true, as it is, that the mind makes the patterns for sorting and naming of things, I leave it to be considered who makes the boundaries of the sort or species; since with me species and sort have no other difference than that of a Latin and English idiom.

§ 10. *In mixed modes it is the name that ties the combination together, and makes it a species.*

The near relation that there is between species, essences, and their general name, at least in mixed modes, will farther appear, when we consider that it is the name that seems to preserve those essences, and give them their lasting duration. For the connexion between the loose parts of those complex ideas being made by the mind, this union, which has no particular foundation in nature, would cease again, were there not something that did, as it were, hold it together, and keep the parts from scattering. Though therefore it be the mind that makes the collection, it is the name which is as it were the knot that ties them fast together. What a vast variety

of different ideas does the word triumphus hold together, and deliver to us as one species? Had this name been never made, or quite lost, we might, no doubt, have had descriptions of what passed in that solemnity: but yet, I think, that which holds those different parts together, in the unity of one complex idea, is that very word annexed to it; without which the several parts of that would no more be thought to make one thing, than any other show, which having never been made but once, had never been united into one complex idea, under one denomination. How much therefore, in mixed modes, the unity necessary to any essence depends on the mind, and how much the continuation and fixing of that unity depends on the name in common use annexed to it, I leave to be considered by those who look upon essences and species as real established things in nature.

§ 11.

Suitable to this, we find, that men speaking of mixed modes, seldom imagine or take any other for species of them, but such as are set out by name: because they being of man's making only, in order to naming, no such species are taken notice of, or supposed to be, unless a name be joined to it, as the sign of man's having combined into one idea several loose ones; and by that name giving a lasting union to the parts, which could otherwise cease to have any, as soon as the mind laid by that abstract idea, and ceased actually to think on it. But when a name is once annexed to it, wherein the parts of that complex idea have a settled and permanent union; then is the essence as it were established, and the species looked on as complete. For to what purpose should the memory charge itself with such compositions, unless it were by abstraction to make them general? And to what purpose make them general, unless it

were that they might have general names for the convenience of discourse and communication? Thus we see, that killing a man with a sword or a hatchet, are looked on as no distinct species of action: but if the point of the sword first enter the body, it passes for a distinct species, where it has a distinct name; as in England, in whose language it is called stabbing: but in another country, where it has not happened to be specified under a peculiar name, it passes not for a distinct species. But in the species of corporeal substances, though it be the mind that makes the nominal essence; yet since those ideas which are combined in it are supposed to have an union in nature, whether the mind joins them or no, therefore those are looked on as distinct names, without any operation of the mind, either abstracting or giving a name to that complex idea.

§ 12. *For the originals of mixed modes, we look no farther than the mind, which also shows them to be the workmanship of the understanding.*

Conformable also to what has been said concerning the essences of the species of mixed modes, that they are the creatures of the understanding, rather than the works of nature; conformable, I say, to this, we find that their names lead our thoughts to the mind, and no farther. When we speak of justice, or gratitude, we frame to ourselves no imagination of any thing existing, which we would conceive; but our thoughts terminate in the abstract ideas of those virtues, and look not farther: as they do, when we speak of a horse, or iron, whose specific ideas we consider not, as barely in the mind, but as in things themselves, which afford the original patterns of those ideas. But in mixed modes, at least the most considerable parts of them, which are moral beings, we consider the original patterns as being in the mind; and to those we refer for the distinguishing of particular beings under names. And hence I think it is,

that these essences of the species of mixed modes are by a more particular name called notions, as, by a peculiar right, appertaining to the understanding.

§ 13. *Their being made by the understanding without patterns, shows the reason why they are so compounded.*

Hence likewise we may learn, why the complex ideas of mixed modes are commonly more compounded and decomposed, than those of natural substances. Because they being the workmanship of the understanding, pursuing only its own ends, and the conveniency of expressing in short those ideas it would make known to another, it does with great liberty unite often into one abstract idea things that in their nature have no coherence; and so, under one term, bundle together a great variety of compounded and decomposed ideas. Thus the name of procession, what a great mixture of independent ideas of persons, habits, tapers, orders, motions, sounds, does it contain in that complex one, which the mind of man has arbitrarily put together, to express by that one name? Whereas the complex ideas of the sorts of substances are usually made up of only a small number of simple ones; and in the species of animals, these two, viz. shape and voice, commonly make the whole nominal essence.

§ 14. *Names of mixed modes stand always for their real essences.*

Another thing we may observe from what has been said, is, that the names of mixed modes always signify (when they have any determined signification) the real essences of their species. For these abstract ideas being the workmanship of the mind, and not referred to the real existence of things, there is no supposition of any thing more signified by that name, but barely that complex idea the mind itself has formed, which is all it would have expressed by it: and is that on which all the properties of the species de-

pend, and from which alone they all flow : and so in these the real and nominal essence is the same ; which of what concernment it is to the certain knowledge of general truth, we shall see hereafter.

§ 15. *Why their names are usually got before their ideas.*

This also may show us the reason, why for the most part the names of mixed modes are got, before the ideas they stand for are perfectly known. Because there being no species of these ordinarily taken notice of, but what have names ; and those species, or rather their essences, being abstract complex ideas made arbitrarily by the mind ; it is convenient, if not necessary, to know the names, before one endeavour to frame these complex ideas : unless a man will fill his head with a company of abstract complex ideas, which others having no names for, he has nothing to do with, but to lay by and forget again. I confess, that in the beginning of languages it was necessary to have the idea, before one gave it the name : and so it is still, where making a new complex idea, one also, by giving it a new name, makes it a new word. But this concerns not languages made, which have generally pretty well provided for ideas, which men have frequent occasion to have and communicate : and in such, I ask, whether it be not the ordinary method, that children learn the names of mixed modes, before they have their ideas ? What one of a thousand ever frames the abstract ideas of glory and ambition, before he has heard the names of them ? In simple ideas and substances I grant it is otherwise ; which being such ideas as have a real existence and union in nature, the ideas and names are got one before the other, as it happens.

§ 16. *Reason of my being so large on this subject.*

What has been said here of mixed modes, is with very little difference applicable also to relations ; which, since every man himself may observe, I may

spare myself the pains to enlarge on : especially, since what I have here said concerning words in this third book, will possibly be thought by some to be much more than what so slight a subject required. I allow it might be brought into a narrower compass : but I was willing to stay my reader on an argument that appears to me new, and a little out of the way, (I am sure it is one I thought not of when I began to write) that by searching it to the bottom, and turning it on every side, some part or other might meet with every one's thoughts, and give occasion to the most averse or negligent to reflect on a general miscarriage ; which, though of great consequence, is little taken notice of. When it is considered what a pudder is made about essences, and how much all sorts of knowledge, discourse, and conversation are pestered and disordered by the careless and confused use and application of words, it will perhaps be thought worth while thoroughly to lay it open. And I shall be pardoned if I have dwelt long on an argument which I think therefore needs to be inculcated ; because the faults, men are usually guilty of in this kind, are not only the greatest hindrances of true knowledge, but are so well thought of as to pass for it. Men would often see what a small pittance of reason and truth, or possibly none at all, is mixed with those huffing opinions they are swelled with, if they would but look beyond fashionable sounds, and observe what ideas are, or are not comprehended under those words with which they are so armed at all points, and with which they so confidently lay about them. I shall imagine I have done some service to truth, peace, and learning, if, by any enlargement on this subject, I can make men reflect on their own use of language ; and give them reason to suspect, that since it is frequent for others, it may also be possible for them to have sometimes very good and approved words in their mouths and writings, with very uncertain, lit-

tle, or no signification. And therefore it is not unreasonable for them to be wary herein themselves, and not to be unwilling to have them examined by others. With this design therefore I shall go on with what I have farther to say concerning this matter.

CHAP. VI.

OF THE NAMES OF SUBSTANCES.

§ 1. *The common names of substances stand for sorts.*

THE common names of substances, as well as other general terms, stand for sorts; which is nothing else but the being made signs of such complex ideas, wherein several particular substances do, or might agree, by virtue of which they are capable of being comprehended in one common conception, and signified by one name. I say, do or might agree: for though there be but one sun existing in the world, yet the idea of it being abstracted, so that more substances (if there were several) might each agree in it; it is as much a sort, as if there were as many suns as there are stars. They want not their reasons who think there are, and that each fixed star would answer the idea the name sun stands for, to one who was placed in a due distance; which, by the way, may show us how much the sorts, or, if you please, genera and species of things (for those Latin terms signify to me no more than the English word sort) depend on such collections of ideas as men have made, and not on the real nature of things;

since it is not impossible but that, in propriety of speech, that might be a sun to one, which is a star to another.

§ 2. *The essence of each sort is the abstract idea.*

The measure and boundary of each sort, or species, whereby it is constituted that particular sort, and distinguished from others, is that we call its essence, which is nothing but that abstract idea to which the name is annexed: so that every thing contained in that idea is essential to that sort. This, though it be all the essence of natural substances that we know, or by which we distinguish them into sorts; yet I call it by a peculiar name, the nominal essence, to distinguish it from the real constitution of substances, upon which depends this nominal essence, and all the properties of that sort; which therefore, as has been said, may be called the real essence: *v. g.* the nominal essence of gold is that complex idea the word gold stands for, let it be, for instance, a body yellow, of a certain weight, malleable, fusible, and fixed. But the real essence is the constitution of the insensible parts of that body, on which those qualities, and all the other properties of gold depend. How far these two are different, though they are both called essence, is obvious at first sight to discover.

§ 3. *The nominal and real essence different.*

For though perhaps voluntary motion, with sense and reason joined to a body of a certain shape, be the complex idea to which I, and others, annex the name man, and so be the nominal essence of the species so called; yet nobody will say that complex idea is the real essence and source of all those operations which are to be found in any individual of that sort. The foundation of all those qualities, which are the ingredients of our complex idea, is something quite different; and had we such a knowledge of that constitution of man, from which his faculties of moving,

sensation, and reasoning, and other powers flow, and on which his so regular shape depends, as it is possible angels have, and it is certain his Maker has; we should have a quite other idea of his essence than what now is contained in our definition of that species, be it what it will: and our idea of any individual man would be as far different from what it is now, as is his who knows all the springs and wheels, and other contrivances within, of the famous clock at Strasburgh, from that which a gazing countryman has for it, who barely sees the motion of the hand, and hears the clock strike, and observes only some of the outward appearances.

§ 4. *Nothing essential to individuals.*

That essence, in the ordinary use of the word, relates to sorts; and that it is considered in particular beings no farther than as they are ranked into sorts; appears from hence: that take but away the abstract ideas, by which we sort individuals, and rank them under common names, and then the thought of any thing essential to any of them instantly vanishes; we have no notion of the one without the other; which plainly shows their relation. It is necessary for me to be as I am; God and nature has made me so: but there is nothing I have is essential to me. An accident, or disease, may very much alter my colour, or shape; a fever, or fall, may take away my reason or memory, or both, and an apoplexy leave neither sense nor understanding, no nor life. Other creatures of my shape may be made with more and better, or fewer and worse faculties than I have; and others may have reason and sense in a shape and body very different from mine. None of these are essential to the one, or the other, or to any individual whatever, till the mind refers it to some sort or species of things; and then presently, according to the abstract idea of that sort, something is found essential. Let any one examine his own thoughts, and he will find that as soon

as he supposes or speaks of essential, the consideration of some species, or the complex idea, signified by some general name, comes into his mind ; and it is in reference to that, that this or that quality is said to be essential. So that if it be asked, whether it be essential to me or any other particular corporeal being to have reason ? I say no ; no more than it is essential to this white thing I write on to have words in it. But if that particular being be to be counted of the sort man, and to have the name man given it, then reason is essential to it, supposing reason to be a part of the complex idea the name man stands for : as it is essential to this thing I write on to contain words, if I will give it the name treatise, and rank it under that species. So that essential, and not essential, relate only to our abstract ideas, and the names annexed to them ; which amounts to no more but this, that whatever particular thing has not in it those qualities, which are contained in the abstract idea, which any general term stands for, cannot be ranked under that species, nor be called by that name, since that abstract idea is the very essence of that species.

§ 5.

Thus, if the idea of body, with some people, be bare extension or space, then solidity is not essential to body : if others make the idea, to which they give the name body, to be solidity and extension, then solidity is essential to body. That therefore, and that alone, is considered as essential, which makes a part of the complex idea the name of a sort stands for, without which no particular thing can be reckoned of that sort, nor be entitled to that name. Should there be found a parcel of matter that had all the other qualities that are in iron, but wanted obedience to the loadstone ; and would neither be drawn by it, nor receive direction from it ; would any one question, whether it wanted any thing essential ? It would be absurd to ask, Whether a thing really existing

wanted any thing essential to it? Or could it be demanded, Whether this made an essential or specific difference or no; since we have no other measure of essential or specific but our abstract ideas? And to talk of specific differences in nature, without reference to general ideas and names, is to talk unintelligibly. For I would ask any one, What is sufficient to make an essential difference in nature, between any two particular beings, without any regard had to some abstract idea, which is looked upon as the essence and standard of a species? All such patterns and standards being quite laid aside, particular beings, considered barely in themselves, will be found to have all their qualities equally essential; and every thing, in each individual, will be essential to it, or, which is more, nothing at all. For though it maybe reasonable to ask, Whether obeying the magnet be essential to iron? yet, I think, it is very improper and insignificant to ask, Whether it be essential to the particular parcel of matter I cut my pen with, without considering it under the name iron, or as being of a certain species? And if, as has been said, our abstract ideas, which have names annexed to them, are the boundaries of species, nothing can be essential but what is contained in those ideas.

§ 6.

It is true, I have often mentioned a real essence, distinct in substances from those abstract ideas of them, which I call their nominal essence. By this real essence, I mean the real constitution of any thing, which is the foundation of all those properties that are combined in, and are constantly found to co-exist with the nominal essence; that particular constitution which every thing has within itself, without any relation to any thing without it. But essence, even in this sense, relates to a sort, and supposes a species; for being that real constitution, on which the properties depend, it necessarily supposes a sort of things,

properties belonging only to species, and not to individuals; *v. g.* supposing the nominal essence of gold to be a body of such a peculiar colour and weight, with malleability and fusibility, the real essence is that constitution of the parts of matter, on which these qualities and their union depend; and is also the foundation of its solubility in aqua regia and other properties accompanying that complex idea. Here are essences and properties, but all upon supposition of a sort or general abstract idea, which is considered as immutable; but there is no individual parcel of matter, to which any of these qualities are so annexed, as to be essential to it, or inseparable from it. That which is essential belongs to it as a condition, whereby it is of this or that sort; but take away the consideration of its being ranked under the name of some abstract idea, and then there is nothing necessary to it, nothing inseparable from it. Indeed, as to the real essences of substances, we only suppose their being, without precisely knowing what they are: but that which annexes them still to the species, is the nominal essence, of which they are the supposed foundation and cause.

§ 7. *The nominal essence bounds the species.*

The next thing to be considered, is, by which of those essences it is that substances are determined into sorts, or species; and that, it is evident, is by the nominal essence. For it is that alone that the name, which is the mark of the sort, signifies. It is impossible therefore that any thing should determine the sorts of things, which we rank under general names, but that idea which that name is designed as a mark for; which is that, as has been shewn, which we call nominal essence. Why do we say, this is a horse, that a mule; this is an animal, that an herb? How comes any particular thing to be of this or that sort, but because it has that nominal essence, or, which is all one, agrees to that abstract idea that

name is annexed to? And I desire any one but to reflect on his own thoughts, when he hears or speaks any of those, or other names of substances, to know what sort of essences they stand for.

§ 8.

And that the species of things to us are nothing but the ranking them under distinct names, according to the complex ideas in us, and not according to precise, distinct, real essences in them; is plain from hence, that we find many of the individuals that are ranked into one sort, called by one common name, and so received as being of one species, have yet qualities depending on their real constitutions, as far different one from another, as from others, from which they are accounted to differ specifically. This, as it is easy to be observed by all who have to do with natural bodies; so chemists especially are often, by sad experience, convinced of it, when they, sometimes in vain, seek for the same qualities in one parcel of sulphur, antimony or vitriol, which they have found in others. For though they are bodies of the same species, having the same nominal essence, under the same name; yet do they often, upon severe ways of examination, betray qualities so different one from another, as to frustrate the expectation and labour of very wary chemists. But if things were distinguished into species, according to their real essences, it would be as impossible to find different properties in any two individual substances of the same species, as it is to find different properties in two circles, or two equilateral triangles. That is properly the essence to us, which determines every particular to this or that class; or, which is the same thing, to this or that general name; and what can that be else, but that abstract idea, to which that name is annexed? and so has, in truth, a reference, not so much to the being of particular things, as to their general denominations.

§ 9. *Not the real essence, which we know not.*

Nor indeed can we rank and sort things, and consequently (which is the end of sorting) denominate them by their real essences, because we know them not. Our faculties carry us no farther towards the knowledge and distinction of substances, than a collection of those sensible ideas which we observe in them; which, however made with the greatest diligence and exactness we are capable of, yet is more remote from the true internal constitution, from which those qualities flow, than, as I said, a countryman's idea is from the inward contrivance of that famous clock at Strasburgh, whereof he only sees the outward figure and motions. There is not so contemptible a plant or animal, that does not confound the most enlarged understanding. Though the familiar use of things about us take off our wonder; yet it cures not our ignorance. When we come to examine the stones we tread on, or the iron we daily handle, we presently find we know not their make, and can give no reason of the different qualities we find in them. It is evident the internal constitution, whereon their properties depend, is unknown to us. For to go no farther than the grossest and most obvious we can imagine amongst them, what is that texture of parts, that real essence, that makes lead and antimony fusible; wood and stones not? What makes lead and iron malleable, antimony and stones not? And yet how infinitely these come short of the fine contrivances, and unconceivable real essences of plants or animals, every one knows. The workmanship of the all-wise and powerful God, in the great fabric of the universe, and every part thereof, farther exceeds the capacity and comprehension of the most inquisitive and intelligent man, than the best contrivance of the most ingenious man doth the conceptions of the most ignorant of rational creatures. Therefore we in vain pretend to range things into

sorts, and dispose them into certain classes, under names, by their real essences, that are so far from our discovery or comprehension. A blind man may as soon sort things by their colours, and he that has lost his smell, as well distinguish a lily and a rose by their odours, as by those internal constitutions which he knows not. He that thinks he can distinguish sheep and goats by their real essences, that are unknown to him, may be pleased to try his skill in those species, called cassiowary and querechinchio; and by their internal real essences determine the boundaries of those species, without knowing the complex idea of sensible qualities, that each of those names stand for, in the countries where those animals are to be found.

§ 10. *Not substantial forms, which we know less.*

Those therefore who have been taught, that the several species of substances had their distinct internal substantial forms; and that it was those forms which made the distinction of substances into their true species and genera; were led yet farther out of the way, by having their minds set upon fruitless inquiries after substantial forms, wholly unintelligible, and whereof we have scarce so much as any obscure or confused conception in general.

§ 11. *That the nominal essence is that whereby we distinguish species, farther evident from spirits.*

That our ranking and distinguishing natural substances into species, consists in the nominal essences the mind makes, and not in the real essences to be found in the things themselves, is farther evident from our ideas of spirits. For the mind getting, only by reflecting on its own operations, those simple ideas which it attributes to spirits, it hath, or can have no other notion of spirit, but by attributing all those operations, it finds in itself, to a sort of beings, without consideration of matter. And even the most advanced notion we have of God, is but attributing the

same simple ideas which we have got from reflection on what we find in ourselves, and which we conceive to have more perfection in them, than would be in their absence; attributing, I say, those simple ideas to him in an unlimited degree. Thus having got, from reflecting on ourselves, the idea of existence, knowledge, power, and pleasure, each of which we find it better to have than to want; and the more we have of each, the better: joining all these together, with infinity to each of them, we have the complex idea of an eternal, omniscient, omnipotent, infinitely wise and happy Being. And though we are told, that there are different species of angels; yet we know not how to frame distinct specific ideas of them; not out of any conceit that the existence of more species than one of spirits is impossible, but because having no more simple ideas (nor being able to frame more) applicable to such beings, but only those few taken from ourselves, and from the actions of our own minds in thinking, and being delighted, and moving several parts of our bodies, we can no otherwise distinguish in our conceptions the several species of spirits one from another, but by attributing those operations and powers, we find in ourselves, to them in a higher or lower degree; and so have no very distinct and specific ideas of spirits, except only of God, to whom we attribute both duration, and all those other ideas with infinity; to the other spirits, with limitation. Nor, as I humbly conceive, do we, between God and them in our ideas, put any difference by any number of simple ideas, which we have of one, and not of the other, but only that of infinity. All the particular ideas of existence, knowledge, will, power, and motion, &c. being ideas derived from the operations of our minds; we attribute all of them to all sorts of spirits, with the difference only of degrees, to the utmost we can imagine, even infinity, when we would frame, as well as we can, an idea

of the first being; who yet, it is certain, is infinitely more remote, in the real excellency of his nature, from the highest and perfectest of all created beings, than the greatest man, nay purest seraph, is from the most contemptible part of matter; and consequently must infinitely exceed what our narrow understandings can conceive of him.

§ 12. *Whereof there are probably numberless species.*

It is not impossible to conceive, nor repugnant to reason, that there may be many species of spirits, as much separated and diversified one from another by distinct properties whereof we have no ideas, as the species of sensible things are distinguished one from another by qualities which we know, and observe in them. That there should be more species of intelligent creatures above us, than there are of sensible and material below us, is probable to me from hence; that in all the visible corporeal world, we see no chasms or gaps. All quite down from us the descent is by easy steps, and a continued series of things, that in each remove differ very little one from the other. There are fishes that have wings, and are not strangers to the airy region; and there are some birds that are inhabitants of the water, whose blood is cold as fishes, and their flesh so like in taste, that the scrupulous are allowed them on fish-days. There are animals so near of kin both to birds and beasts, that they are in the middle between both: amphibious animals link the terrestrial and aquatic together; seals live at land and sea, and porpoises have the warm blood and entrails of a hog, not to mention what is confidently reported of mermaids or sea-men. There are some brutes, that seem to have as much knowledge and reason, as some that are called men; and the animal and vegetable kingdoms are so nearly joined, that if you will take the lowest of one, and the highest of the other, there will scarce be perceived any great difference between them; and so on, till

we come to the lowest and the most inorganic parts of matter, we shall find every-where, that the several species are linked together, and differ but in almost insensible degrees. And when we consider the infinite power and wisdom of the Maker, we have reason to think, that it is suitable to the magnificent harmony of the universe, and the great design and infinite goodness of the architect, that the species of creatures should also, by gentle degrees, ascend upward from us toward his infinite perfection, as we see they gradually descend from us downwards; which if it be probable, we have reason then to be persuaded, that there are far more species of creatures above us, than there are beneath: we being, in degrees of perfection, much more remote from the infinite being of God, than we are from the lowest state of being, and that which approaches nearest to nothing. And yet of all those distinct species, for the reasons above said, we have no clear distinct ideas.

§ 13. *The nominal essence that of the species, proved from water and ice.*

But to return to the species of corporeal substances. If I should ask any one, whether ice and water were two distinct species of things, I doubt not but I should be answered in the affirmative: and it cannot be denied, but he that says they are two distinct species is in the right. But if an Englishman, bred in Jamaica, who perhaps had never seen nor heard of ice, coming into England in the winter, find the water, he put in his bason at night, in a great part frozen in the morning, and not knowing any peculiar name it had, should call it hardened water; I ask, whether this would be a new species to him different from water? And, I think, it would be answered here, it would not be to him a new species, no more than congealed jelly, when it is cold, is a distinct species from the same jelly fluid and warm; or than liquid gold, in the furnace, is a distinct spe-

cies from hard gold in the hands of a workman. And if this be so, it is plain, that our distinct species are nothing but distinct complex ideas, with distinct names annexed to them. It is true, every substance that exists has its peculiar constitution, whereon depend those sensible qualities and powers we observe in it; but the ranking of things into species, which is nothing but sorting them under several titles, is done by us according to the ideas that we have of them: which though sufficient to distinguish them by names, so that we may be able to discourse of them, when we have them not present before us; yet if we suppose it to be done by their real internal constitutions, and that things existing are distinguished by nature into species, by real essences, according as we distinguish them into species by names, we shall be liable to great mistakes.

§ 14. *Difficulties against a certain number of real essences.*

To distinguish substantial beings into species, according to the usual supposition, that there are certain precise essences or forms of things, whereby all the individuals existing are by nature distinguished into species, these things are necessary.

§ 15.

First, To be assured that nature, in the production of things, always designs them to partake of certain regulated established essences, which are to be the models of all things to be produced. This, in that crude sense it is usually proposed, would need some better explication before it can fully be assented to.

§ 16.

Secondly, It would be necessary to know whether nature always attains that essence it designs in the production of things. The irregular and monstrous births, that in divers sorts of animals have been observed, will always give us reason to doubt of one or both of these.

§ 17.

Thirdly, It ought to be determined whether those we call monsters be really a distinct species, according to the scholastic notion of the word species; since it is certain, that every thing that exists has its particular constitution: and yet we find that some of these monstrous productions have few or none of those qualities, which are supposed to result from, and accompany the essence of that species, from whence they derive their originals, and to which, by their descent, they seem to belong.

§ 18. *Our nominal essences of substances not perfect collections of properties.*

Fourthly, The real essences of those things, which we distinguish into species, and as so distinguished we name, ought to be known; *i. e.* we ought to have ideas of them. But since we are ignorant in these four points, the supposed real essences of things stand us not in stead for the distinguishing substances into species.

§ 19.

Fifthly, The only imaginable help in this case would be, that having framed perfect complex ideas of the properties of things, flowing from their different real essences, we should thereby distinguish them into species. But neither can this be done; for being ignorant of the real essence itself, it is impossible to know all those properties that flow from it, and are so annexed to it, that any one of them being away, we may certainly conclude, that that essence is not there, and so the thing is not of that species. We can never know what is the precise number of properties depending on the real essence of gold, any one of which failing, the real essence of gold, and consequently gold, would not be there, unless we knew the real essence of gold itself, and by that determined that species. By the word gold here, I must be understood to design a particular piece of

matter; *v. g.* the last guinea that was coined. For if it should stand here in its ordinary signification for that complex idea, which I or any one else calls gold; *i. e.* for the nominal essence of gold, it would be jargon: so hard is it to show the various meaning and imperfection of words, when we have nothing else but words to do it by.

§ 20.

By all which it is clear, that our distinguishing substances into species by names, is not at all founded on their real essences; nor can we pretend to range and determine them exactly into species, according to internal essential differences.

§ 21. *But such a collection as our name stands for.*

But since, as has been remarked, we have need of general words, though we know not the real essences of things; all we can do is to collect such a number of simple ideas, as by examination we find to be united together in things existing, and therefore to make one complex idea. Which though it be not the real essence of any substance that exists, is yet the specific essence, to which our name belongs, and is convertible with it; by which we may at least try the truth of these nominal essences. For example, there be that say, that the essence of body is extension: if it be so, we can never mistake in putting the essence of any thing for the thing itself. Let us then in discourse put extension for body; and when we would say that body moves, let us say that extension moves, and see how ill it would look. He that should say that one extension by impulse moves another extension, would, by the bare expression, sufficiently show the absurdity of such a notion. The essence of any thing, in respect of us, is the whole complex idea, comprehended and marked by that name; and in substances, besides the several distinct simple ideas that make them up, the confused one of substance, or of an unknown support and cause of their union, is

always a part: and therefore the essence of body is not bare extension, but an extended solid thing: and so to say an extended solid thing moves, or impels another, is all one, and as intelligible as to say, body moves or impels. Likewise to say, that a rational animal is capable of conversation, is all one as to say a man. But no one will say, that rationality is capable of conversation, because it makes not the whole essence to which we give the name man.

§ 22. *Our abstract ideas are to us the measures of species: instance in that of man.*

There are creatures in the world that have shapes like ours, but are hairy, and want language and reason. There are naturals amongst us that have perfectly our shape, but want reason, and some of them language too. There are creatures, as it is said (*“sit fides penes authorem,”* but there appears no contradiction that there should be such) that, with language and reason, and a shape in other things agreeing with ours, have hairy tails; others where the males have no beards, and others where the females have. If it be asked, whether these be all men or no, all of human species? It is plain, the question refers only to the nominal essence: for those of them to whom the definition of the word man, or the complex idea signified by that name, agrees, are men, and the other not. But if the inquiry be made concerning the supposed real essence, and whether the internal constitution and frame of these several creatures be specifically different, it is wholly impossible for us to answer, no part of that going into our specific idea; only we have reason to think, that where the faculties or outward frame so much differs, the internal constitution is not exactly the same. But what difference in the internal real constitution makes a specific difference, it is in vain to inquire; whilst our measures of species be, as they are, only our abstract ideas, which we know; and not that internal constitution, which makes no

part of them. Shall the difference of hair only on the skin, be a mark of a different internal specific constitution between a changeling and a drill, when they agree in shape, and want of reason and speech? And shall not the want of reason and speech be a sign to us of different real constitutions and species between a changeling and a reasonable man? And so of the rest, if we pretend that distinction of species or sorts is fixedly established by the real frame and secret constitutions of things.

§ 23. *Species not distinguished by generation.*

Nor let any one say, that the power of propagation in animals by the mixture of male and female, and in plants by seeds, keeps the supposed real species distinct and entire. For granting this to be true, it would help us in the distinction of the species of things no farther than the tribes of animals and vegetables. What must we do for the rest? But in those too it is not sufficient: for if history lie not, women have conceived by drills; and what real species, by that measure, such a production will be in nature, will be a new question: and we have reason to think this is not impossible, since mules and juments, the one from the mixture of an ass and a mare, the other from the mixture of a bull and a mare, are so frequent in the world. I once saw a creature that was the issue of a cat and a rat, and had the plain marks of both about it; wherein nature appeared to have followed the pattern of neither sort alone, but to have jumbled them together. To which, he that shall add the monstrous productions that are so frequently to be met with in nature, will find it hard, even in the race of animals, to determine by the pedigree of what species every animal's issue is; and be at a loss about the real essence, which he thinks certainly conveyed by generation, and has alone a right to the specific name. But farther, if the species of animals and plants are to be distin-

guished only by propagation, must I go to the Indies to see the sire and dam of the one, and the plant from which the seed was gathered that produced the other, to know whether this be a tyger, or that tea?

§ 24. *Not by substantial forms.*

Upon the whole matter, it is evident, that it is their own collections of sensible qualities, that men make the essences of their several sorts of substances; and that their real internal structures are not considered by the greatest part of men, in the sorting them. Much less were any substantial forms ever thought on by any, but those who have in this one part of the world learned the language of the schools: and yet those ignorant men, who pretend not any insight into the real essences, nor trouble themselves about substantial forms, but are content with knowing things one from another by their sensible qualities, are often better acquainted with their differences, can more nicely distinguish them from their uses, and better know what they expect from each, than those learned quick-sighted men, who look so deep into them, and talk so confidently of something more hidden and essential.

§ 25. *The specific essences are made by the mind.*

But supposing that the real essences of substances were discoverable by those that would severely apply themselves to that inquiry, yet we could not reasonably think, that the ranking of things under general names was regulated by those internal real constitutions, or any thing else but their obvious appearances: since languages, in all countries, have been established long before sciences. So that they have not been philosophers, or logicians, or such who have troubled themselves about forms and essences, that have made the general names that are in use amongst the several nations of men; but those more or less comprehensive terms have for the most part, in all languages, received their birth and signification from

ignorant and illiterate people, who sorted and denominated things by those sensible qualities they found in them; thereby to signify them, when absent, to others, whether they had an occasion to mention a sort or a particular thing.

§ 26. *Therefore very various and uncertain.*

Since then it is evident, that we sort and name substances by their nominal, and not by their real essences; the next thing to be considered is, how and by whom these essences come to be made. As to the latter, it is evident they are made by the mind, and not by nature: for were they nature's workmanship, they could not be so various and different in several men, as experience tells us they are. For if we will examine it, we shall not find the nominal essence of any one species of substances in all men the same; no not of that, which of all others we are the most intimately acquainted with. It could not possibly be, that the abstract idea to which the name man is given, should be different in several men, if it were of nature's making; and that to one it should be "animal rationale," and to another, "animal implume bipes latis unguibus." He that annexes the name man to a complex idea made up of sense and spontaneous motion, joined to a body of such a shape, has thereby one essence of the species man; and he that, upon farther examination, adds rationality, has another essence of the species he calls man: by which means, the same individual will be a true man to the one, which is not so to the other. I think, there is scarce any one will allow this upright figure, so well known, to be the essential difference of the species man; and yet how far men determine of the sorts of animals rather by their shape than descent, is very visible: since it has been more than once debated, whether several human foetuses should be preserved or received to baptism or no, only because of the difference of their outward configuration from

the ordinary make of children, without knowing whether they were not as capable of reason, as infants cast in another mould: some whereof, though of an approved shape, are never capable of as much appearance of reason all their lives, as is to be found in an ape, or an elephant, and never give any signs of being acted by a rational soul. Whereby it is evident, that the outward figure, which only was found wanting, and not the faculty of reason, which nobody could know would be wanting in its due season, was made essential to the human species. The learned divine and lawyer must, on such occasions, renounce his sacred definition of “animal rationale,” and substitute some other essence of the human species. Monsieur Menage furnishes us with an example worth the taking notice of on this occasion: “When the abbot of St. Martin (says he) was born, “he had so little of the figure of a man, that it bespoke him rather a monster. It was for some time “under deliberation, whether he should be baptized “or no. However, he was baptized and declared a “man provisionally (till time should show what he “would prove.) Nature had moulded him so un- “towardly, that he was called all his life the Abbot “Malotru, *i. e.* ill-shaped. He was of Caen. *Mena-* “*giana*, $\frac{27}{430}$.” This child, we see, was very near being excluded out of the species of man, barely by his shape. He escaped very narrowly as he was, and it is certain a figure a little more oddly turned had cast him, and he had been executed as a thing not to be allowed to pass for a man. And yet there can be no reason given, why if the lineaments of his face had been a little altered, a rational soul could not have been lodged in him: why a visage somewhat longer, or a nose flatter, or a wider mouth, could not have consisted, as well as the rest of his ill figure, with such a soul, such parts, as made him, disfigured as he was, capable to be a dignitary in the church.

§ 27.

Wherein then, would I gladly know, consist the precise and unmoveable boundaries of that species? It is plain, if we examine, there is no such thing made by nature, and established by her amongst men. The real essence of that, or any other sort of substances, it is evident we know not; and therefore are so undetermined in our nominal essences, which we make ourselves, that if several men were to be asked concerning some oddly-shaped foetus, as soon as born, whether it were a man or no, it is past doubt, one should meet with different answers. Which could not happen, if the nominal essences, whereby we limit and distinguish the species of substances, were not made by man, with some liberty; but were exactly copied from precise boundaries set by nature, whereby it distinguished all substances into certain species. Who would undertake to resolve, what species that monster was of, which is mentioned by Licetus, lib. i. c. 3. with a man's head and hog's body? Or those other, which to the bodies of men had the heads of beasts, as dogs, horses, &c. If any of these creatures had lived, and could have spoke, it would have increased the difficulty. Had the upper part, to the middle, been of human shape, and all below swine; had it been murder to destroy it? Or must the bishop have been consulted, whether it were man enough to be admitted to the font or no? as, I have been told, it happened in France some years since, in somewhat a like case. So uncertain are the boundaries of species of animals to us, who have no other measures than the complex ideas of our own collecting; and so far are we from certainly knowing what a man is; though, perhaps it will be judged great ignorance to make any doubt about it. And yet, I think, I may say, that the certain boundaries of that species are so far from being determined, and the

precise number of simple ideas, which make the nominal essence, so far from being settled and perfectly known, that very material doubts may still arise about it. And I imagine, none of the definitions of the word man, which we yet have, nor descriptions of that sort of animal, are so perfect and exact, as to satisfy a considerate inquisitive person; much less to obtain a general consent, and to be that which men would every-where stick by, in the decision of cases, and determining of life and death, baptism or no baptism, in productions that might happen.

§ 28. *But not so arbitrary as mixed modes.*

But though these nominal essences of substances are made by the mind, they are not yet made so arbitrarily as those of mixed modes. To the making of any nominal essence, it is necessary, First, that the ideas whereof it consists have such an union as to make but one idea, how compounded soever. Secondly, that the particular idea so united be exactly the same, neither more nor less. For if two abstract complex ideas differ either in number or sorts of their component parts, they make two different and not one and the same essence. In the first of these, the mind, in making its complex ideas of substances, only follows nature; and puts none together, which are not supposed to have an union in nature. Nobody joins the voice of a sheep with the shape of a horse; nor the colour of lead, with the weight and fixedness of gold; to be the complex ideas of any real substances: unless he has a mind to fill his head with chimeras, and his discourse with unintelligible words. Men observing certain qualities always joined and existing together, therein copied nature; and of ideas so united, made their complex ones of substances. For though men may make what complex ideas they please, and give what names to them they will; yet if they will be understood, when they speak

of things really existing, they must in some degree conform their ideas to the things they would speak of: or else men's language will be like that of Babel; and every man's words being intelligible only to himself, would no longer serve to conversation, and the ordinary affairs of life, if the ideas they stand for be not some way answering the common appearances and agreement of substances, as they really exist.

§ 29. *Though very imperfect.*

Secondly, though the mind of man, in making its complex ideas of substances, never puts any together that do not really or are not supposed to co-exist; and so it truly borrows that union from nature: yet the number it combines depends upon the various care, industry, or fancy of him that makes it. Men generally content themselves with some few sensible obvious qualities; and often, if not always, leave out others as material, and as firmly united, as those that they take. Of sensible substances there are two sorts; one of organized bodies, which are propagated by seed; and in these, the shape is that, which to us is the leading quality and most characteristical part that determines the species. And therefore in vegetables and animals, an extended solid substance of such a certain figure usually serves the turn. For however some men seem to prize their definition of "animal rationale," yet should there a creature be found, that had language and reason, but partook not of the usual shape of a man, I believe it would hardly pass for a man, how much soever it were "animal rationale." And if Balaam's ass had, all his life, discoursed as rationally as he did once with his master, I doubt yet whether any one would have thought him worthy the name man, or allowed him to be of the same species with himself. As in vegetables and animals, it is the shape, so in most other bodies, not propagated by seed, it is the colour we

most fix on, and are most led by. Thus where we find the colour of gold, we are apt to imagine all the other qualities, comprehended in our complex idea, to be there also: and we commonly take these two obvious qualities, viz. shape and colour, for so presumptive ideas of several species, that in a good picture we readily say this is a lion, and that a rose; this is a gold, and that a silver goblet, only by the different figures and colours represented to the eye by the pencil.

§ 30. *Which yet serve for common converse.*

But though this serves well enough for gross and confused conceptions, and inaccurate ways of talking and thinking; yet men are far enough from having agreed on the precise number of simple ideas, or qualities, belonging to any sort of things signified by its name. Nor is it a wonder, since it requires much time, pains, and skill, strict inquiry, and long examination, to find out what and how many those simple ideas are, which are constantly and inseparably united in nature, and are always to be found together in the same subject. Most men wanting either time, inclination, or industry enough for this, even to some tolerable degree, content themselves with some few obvious and outward appearances of things, thereby readily to distinguish and sort them for the common affairs of life: and so, without farther examination, give them names, or take up the names already in use. Which, though in common conversation they pass well enough for the signs of some few obvious qualities co-existing, are yet far enough from comprehending, in a settled signification, a precise number of simple ideas; much less all those which are united in nature. He that shall consider, after so much stir about genus and species, and such a deal of talk of specific differences, how few words we have yet settled definitions of; may with reason imagine that those forms, which there hath been so

much noise made about, are only chimeras, which give us no light into the specific natures of things. And he that shall consider, how far the names of substances are from having significations, wherein all who use them do agree, will have reason to conclude, that though the nominal essences of substances are all supposed to be copied from nature, yet they are all, or most of them, very imperfect. Since the composition of those complex ideas are, in several men, very different; and therefore that these boundaries of species are as men, and not as nature makes them, if at least there are in nature any such prefixed bounds. It is true, that many particular substances are so made by nature, that they have agreement and likeness one with another, and so afford a foundation of being ranked into sorts. But the sorting of things by us, or the making of determinate species, being in order to naming and comprehending them under general terms; I cannot see how it can be properly said, that nature sets the boundaries of the species of things: or if it be so; our boundaries of species are not exactly conformable to those in nature. For we having need of general names for present use, stay not for a perfect discovery of all those qualities which would best show us their most material differences and agreements; but we ourselves divide them, by certain obvious appearances, into species, that we may the easier under general names communicate our thoughts about them. For having no other knowledge of any substance, but of the simple ideas that are united in it; and observing several particular things to agree with others in several of those simple ideas; we make that collection our specific idea, and give it a general name; that in recording our thoughts, and in our discourse with others, we may in one short word design all the individuals that agree in that complex idea, without enumerating the simple ideas that make it up; and so not waste our

time and breath in tedious descriptions: which we see they are fain to do, who would discourse of any new sort of things they have not yet a name for.

§ 31. *Essences of species under the same name very different.*

But however these species of substances pass well enough in ordinary conversation, it is plain that this complex idea, wherein they observe several individuals to agree, is by different men made very differently; by some more, and others less accurately. In some, this complex idea contains a greater, and in others a smaller number of qualities; and so is apparently such as the mind makes it. The yellow shining colour makes gold to children; others add weight, malleableness, and fusibility; and others yet other qualities, which they find joined with that yellow colour, as constantly as its weight and fusibility: for in all these and the like qualities, one has as good a right to be put into the complex idea of that substance wherein they are all joined as another. And therefore different men leaving out or putting in several simple ideas, which others do not, according to their various examination, skill, or observation of that subject, have different essences of gold: which must therefore be of their own, and not of nature's making.

§ 32. *The more general our ideas are, the more incomplete and partial they are.*

If the number of simple ideas, that make the nominal essence of the lowest species, or first sorting of individuals, depends on the mind of man variously collecting them, it is much more evident that they do so, in the more comprehensive classes, which by the masters of logic are called genera. These are complex ideas designedly imperfect: and it is visible at first sight, that several of those qualities that are to be found in the things themselves, are purposely left out of generical ideas. For as the mind, to make ge-

neral ideas comprehending several particulars, leaves out those of time, and place, and such other, that make them incommunicable to more than one individual; so to make other yet more general ideas, that may comprehend different sorts, it leaves out those qualities that distinguish them, and puts into its new collection only such ideas as are common to several sorts. The same convenience that made men express several parcels of yellow matter coming from Guinea and Peru under one name, sets them also upon making of one name that may comprehend both gold and silver, and some other bodies of different sorts. This is done by leaving out those qualities, which are peculiar to each sort; and retaining a complex idea made up of those that are common to them all: to which the name metal being annexed, there is a genus constituted; the essence whereof being that abstract idea, containing only malleableness and fusibility, with certain degrees of weight and fixedness, wherein some bodies of several kinds agree, leaves out the colour, and other qualities peculiar to gold and silver, and the other sorts comprehended under the name metal. Whereby it is plain, that men follow not exactly the patterns set them by nature, when they make their general ideas of substances; since there is no body to be found, which has barely malleableness and fusibility in it, without other qualities as inseparable as those. But men, in making their general ideas, seeing more the convenience of language and quick dispatch, by short and comprehensive signs, than the true and precise nature of things as they exist, have, in the framing their abstract ideas, chiefly pursued that end, which was to be furnished with store of general and variously comprehensive names. So that in this whole business of genera and species, the genus, or more comprehensive, is but a partial conception of what is in the species, and the species but a partial idea of what is to be found in

each individual. If therefore any one will think, that a man, and a horse, and an animal, and a plant, &c. are distinguished by real essences made by nature, he must think nature to be very liberal of these real essences, making one for body, another for an animal, and another for a horse; and all these essences liberally bestowed upon Bucephalus. But if we would rightly consider what is done in all these genera and species, or sorts, we should find, that there is no new thing made, but only more or less comprehensive signs, whereby we may be enabled to express, in a few syllables, great numbers of particular things, as they agree in more or less general conceptions, which we have framed to that purpose. In all which we may observe, that the more general term is always the name of a less complex idea: and that each genus is but a partial conception of the species comprehended under it. So that if these abstract general ideas be thought to be complete, it can only be in respect of a certain established relation between them and certain names which are made use of to signify them; and not in respect of any thing existing, as made by nature.

§ 33. *This all accommodated to the end of speech.*

This is adjusted to the true end of speech, which is to be the easiest and shortest way of communicating our notions. For thus he, that would discourse of things as they agreed in the complex ideas of extension and solidity, needed but use the word body, to denote all such. He that to these would join others, signified by the words life, sense, and spontaneous motion, needed but use the word animal, to signify all which partook of those ideas: and he that had made a complex idea of a body, with life, sense, and motion, with the faculty of reasoning, and a certain shape joined to it, needed but use the short monosyllable man to express all particulars that correspond to that complex idea. This is the proper business

of genus and species : and this men do, without any consideration of real essences, or substantial forms, which come not within the reach of our knowledge, when we think of those things ; nor within the signification of our words, when we discourse with others.

§ 34. *Instance in cassuaris.*

Were I to talk with any one of a sort of birds I lately saw in St. James's Park, about three or four feet high, with a covering of something between feathers and hair, of a dark brown colour, without wings, but in the place thereof two or three little branches coming down like sprigs of Spanish broom, long great legs, with feet only of three claws, and without a tail ; I must make this description of it, and so may make others understand me : but when I am told that the name of it is cassuaris, I may then use that word to stand in discourse for all my complex idea mentioned in that description ; though by that word, which is now become a specific name, I know no more of the real essence or constitution of that sort of animals than I did before ; and knew probably as much of the nature of that species of birds, before I learned the name, as many Englishmen do of swans, or herons, which are specific names, very well known, of sorts of birds common in England.

§ 35. *Men determine the sorts.*

From what has been said, it is evident that men make sorts of things. For it being different essences alone that make different species, it is plain that they who make those abstract ideas, which are the nominal essences, do thereby make the species, or sort. Should there be a body found, having all the other qualities of gold, except malleableness, it would no doubt be made a question whether it were gold or no, *i. e.* whether it were of that species. This could be determined only by that abstract idea, to which every one annexed the name gold ; so that it would be true gold to him, and belong to that species, who

included not a malleableness in his nominal essence, signified by the sound gold; and on the other side it would not be true gold, or of that species to him who included malleableness in his specific idea. And who, I pray, is it that makes these diverse species even under one and the same name, but men that make two different abstract ideas consisting not exactly of the same collection of qualities? Nor is it a mere supposition to imagine that a body may exist, wherein the other obvious qualities of gold may be without malleableness; since it is certain, that gold itself will be sometimes so eager (as artists call it) that it will as little endure the hammer as glass itself. What we have said, of the putting in, or leaving malleableness out of the complex idea the name gold is by any one annexed to, may be said of its peculiar weight, fixedness, and several other the like qualities: for whatsoever is left out, or put in, it is still the complex idea, to which that name is annexed, that makes the species; and as any particular parcel of matter answers that idea, so the name of the sort belongs truly to it; and it is of that species. And thus any thing is true gold, perfect metal. All which determination of the species, it is plain, depends on the understanding of man, making this or that complex idea.

§ 36. *Nature makes the similitude.*

This then, in short, is the case; nature makes many particular things which do agree one with another, in many sensible qualities, and probably too in their internal frame and constitution: but it is not this real essence that distinguishes them into species; it is men, who taking occasion from the qualities they find united in them, and wherein they observe often several individuals to agree, range them into sorts, in order to their naming, for the convenience of comprehensive signs; under which individuals,

according to their conformity to this or that abstract idea, come to be ranked as under ensigns; so that this is of the blue, that the red regiment; this is a man, that a drill: and in this, I think, consists the whole business of genus and species.

§ 37.

I do not deny but nature, in the constant production of particular beings, makes them not always new and various, but very much alike and of kin one to another: but I think it nevertheless true, that the boundaries of the species whereby men sort them, are made by men; since the essences of the species, distinguished by different names, are, as has been proved, of man's making, and seldom adequate to the internal nature of the things they are taken from. So that we may truly say, such a manner of sorting of things is the workmanship of men.

§ 38. *Each abstract idea is an essence.*

One thing I doubt not but will seem very strange in this doctrine; which is, that from what has been said it will follow, that each abstract idea, with a name to it, makes a distinct species. But who can help it if truth will have it so? For so it must remain till some body can show us the species of things limited and distinguished by something else; and let us see, that general terms signify not our abstract ideas, but something different from them. I would fain know why a shock and a hound are not as distinct species as a spaniel and an elephant. We have no other idea of the different essence of an elephant and a spaniel, than we have of the different essence of a shock and a hound; all the essential difference, whereby we know and distinguish them one from another, consisting only in the different collection of simple ideas, to which we have given those different names.

§ 39. *Genera and species are in order to naming.*

How much the making of species and genera is in order to general names, and how much general names are necessary, if not to the being, yet at least to the completing of a species, and making it pass for such, will appear, besides what has been said above concerning ice and water, in a very familiar example. A silent and a striking watch are but one species to those who have but one name for them: but he that has the name watch for one, and clock for the other, and distinct complex ideas, to which those names belong, to him they are different species. It will be said perhaps that the inward contrivance and constitution is different between these two, which the watch-maker has a clear idea of. And yet, it is plain, they are but one species to him, when he has but one name for them. For what is sufficient in the inward contrivance to make a new species? There are some watches that are made with four wheels, others with five: is this a specific difference to the workman? Some have strings and physies, and others none; some have the balance loose, and others regulated by a spiral spring, and others by hog's bristles; are any or all of these enough to make a specific difference to the workman, that knows each of these, and several other different contrivances in the internal constitutions of watches? It is certain each of these hath a real difference from the rest: but whether it be an essential, a specific difference or no, relates only to the complex idea to which the name watch is given: as long as they all agree in the idea which that name stands for, and that name does not as a generical name comprehend different species under it, they are not essentially nor specifically different. But if any one will make minuter divisions from differences that he knows in the internal frame of watches, and to such precise complex ideas give names that shall prevail: they will then be new species to them who have

those ideas with names to them, and can, by those differences, distinguish watches into these several sorts, and then watch will be a generical name. But yet they would be no distinct species to men ignorant of clock work and the inward contrivances of watches, who had no other idea but the outward shape and bulk, with the marking of the hours by the hand. For to them all those other names would be but synonymous terms for the same idea, and signify no more, nor no other thing but a watch. Just thus, I think it is in natural things. Nobody will doubt that the wheels or springs (if I may so say) within, are different in a rational man and a changeling, no more than that there is a difference in the frame between a drill and a changeling. But whether one, or both the differences be essential or specific, is only to be known to us, by their agreement or disagreement with the complex idea that the name man stands for: for by that alone can it be determined, whether one, or both, or neither of those be a man or no.

§ 40. *Species of artificial things less confused than natural.*

From what has been before said, we may see the reason why, in the species of artificial things, there is generally less confusion and uncertainty, than in natural. Because an artificial thing being a production of man, which the artificer designed, and therefore well knows the idea of, the name of it is supposed to stand for no other idea, nor to import any other essence than what is certainly to be known, and easy enough to be apprehended. For the idea or essence of the several sorts of artificial things consisting, for the most part, in nothing but the determinate figure of sensible parts; and sometimes motion depending thereon, which the artificer fashions in matter, such as he finds for his turn; it is not beyond the reach of our faculties to attain a certain idea thereof,

and to settle the signification of the names whereby the species of artificial things are distinguished with less doubt, obscurity, and equivocation, than we can in things natural, whose differences and operations depend upon contrivances beyond the reach of our discoveries.

§ 41. *Artificial things of distinct species.*

I must be excused here if I think artificial things are of distinct species as well as natural: since I find they are as plainly and orderly ranked into sorts, by different abstract ideas, with general names annexed to them, as distinct one from another as those of natural substances. For why should we not think a watch and pistol, as distinct species one from another, as a horse and a dog, they being expressed in our minds by distinct ideas, and to others by distinct appellations?

§ 42. *Substances alone have proper names.*

This is farther to be observed concerning substances, that they alone of all our several sorts of ideas have particular or proper names, whereby one only particular thing is signified. Because in simple ideas, modes, and relations, it seldom happens that men have occasion to mention often this or that particular when it is absent. Besides, the greatest part of mixed modes, being actions which perish in their birth, are not capable of a lasting duration as substances, which are the actors: and wherein the simple ideas that make up the complex ideas designed by the name, have a lasting union.

§ 43. *Difficulty to treat of words.*

I must beg pardon of my reader, for having dwelt so long upon this subject, and perhaps with some obscurity. But I desire it may be considered how difficult it is to lead another by words into the thoughts of things, stripped of those specific differences we give them: which things, if I name not, I say nothing; and if I do name them, I thereby rank

them into some sort or other, and suggest to the mind the usual abstract idea of that species; and so cross my purpose. For to talk of a man, and to lay by, at the same time, the ordinary signification of the name man, which is our complex idea usually annexed to it; and bid the reader consider man as he is in himself, and as he is really distinguished from others in his internal constitution, or real essence; that is, by something he knows not what; looks like trifling: and yet thus one must do who would speak of the supposed real essences and species of things, as thought to be made by nature, if it be but only to make it understood, that there is no such thing signified by the general names, which substances are called by. But because it is difficult by known familiar names to do this, give me leave to endeavour by an example to make the different consideration the mind has of specific names and ideas a little more clear, and to show how the complex ideas of modes are referred sometimes to archetypes in the minds of other intelligent beings; or, which is the same, to the signification annexed by others to their received names; and sometimes to no archetypes at all. Give me leave also to show how the mind always refers its ideas of substances, either to the substances themselves, or to the signification of their names as to the archetypes; and also to make plain the nature of species, or sorting of things, as apprehended, and made use of by us; and of the essences belonging to those species, which is perhaps of more moment, to discover the extent and certainty of our knowledge, than we at first imagine.

§ 44. *Instances of mixed modes in kinneah and niouph.*

Let us suppose Adam in the state of a grown man, with a good understanding, but in a strange country, with all things new and unknown about him; and no other faculties to attain the knowledge of them, but what one of this age has now. He observes La-

mech more melancholy than usual, and imagines it to be from a suspicion he has of his wife Adah (whom he most ardently loved,) that she had too much kindness for another man. Adam discourses these his thoughts to Eve, and desires her to take care that Adah commit not folly: and in these discourses with Eve he makes use of these two new words, kinneah and niouph. In time Adam's mistake appears, for he finds Lamech's trouble proceeded from having killed a man: but yet the two names kinneah and niouph (the one standing for suspicion, in a husband, of his wife's disloyalty to him, and the other for the act of committing disloyalty) lost not their distinct significations. It is plain then that here were two distinct complex ideas of mixed modes with names to them, two distinct species of actions essentially different; I ask wherein consisted the essences of these two distinct species of actions? And it is plain it consisted in a precise combination of simple ideas, different in one from the other. I ask, whether the complex idea in Adam's mind, which he called kinneah, were adequate or no? And it is plain it was; for it being a combination of simple ideas, which he, without any regard to any archetype, without respect to any thing as a pattern, voluntarily put together, abstracted and gave the name kinneah to, to express in short to others, by that one sound, all the simple ideas contained and united in that complex one; it must necessarily follow, that it was an adequate idea. His own choice having made that combination, it had all in it he intended it should, and so could not but be perfect, could not but be adequate, it being referred to no other archetype which it was supposed to represent.

§ 45.

These words, kinneah and niouph, by degrees grew into common use; and then the case was somewhat altered. Adam's children had the same facul-

ties, and thereby the same power that he had to make what complex ideas of mixed modes they pleased in their own minds; to abstract them, and make what sounds they pleased the signs of them: but the use of names being to make our ideas within us known to others, that cannot be done, but when the same sign stands for the same idea in two who would communicate their thoughts and discourses together. Those therefore of Adam's children, that found these two words, kinneah and niouph, in familiar use, could not take them for insignificant sounds; but must needs conclude, they stood for something, for certain ideas, abstract ideas, they being general names, which abstract ideas were the essences of the species distinguished by those names. If therefore they would use these words, as names of species already established and agreed on, they were obliged to conform the ideas in their minds, signified by these names, to the ideas that they stood for in other men's minds, as to their patterns and archetypes; and then indeed their ideas of these complex modes were liable to be inadequate, as being very apt (especially those that consisted of combinations of many simple ideas) not to be exactly conformable to the ideas in other men's minds, using the same names; though for this there be usually a remedy at hand, which is to ask the meaning of any word we understand not, of him that uses it: it being as impossible to know certainly what the words jealousy and adultery (which I think answer קנאה and נאוף) stand for in another man's mind, with whom I would discourse about them, as it was impossible, in the beginning of language, to know what kinneah and niouph stood for in another man's mind, without explication, they being voluntary signs in every one.

§ 46. *Instance of substances in zahab.*

Let us now also consider, after the same manner, the names of substances in their first application. One

of Adam's children, roving in the mountains, lights on a glittering substance which pleases his eye; home he carries it to Adam, who upon consideration of it, finds it to be hard, to have a bright yellow colour, and an exceeding great weight. These, perhaps, at first, are all the qualities he takes notice of in it; and abstracting this complex idea, consisting of a substance having that peculiar bright yellowness, and a weight very great in proportion to its bulk, he gives it the name *zahab*, to denominate and mark all substances that have these sensible qualities in them. It is evident now that, in this case, Adam acts quite differently from what he did before in forming those ideas of mixed modes, to which he gave the names *kinneah* and *niouph*. For there he puts ideas together, only by his own imagination, not taken from the existence of any thing; and to them he gave names to denominate all things that should happen to agree to those his abstract ideas, without considering whether any such thing did exist or no; the standard there was of his own making. But in the forming his idea of this new substance, he takes the quite contrary course; here he has a standard made by nature; and therefore being to represent that to himself, by the idea he has of it, even when it is absent, he puts in no simple idea into his complex one, but what he has the perception of from the thing itself. He takes care that his idea be conformable to this archetype, and intends the name should stand for an idea so conformable.

§ 47.

This piece of matter, thus denominated *zahab* by Adam, being quite different from any he had seen before, nobody, I think, will deny to be a distinct species, and to have its peculiar essence; and that the name *zahab* is the mark of the species, and a name belonging to all things partaking in that essence. But here it is plain, the essence, Adam made the name

zahab stand for, was nothing but a body hard, shining, yellow, and very heavy. But the inquisitive mind of man, not content with the knowledge of these, as I may say, superficial qualities, puts Adam on farther examination of this matter. He therefore knocks and beats it with flints, to see what was discoverable in the inside: he finds it yield to blows, but not easily separate into pieces: he finds it will bend without breaking. Is not now ductility to be added to his former idea, and made part of the essence of the species that name zahab stands for? Farther trials discover fusibility and fixedness. Are not they also, by the same reason that any of the others were, to be put into the complex idea signified by the name zahab? If not, what reason will there be shown more for the one than the other? If these must, then all the other properties, which any farther trials shall discover in this matter, ought by the same reason to make a part of the ingredients of the complex idea which the name zahab stands for, and so be the essence of the species marked by that name. Which properties, because they are endless, it is plain, that the idea made after this fashion by this archetype, will be always inadequate.

§ 48. *Their ideas imperfect, and therefore various.*

But this is not all, it would also follow, that the names of substances would not only have (as in truth they have) but would also be supposed to have, different significations, as used by different men, which would very much cumber the use of language. For if every distinct quality, that were discovered in any matter by any one, were supposed to make a necessary part of the complex idea, signified by the common name given it, it must follow, that men must suppose the same word to signify different things in different men; since they cannot doubt but different men may have discovered several qualities in sub-

stances of the same denomination, which others know nothing of.

§ 49. *Therefore to fix their species, a real essence is supposed.*

To avoid this, therefore, they have supposed a real essence belonging to every species, from which these properties all flow, and would have their name of the species stand for that. But they not having any idea of that real essence in substances, and their words signifying nothing but the ideas they have; that which is done by this attempt, is only to put the name or sound in the place and stead of the thing having that real essence, without knowing what the real essence is: and this is that which men do, when they speak of species of things, as supposing them made by nature, and distinguished by real essences.

§ 50. *Which supposition is of no use.*

For let us consider, when we affirm, that all gold is fixed, either it means that fixedness is a part of the definition, part of the nominal essence the word gold stands for; and so this affirmation, all gold is fixed, contains nothing but the signification of the term gold. Or else it means, that fixedness, not being a part of the definition of the gold, is a property of that substance itself: in which case, it is plain, that the word gold stands in the place of a substance, having the real essence of a species of things made by nature. In which way of substitution it has so confused and uncertain a signification, that though this proposition, gold is fixed, be in that sense an affirmation of something real, yet it is a truth will always fail us in its particular application, and so is of no real use nor certainty. For let it be ever so true, that all gold, *i. e.* all that has the real essence of gold, is fixed, what serves this for, whilst we know not in this sense what is or is not gold? For if we know not the real essence of gold, it is impossible we should

know what parcel of matter has that essence, and so whether it be true gold or no.

§ 51. *Conclusion.*

To conclude ; what liberty Adam had at first to make any complex ideas of mixed modes, by no other patterns but his own thought, the same have all men ever since had. And the same necessity of conforming his ideas of substances to things without him, as to archetypes made by nature, that Adam was under, if he would not wilfully impose upon himself ; the same are all men ever since under too. The same liberty also that Adam had of affixing any new name to any idea, the same has any one still (especially the beginners of languages, if we can imagine any such) ; but only with this difference, that in places where men in society have already established a language amongst them, the significations of words are very warily and sparingly to be altered : because men being furnished already with names for their ideas, and common use having appropriated known names to certain ideas, an affected misapplication of them cannot but be very ridiculous. He that hath new notions, will, perhaps, venture sometimes on the coining of new terms to express them ; but men think it a boldness, and it is uncertain whether common use will ever make them pass for current. But in communication with others, it is necessary, that we conform the ideas we make the vulgar words of any language stand for to their known proper significations (which I have explained at large already) or else to make known that new signification we apply them to.

CHAP. VII.

OF PARTICLES.

§ 1. *Particles connect arts, or whole sentences together.*

BESIDES words which are names of ideas, in the mind, there are a great many others that are made use of, to signify the connexion that the mind gives to ideas, or propositions, one with another. The mind, in communicating its thoughts to others, does not only need signs of the ideas it has then before it, but others also, to show or intimate some particular action of its own, at that time, relating to those ideas. This it does several ways; as is, and is not, are the general marks of the mind, affirming or denying. But besides affirmation or negation, without which there is in words no truth or falsehood, the mind does, in declaring its sentiments to others, connect not only the parts of propositions, but whole sentences one to another, with their several relations and dependencies, to make a coherent discourse.

§ 2. *In them consists the art of well-speaking.*

The words, whereby it signifies what connexion it gives to the several affirmations and negations, that it unites in one continued reasoning or narration, are generally called particles; and it is in the right use of these, that more particularly consists the clearness and beauty, of a good style. To think well, it is not enough that a man has ideas clear and distinct in his thoughts, nor that he observes the agreement or disagreement of some of them; but he must think in train, and observe the dependence of his thoughts and reasonings upon one another. And to express

well such methodical and rational thoughts, he must have words to show what connexion, restriction, distinction, opposition, emphasis, &c. he gives to each respective part of his discourse. To mistake in any of these, is to puzzle, instead of informing his hearer; and therefore it is that those words which are not truly by themselves the names of any ideas, are of such constant and indispensable use in language, and do much contribute to men's well expressing themselves.

§ 3. *They show what relation the mind gives to its own thoughts.*

This part of grammar has been perhaps as much neglected, as some others over-diligently cultivated. It is easy for men to write, one after another, of cases and genders, moods and tenses, gerunds and supines: in these, and the like, there has been great diligence used; and particles themselves, in some languages, have been, with great show of exactness, ranked into their several orders. But though prepositions and conjunctions, &c. are names well known in grammar, and the particles contained under them carefully ranked into their distinct subdivisions; yet he who would show the right use of particles, and what significancy and force they have, must take a little more pains, enter into his own thoughts, and observe nicely the several postures of his mind in discoursing.

§ 4.

Neither is it enough, for the explaining of these words, to render them, as is usual in dictionaries, by words of another tongue which come nearest to their signification; for what is meant by them is commonly as hard to be understood in one, as another language. They are all marks of some action, or intimation of the mind; and therefore to understand them rightly, the several views, postures, stands, turns, limitations, and exceptions, and several other

thoughts of the mind, for which we have either none, or very deficient names, are diligently to be studied. Of these there is a great variety, much exceeding the number of particles that most languages have to express them by; and therefore it is not to be wondered that most of these particles have divers, and sometimes almost opposite significations. In the Hebrew tongue there is a particle consisting of but one single letter, of which there are reckoned up, as I remember, seventy, I am sure above fifty several significations.

§ 5. *Instance in But.*

But is a particle, none more familiar in our language; and he that says it is a discretive conjunction, and that it answers *sed* in Latin, or *mais* in French, thinks he has sufficiently explained it. But it seems to me to intimate several relations the mind gives to the several propositions or parts of them, which it joins by this monosyllable.

First, “but to say no more:” here it intimates a stop of the mind in the course it was going, before it came quite to the end of it.

Secondly, “I saw but two plants:” here it shows, that the mind limits the sense to what is expressed, with a negation of all other.

Thirdly, “you pray; but it is not that God would bring you to the true religion.”

Fourthly, “but that he would confirm you in your own.” The first of these Buts intimates a supposition in the mind of something otherwise than it should be; the latter shows, that the mind makes a direct opposition between that, and what goes before it.

Fifthly, “all animals have sense; but a dog is an animal:” here it signifies little more, but that the latter proposition is joined to the former, as the minor of a syllogism.

§ 6. *This matter but lightly touched here.*

To these, I doubt not, might be added a great many other significations of this particle, if it were my business to examine it in its full latitude, and consider it in all the places it is to be found: which if one should do, I doubt, whether in all those manners it is made use of, it would deserve the title of discrete, which grammarians give to it. But I intend not here a full explication of this sort of signs. The instances I have given in this one, may give occasion to reflect on their use and force in language, and lead us into the contemplation of several actions of our minds in discoursing, which it has found a way to intimate to others by these particles; some whereof constantly, and others in certain constructions, have the sense of a whole sentence contained in them.

CHAP. VIII.

OF ABSTRACT AND CONCRETE TERMS.

§ 1. *Abstract terms not predicable one of another, and why.*

THE ordinary words of language, and our common use of them, would have given us light into the nature of our ideas, if they had been but considered with attention. The mind, as has been shown, has a power to abstract its ideas, and so they become essences, general essences, whereby the sorts of things are distinguished. Now each abstract idea being distinct, so that of any two the one can never be the

other, the mind will, by its intuitive knowledge, perceive their difference; and therefore in propositions no two whole ideas can ever be affirmed one of another. This we see in the common use of language, which permits not any two abstract words, or names of abstract ideas, to be affirmed one of another. For how near of kin soever they may seem to be, and how certain soever it is, that man is an animal, or rational, or white, yet every one at first hearing perceives the falsehood of these propositions; humanity is animality, or rationality, or whiteness: and this is as evident, as any of the most allowed maxims. All our affirmations then are only inconcrete, which is the affirming, not one abstract idea to be another, but one abstract idea to be joined to another; which abstract ideas, in substances, may be of any sort; in all the rest, are little else but of relations; and in substances, the most frequent are of powers; *v. g.* “a man is white,” signifies, that the thing that has the essence of a man, has also in it the essence of whiteness, which is nothing but a power to produce the idea of whiteness in one, whose eyes can discover ordinary objects; or “a man is rational,” signifies that the same thing that hath the essence of a man, hath also in it the essence of rationality, *i. e.* a power of reasoning.

§ 2. *They show the difference of our ideas.*

This distinction of names shows us also the difference of our ideas: for if we observe them, we shall find that our simple ideas have all abstract, as well as concrete names; the one whereof is (to speak the language of grammarians) a substantive, the other an adjective; as whiteness, white; sweetness, sweet. The like also holds in our ideas of modes and relations; as justice, just; equality, equal; only with this difference, that some of the concrete names of relations, amongst men chiefly, are substantives; as paternitas, pater; whereof it were easy to render a

reason. But as to our ideas of substances, we have very few or no abstract names at all. For though the schools have introduced animalitas, humanitas, corporietas, and some others; yet they hold no proportion with that infinite number of names of substances, to which they never were ridiculous enough to attempt the coining of abstract ones: and those few that the schools forged, and put into the mouths of their scholars, could never yet get admittance into common use, or obtain the licence of public approbation. Which seems to me at least to intimate the confession of all mankind, that they have no ideas of the real essences of substances, since they have not names for such ideas: which no doubt they would have had, had not their consciousness to themselves of their ignorance of them kept them from so idle an attempt. And therefore though they had ideas enough to distinguish gold from a stone, and metal from wood; yet they but timorously ventured on such terms, as aurietas and saxietas, metallietas and lignietas, or the like names, which should pretend to signify the real essences of those substances, whereof they knew they had no ideas. And indeed it was only the doctrine of substantial forms, and the confidence of mistaken pretenders to a knowledge that they had not, which first coined, and then introduced animalitas, and humanitas, and the like; which yet went very little farther than their own schools, and could never get to be current amongst understanding men. Indeed, humanitas was a word familiar amongst the Romans, but in a far different sense, and stood not for the abstract essence of any substance; but was the abstracted name of a mode, and its concrete humanus, not homo.

CHAP. IX.

OF THE IMPERFECTION OF WORDS.

§ 1. *Words are used for recording and communicating our thoughts.*

FROM what has been said in the foregoing chapters, it is easy to perceive what imperfection there is in language, and how the very nature of words makes it almost unavoidable for many of them to be doubtful and uncertain in their significations. To examine the perfection or imperfection of words, it is necessary first to consider their use and end: for as they are more or less fitted to attain that, so they are more or less perfect. We have, in the former part of this discourse, often upon occasion mentioned a double use of words.

First, one for the recording of our own thoughts.

Secondly, the other for the communicating of our thoughts to others.

§ 2. *Any words will serve for recording.*

As to the first of these, for the recording our own thoughts for the help of our own memories, whereby, as it were, we talk to ourselves, any words will serve the turn. For since sounds are voluntary and indifferent signs of any ideas, a man may use what words he pleases, to signify his own ideas to himself: and there will be no imperfection in them, if he constantly use the same sign for the same idea; for then he cannot fail of having his meaning understood, wherein consists the right use and perfection of language.

§ 3. *Communication by words civil or philosophical.*

Secondly, as to communication of words, that too has a double use.

I. Civil.

II. Philosophical.

First, by their civil use, I mean such a communication of thoughts and ideas by words, as may serve for the upholding common conversation and commerce, about the ordinary affairs and conveniencies of civil life, in the societies of men one amongst another.

Secondly, by the philosophical use of words, I mean such an use of them, as may serve to convey the precise notions of things, and to express, in general propositions, certain and undoubted truths, which the mind may rest upon, and be satisfied with, in its search after true knowledge. These two uses are very distinct; and a great deal less exactness will serve in the one than in the other, as we shall see in what follows.

§ 4. *The imperfection of words is the doubtfulness of their signification.*

The chief end of language in communication being to be understood, words serve not well for that end, neither in civil nor philosophical discourse, when any word does not excite in the hearer the same idea which it stands for in the mind of the speaker. Now since sounds have no natural connection with our ideas, but have all their signification from the arbitrary imposition of men, the doubtfulness and uncertainty of their signification, which is the imperfection we here are speaking of, has its cause more in the ideas they stand for, than in any incapacity there is in one sound more than in another, to signify any idea: for in that regard they are all equally perfect.

That then which makes doubtfulness and uncertainty in the signification of some more than other words, is the difference of ideas they stand for.

§ 5. *Causes of their imperfection.*

Words having naturally no signification, the idea which each stands for must be learned and retained by those who would exchange thoughts, and hold intelligible discourse with others in any language. But this is hardest to be done, where,

First, the ideas they stand for are very complex, and made up of a great number of ideas put together.

Secondly, where the ideas they stand for have no certain connexion in nature; and so no settled standard, any where in nature existing, to rectify and adjust them by.

Thirdly, when the signification of the word is referred to a standard, which standard is not easy to be known.

Fourthly, where the signification of the word, and the real essence of the thing, are not exactly the same.

These are difficulties that attend the signification of several words that are intelligible. Those which are not intelligible at all, such as names standing for any simple ideas, which another has not organs or faculties to attain; as the names of colours to a blind man, or sounds to a deaf man; need not here be mentioned.

In all these cases we shall find an imperfection in words, which I shall more at large explain, in their particular application to our several sorts of ideas: for if we examine them, we shall find that the names of mixed modes are most liable to doubtfulness and imperfection, for the two first of these reasons; and the names of substances chiefly for the two latter.

§ 6. *The names of mixed modes doubtful. First, because the ideas they stand for are so complex.*

First the names of mixed modes are many of them liable to great uncertainty and obscurity in their signification.

I. Because of that great composition these complex ideas are often made up of. To make words serviceable to the end of communication, it is necessary (as has been said) that they excite in the hearer exactly the same idea they stand for in the mind of the speaker. Without this, men fill one another's heads with noise and sounds; but convey not thereby their thoughts, and lay not before one another their ideas, which is the end of discourse and language. But when a word stands for a very complex idea that is compounded and decompounded, it is not easy for men to form and retain that idea so exactly, as to make the name in common use stand for the same precise idea, without any the least variation. Hence it comes to pass that men's names of very compound ideas, such as for the most part are moral words, have seldom, in two different men, the same precise signification; since one man's complex idea seldom agrees with another's, and often differs from his own, from that which he had yesterday, or will have to-morrow.

§ 7. *Secondly, because they have no standards.*

II. Because the names of mixed modes, for the most part, want standards in nature, whereby men may rectify and adjust their significations; therefore they are very various and doubtful. They are assemblages of ideas put together at the pleasure of the mind, pursuing its own ends of discourse, and suited to its own notions; whereby it designs not to copy any thing really existing, but to denominate and rank things, as they come to agree with those archetypes or forms it has made. He that first

brought the word sham, or wheedle, or banter, in use, put together, as he thought fit, those ideas he made it stand for: and as it is with any new names of modes, that are now brought into any language; so it was with the old ones, when they were first made use of. Names therefore that stand for collections of ideas which the mind makes at pleasure, must needs be of doubtful signification, when such collections are no where to be found constantly united in nature, nor any patterns to be shown whereby men may adjust them. What the word murder, or sacrilege, &c. signifies, can never be known from things themselves: there be many of the parts of those complex ideas, which are not visible in the action itself; the intention of the mind, or the relation of holy things, which make a part of murder or sacrilege, have no necessary connexion with the outward and visible action of him that commits either: and the pulling the trigger of the gun, with which the murder is committed, and is all the action that perhaps is visible, has no natural connexion with those other ideas that make up the complex one, named murder. They have their union and combination only from the understanding, which unites them under one name: but uniting them without any rule or pattern, it cannot be but that the signification of the name that stands for such voluntary collections should be often various in the minds of different men, who have scarce any standing rule to regulate themselves and their notions by, in such arbitrary ideas.

§ 8. *Propriety not a sufficient remedy.*

It is true, common use, that is the rule of propriety, may be supposed here to afford some aid, to settle the signification of language; and it cannot be denied, but that in some measure it does. Common use regulates the meaning of words pretty well for common conversation; but nobody having an au-

thority to establish the precise signification of words, nor determined to what ideas any one shall annex them, common use is not sufficient to adjust them to philosophical discourses; there being scarce any name of any very complex idea (to say nothing of others) which in common use has not a great latitude, and which keeping within the bounds of propriety, may not be made the sign of far different ideas. Besides, the rule and measure of propriety itself being nowhere established, it is often matter of dispute whether this or that way of using a word be propriety of speech or no. From all which it is evident, that the names of such kind of very complex ideas are naturally liable to this imperfection, to be of doubtful and uncertain signification; and even in men that have a mind to understand one another, do not always stand for the same idea in speaker and hearer. Though the names glory and gratitude be the same in every man's mouth, through a whole country, yet the complex collective idea, which every one thinks on, or intends by that name, is apparently very different in men using the same language.

§ 9. *The way of learning these names contributes also to their doubtfulness.*

The way also wherein the names of mixed modes are ordinarily learned, does not a little contribute to the doubtfulness of their signification. For if we will observe how children learn languages, we shall find that to make them understand what the names of simple ideas, or substances, stand for, people ordinarily show them the thing, whereof they would have them have the idea; and then repeat to them the name that stands for it, as white, sweet, milk, sugar, cat, dog. But as for mixed modes, especially the most material of them, moral words, the sounds are usually learned first; and then to know what complex ideas they stand for, they are either beholden to the explication of others, or, (which happens for

the most part) are left to their own observation and industry ; which being little laid out in the search of the true and precise meaning of names, these moral words are in most men's mouths little more than bare sounds ; or when they have any, it is for the most part but a very loose and undetermined, and consequently obscure and confused signification. And even those themselves who have with more attention settled their notions, do yet hardly avoid the inconvenience, to have them stand for complex ideas, different from those which other, even intelligent and studious men, make them the signs of. Where shall one find any, either controversial debate, or familiar discourse, concerning honour, faith, grace, religion, church, &c. wherein it is not easy to observe the different notions men have of them? which is nothing but this, that they are not agreed in the signification of those words, nor have in their minds the same complex ideas which they make them stand for : and so all the contests that follow thereupon, are only about the meaning of a sound, And hence we see, that in the interpretation of laws, whether divine or human, there is no end ; comments beget comments, and explications make new matter for explications ; and of limiting, distinguishing, varying the signification of these moral words, there is no end. These ideas of men's making are, by men still having the same power, multiplied in infinitum. Many a man who was pretty well satisfied of the meaning of a text of scripture, or clause in the code at first reading, has by consulting commentators quite lost the sense of it, and by these elucidations given rise or increase to his doubts, and drawn obscurity upon the place. I say not this, that I think commentaries needless ; but to show how uncertain the names of mixed modes naturally are, even in the mouths of those who had both the intention and the faculty of speaking as clearly as language was capable to express their thoughts.

§ 10. *Hence unavoidable obscurity in ancient authors.*

What obscurity this has unavoidably brought upon the writings of men, who have lived, in remote ages and different countries, it will be needless to take notice ; since the numerous volumes of learned men, employing their thoughts that way, are proofs more than enough to show what attention, study, sagacity, and reasoning are required, to find out the true meaning of ancient authors. But there being no writings we have any great concernment to be very solicitous about the meaning of, but those that contain either truths we are required to believe, or laws we are to obey, and draw inconveniencies on us when we mistake or transgress, we may be less anxious about the sense of other authors ; who writing but their own opinions, we are under no greater necessity to know them, than they to know ours. Our good or evil depending not on their decrees, we may safely be ignorant of their notions : and therefore, in the reading of them, if they do not use their words with a due clearness and perspicuity, we may lay them aside, and, without any injury done them, resolve thus with ourselves,

“ Si non vis intelligi, debes negligi.”

§ 11. *Names of substances of doubtful signification.*

If the signification of the names of mixed modes are uncertain, because there be no real standards existing in nature, to which those ideas are referred, and by which they may be adjusted ; the names of substances are of a doubtful signification, for a contrary reason, viz. because the ideas they stand for are supposed conformable to the reality of things, and are referred to standards made by nature. In our ideas of substances we have not the liberty, as in mixed modes, to frame what combinations we think fit, to be the characteristical notes to rank and denominate things by. In these we must follow nature, suit our complex ideas to real existences, and regulate the

signification of their names by the things themselves, if we will have our names to be signs of them, and stand for them. Here, it is true, we have patterns to follow; but patterns that will make the signification of their names very uncertain: for names must be of a very unsteady and various meaning, if the ideas they stand for be referred to standards without us, that either cannot be known at all, or can be known but imperfectly and uncertainly.

§ 12. *Names of substances referred.*

The names of substances have, as has been shown, a double reference in their ordinary use.

1. *To real essences that cannot be known.*

First, sometimes they are made to stand for, and so their signification is supposed to agree to the real constitution of things, from which all their properties flow, and in which they all centre. But this real constitution, or (as it is apt to be called) essence being utterly unknown to us, any sound that is put to stand for it, must be very uncertain in its application; and it will be impossible to know what things are, or ought to be called an horse, or anatomy, when those words are put for real essences, that we have no ideas of at all. And therefore, in this supposition, the names of substances being referred to standards that cannot be known, their significations can never be adjusted and established by those standards.

2. *To co-existing qualities, which are known but imperfectly.*

Secondly, the simple ideas that are found to co-exist in substances being that which their names immediately signify, these as united in the several sorts of things, are the proper standards to which their names are referred, and by which their significations may be best rectified. But neither will these archetypes so well serve to this purpose, as to leave these names without very various and uncertain significa-

tions. Because these simple ideas that co-exist, and are united in the same subject being very numerous, and having all an equal right to go into the complex specific idea, which the specific name is to stand for; men though they propose to themselves the very same subject to consider, yet frame very different ideas about it; and so the name they use for it unavoidably comes to have, in several men, very different significations. The simple qualities which make up the complex ideas being most of them powers, in relation to changes, which they are apt to make in, or receive from other bodies, are almost infinite. He that shall but observe what a great variety of alterations any one of the baser metals is apt to receive from the different application only of fire; and how much a greater number of changes any of them will receive in the hands of a chemist, by the application of other bodies; will not think it strange that I count the properties of any sort of bodies not easy to be collected, and completely known by the ways of inquiry, which our faculties are capable of. They being therefore at least so many, that no man can know the precise and definite number, they are differently discovered by different men, according to their various skill, attention, and ways of handling; who therefore cannot choose but have different ideas of the same substance, and therefore make the signification of its common name very various and uncertain. For the complex ideas of substances being made up of such simple ones as are supposed to co-exist in nature, every one has a right to put into his complex idea those qualities he has found to be united together. For though in the substance of gold one satisfies himself with colour and weight, yet another thinks solubility in aq. regia as necessary to be joined with that colour in his idea of gold, as any one does its fusibility; solubility in aq. regia being a quality as

constantly joined with its colour and weight, as fusibility, or any other; others put into it ductility or fixedness, &c. as they have been taught by tradition or experience. Who of all these has established the right signification of the word gold? or who shall be the judge to determine? Each has its standard in nature, which he appeals to, and with reason thinks he has the same right to put into his complex idea, signified by the word gold, those qualities which upon trial he has found united as another, who was not so well examined, has to leave them out; or a third, who has made other trials has to put in others. For the union in nature of these qualities being the true ground of their union in one complex idea, who can say, one of them has more reason to be put in, or left out, than another? From hence it will always unavoidably follow, that the complex ideas of substances, in men using the same name for them, will be very various; and so the significations of those names very uncertain.

§ 14.—3. *To co-existing qualities which are known but imperfectly.*

Besides, there is scarce any particular thing existing, which, in some of its simple ideas, does not communicate with a greater, and in others a less number of particular beings: who shall determine in this case which are those that are to make up the precise collection that is to be signified by the specific name; or can with any just authority prescribe, which obvious or common qualities are to be left out; or which more secret, or more particular, are to be put into the signification of the name of any substance? All which together seldom or never fail to produce that various and doubtful signification in the names of substances, which causes such uncertainty, disputes, or mistakes, when we come to a philosophical use of them.

§ 15. *With this imperfection they may serve for civil, but not well for philosophical use.*

It is true, as to civil and common conversation, the general names of substances, regulated in their ordinary signification by some obvious qualities (as by the shape and figure in things of known seminal propagation, and in other substances, for the most part by colour, joined with some other sensible qualities) do well enough to design the things men would be understood to speak of: and so they usually conceive well enough the substances meant by the word gold, or apple, to distinguish the one from the other. But in philosophical inquiries and debates, where general truths are to be established, and consequences drawn from positions laid down; there the precise signification of the names of substances will be found, not only not to be well established, but also very hard to be so. For example, he that shall make malleableness, or a certain degree of fixedness, a part of his complex idea of gold, may make propositions concerning gold, and draw consequences from them, that will truly and clearly follow from gold, taken in such a signification: but yet such as another man can never be forced to admit, nor be convinced of their truth, who makes not malleableness, or the same degree of fixedness, part of that complex idea, that the name gold, in his use of it, stands for.

§ 16. *Instance, liquor.*

This is a natural, and almost unavoidable imperfection in almost all the names of substances, in all languages whatsoever which men will easily find, when once passing from confused or loose notions, they come to more strict and close inquiries. For then they will be convinced how doubtful and obscure those words are in their signification, which in ordinary use appeared very clear and determined. I was once in a meeting of very learned and ingenious physicians, where by chance there arose a ques-

tion, whether any liquor passed through the filaments of the nerves. The debate having been managed a good while, by variety of arguments on both sides, I (who had been used to suspect, that the greatest part of disputes was more about the signification of words than a real difference in the conception of things) desired, that before they went any farther on in this dispute, they would first examine, and establish amongst them, what the word liquor signified. They at first were a little surprised at the proposal; and had they been persons less ingenious, they might perhaps have taken it for a very frivolous or extravagant one: since there was no one there that thought not himself to understand very perfectly what the word liquor stood for; which I think too none of the most perplexed names of substances. However, they were pleased to comply with my motion, and upon examination found, that the signification of that word was not so settled and certain as they had all imagined; but that each of them made it a sign of a different complex idea. This made them perceive that the main of their dispute was about the signification of that term; and that they differed very little in their opinions, concerning some fluid and subtle matter, passing through the conduits of the nerves; though it was not so easy to agree whether it was to be called liquor or no, a thing, which, when considered, they thought it not worth the contending about.

§ 17. *Instance, gold.*

How much this is the case, in the greatest part of disputes that men are engaged so hotly in, I shall perhaps have an occasion in another place to take notice. Let us only here consider a little more exactly the fore-mentioned instance of the word gold, and we shall see how hard it is precisely to determine its signification. I think all agree to make it stand for a body of a certain yellow shining colour; which

being the idea to which children have annexed that name, the shining yellow part of a peacock's tail is properly to them gold. Others finding fusibility joined with that yellow colour in certain parcels of matter, make of that combination a complex idea, to which they give the name gold to denote a sort of substances; and so exclude from being gold all such yellow shining bodies, as by fire will be reduced to ashes; and admit to be of that species, or to be comprehended under that name gold, only such substances as having that shining yellow colour will by fire be reduced to fusion, and not to ashes. Another by the same reason adds the weight, which being a quality, as straitly joined with that colour, as its fusibility, he thinks has the same reason to be joined in its idea, and to be signified by its name: and therefore the other made up of body, of such a colour and fusibility, to be imperfect; and so on of all the rest: wherein no one can shew a reason why some of the inseparable qualities, that are always united in nature, should be put into the nominal essence, and others left out: or why the word gold, signifying that sort of body the ring on his finger is made of, should determine that sort rather by its colour, weight, and fusibility, than by its colour, weight, and solubility in aq. regia: since the dissolving it by that liquor is as inseparable from it as the fusion by fire; and they are both of them nothing but the relation which that substance has to two other bodies, which have a power to operate differently upon it. For by what right is it that fusibility comes to be a part of the essence signified by the word gold, and solubility but a property of it? or why is its colour part of the essence, and its malleableness but a property? That which I mean is this, that these being all but properties depending on its real constitution, and nothing but powers, either active or passive, in reference to other bodies: no one has authority to deter-

mine the signification of the word gold (as referred to such a body existing in nature) more to one collection of ideas to be found in that body than to another: whereby the signification of that name must unavoidably be very uncertain; since, as has been said, several people observe several properties in the same substance; and, I think, I may say nobody at all. And therefore we have but very imperfect descriptions of things, and words have very uncertain significations.

§ 18. *The names of simple ideas the least doubtful.*

From what has been said, it is easy to observe what has been before remarked, viz. That the names of simple ideas are, of all others, the least liable to mistakes, and that for these reasons. First, because the ideas they stand for, being each but one single perception, are much easier got, and more clearly retained, than the more complex ones, and therefore are not liable to the uncertainty which usually attends those compounded ones of substances and mixed modes, in which the precise number of simple ideas, that make them up; are not easily agreed, and so readily kept in the mind. And secondly, because they are never referred to any other essence, but barely that perception they immediately signify: which reference is that which renders the signification of the names of substances naturally so perplexed, and gives occasion to so many disputes. Men that do not perversely use their words, or on purpose set themselves to cavil, seldom mistake in any language, which they are acquainted with, the use and signification of the names of simple ideas: white and sweet, yellow and bitter, carry a very obvious meaning with them, which every one precisely comprehends, or easily perceives he is ignorant of, and seeks to be informed. But what precise collection of simple ideas modesty or frugality stand for in another's use, is not so certainly known. And how-

ever we are apt to think we well enough know what is meant by gold or iron; yet the precise complex idea, others make them the signs of, is not so certain: and I believe it is very seldom that, in speaker and hearer, they stand for exactly the same collection. Which must needs produce mistakes and disputes, when they are made use of in discourses, wherein men have to do with universal propositions, and would settle in their minds universal truths, and consider the consequences that follow from them.

§ 19. *And next to them, simple modes.*

By the same rule, the names of simple modes are, next to those of simple ideas, least liable to doubt and uncertainty, especially those of figure and number, of which men have so clear and distinct ideas. Who ever, that had a mind to understand them, mistook the ordinary meaning of seven, or a triangle? And in general the least compounded ideas in every kind have the least dubious names.

§ 20. *The most doubtful are the names of very compounded mixed modes and substances.*

Mixed modes therefore, that are made up but of a few and obvious simple ideas, have usually names of no very uncertain signification. But the names of mixed modes, which comprehend a great number of simple ideas, are commonly of a very doubtful and undetermined meaning, as has been shown. The names of substances being annexed to ideas that are neither the real essences nor exact representations of the patterns they are referred to, are liable yet to greater imperfection and uncertainty, especially when we come to a philosophical use of them.

§ 21. *Why this imperfection charged upon words.*

The great disorder that happens in our names of substances, proceeding for the most part from our want of knowledge, and inability to penetrate into their real constitutions, it may probably be wondered, why I charge this as an imperfection rather upon our

words than understandings. This exception has so much appearance of justice, that I think myself obliged to give a reason why I have followed this method. I must confess then, that when I first began this discourse of the understanding, and a good while after, I had not the least thought that any consideration of words was at all necessary to it. But when having passed over the original and composition of our ideas, I began to examine the extent and certainty of our knowledge, I found it had so near a connexion with words, that, unless their force and manner of signification were first well observed, there could be very little said clearly and pertinently concerning knowledge; which being conversant about truth, had constantly to do with propositions. And though it terminated in things, yet it was for the most part so much by the intervention of words, that they seemed scarce separable from our general knowledge. At least they interpose themselves so much between our understandings and the truth which it would contemplate and apprehend, that like the medium through which visible objects pass, their obscurity and disorder do not seldom cast a mist before our eyes, and impose upon our understandings. If we consider, in the fallacies men put upon themselves as well as others, and the mistakes in men's disputes and notions, how great a part is owing to words, and their uncertain or mistaken significations, we shall have reason to think this no small obstacle in the way to knowledge; which, I conclude, we are the more carefully to be warned of, because it has been so far from being taken notice of as an inconvenience, that the arts of improving it have been made the business of men's study; and obtained the reputation of learning and subtilty, as we shall see in the following chapter. But I am apt to imagine, that were the imperfections of language, as the instrument of knowledge, more thoroughly weighed, a great many of

the controversies that make such a noise in the world, would of themselves cease; and the way to knowledge, and perhaps peace too, lie a great deal opener than it does.

§ 22. *This should teach us moderation, in imposing our own sense of old authors.*

Sure I am, that the signification of words in all languages depending very much on the thoughts, notions, and ideas of him that uses them, must unavoidably be of great uncertainty to men of the same language and country. This is so evident in the Greek authors, that he that shall peruse their writings will find in almost every one of them a distinct language, though the same words. But when to this natural difficulty in every country there shall be added different countries and remote ages, wherein the speakers and writers had very different notions, tempers, customs, ornaments and figures of speech, &c. every one of which influenced the signification of their words then, though to us now they are lost and unknown; it would become us to be charitable one to another in our interpretations or misunderstanding of those ancient writings: which though of great concernment to be understood, are liable to the unavoidable difficulties of speech, which (if we except the names of simple ideas, and some very obvious things) is not capable, without a constant defining the terms, of conveying the sense and intention of the speaker; without any manner of doubt and uncertainty, to the hearer. And in discourses of religion, law, and morality, as they are matters of the highest concernment, so there will be the greatest difficulty.

§ 23.

The volumes of interpreters and commentators on the old and new Testament are but too manifest proofs of this. Though every thing said in the text be infallibly true, yet the reader may be, nay cannot choose but be very fallible in the understanding

of it. Nor is it to be wondered, that the will of God, when cloathed in words, should be liable to that doubt and uncertainty, which unavoidably attends that sort of conveyance; when even his Son, whilst cloathed in flesh, was subject to all the frailties and inconveniencies of human nature, sin excepted. And we ought to magnify his goodness that he hath spread before all the world such legible characters of his works and providence, and given all mankind so sufficient a light of reason, that they to whom this written word never came, could not (whenever they set themselves to search) either doubt of the being of a God, or of the obedience due to him. Since then the precepts of natural religion are plain, and very intelligible to all mankind, and seldom come to be controverted; and other revealed truths, which are conveyed to us by books and languages, are liable to the common and natural obscurities and difficulties incident to words; methinks it would become us to be more careful and diligent in observing the former, and less magisterial, positive, and imperious, in imposing our own sense and interpretations of the latter.

CHAP. X.

OF THE ABUSE OF WORDS.

§ 1. *Abuse of words.*

BESIDES the imperfection that is naturally in language, and the obscurity and confusion that is so hard to be avoided in the use of words, there are se-

veral wilful faults and neglects which men are guilty of in this way of communication, whereby they render these signs less clear and distinct in their signification, than naturally they need to be.

§ 2. *First, Words without any, or without clear ideas.*

First, In this kind, the first and most palpable abuse is, the using of words without clear and distinct ideas; or, which is worse, signs without any thing signified. Of these there are two sorts:

I. One may observe, in all languages, certain words, that if they be examined, will be found, in their first original and their appropriated use, not to stand for any clear and distinct ideas. These, for the most part, the several sects of philosophy and religion have introduced. For their authors, or promoters, either affecting something singular and out of the way of common apprehensions, or to support some strange opinions, or cover some weakness of their hypothesis, seldom fail to coin new words, and such as, when they come to be examined, may justly be called insignificant terms. For having either had no determinate collection of ideas annexed to them, when they were first invented; or at least such as, if well examined, will be found inconsistent; it is no wonder if afterwards, in the vulgar use of the same party, they remain empty sounds, with little or no signification, amongst those who think it enough to have them often in their mouths, as the distinguishing characters of their church, or school, without much troubling their heads to examine what are the precise ideas they stand for. I shall not need here to heap up instances; every man's reading and conversation will sufficiently furnish him; or if he wants to be better stored, the great mint-masters of this kind of terms, I mean the school men and metaphysicians (under which, I think, the disputing natural and moral philosophers of these latter ages may be

comprehended) have wherewithal abundantly to content him.

§ 3.

II. Others there be, who extend this abuse yet farther, who take so little care to lay by words, which in their primary notation have scarce any clear and distinct ideas which they are annexed to, that by an unpardonable negligence they familiarly use words, which the propriety of language has affixed to very important ideas, without any distinct meaning at all. Wisdom, glory, grace, &c. are words frequent enough in every man's mouth; but if a great many of those who use them, should be asked what they mean by them, they would be at a stand, and not know what to answer: a plain proof, that though they have learned those sounds, and have them ready at their tongue's end, yet there are no determined ideas laid up in their minds, which are to be expressed to others by them.

§ 4. *Occasioned by learning names before the ideas they belong to.*

Men having been accustomed from their cradles to learn words, which are easily got and retained, before they knew, or had framed the complex ideas, to which they were annexed, or which were to be found in the things they were thought to stand for; they usually continue to do so all their lives; and without taking the pains necessary to settle in their minds determined ideas, they use their words for such unsteady and confused notions as they have, contenting themselves with the same words other people use: as if their very sound necessarily carried with it constantly the same meaning. This, though men make a shift with, in the ordinary occurrences of life, where they find it necessary to be understood; and therefore they make signs till they are so; yet this insignificancy in their words, when they come to reason concerning either their tenets or interest, ma-

nifestly fills their discourse with abundance of empty unintelligible noise and jargon, especially in moral matters, where the words for the most part standing for arbitrary and numerous collections of ideas, not regularly and permanently united in nature, their bare sounds are often only thought on, or at least very obscure and uncertain notions annexed to them. Men take the words they find in use amongst their neighbours; and that they may not seem ignorant what they stand for, use them confidently, without much troubling their heads about a certain fixed meaning; whereby, besides the ease of it, they obtain this advantage, that as in such discourses they seldom are in the right, so they are as seldom to be convinced that they are in the wrong; it being all one to go about to draw those men out of their mistakes, who have no settled notions, as to dispossess a vagrant of his habitation, who has no settled abode. This I guess to be so; and every one may observe in himself and others, whether it be or no.

§ 5.—2. *Unsteady application of them.*

Secondly, another great abuse of words is inconsistency in the use of them. It is hard to find a discourse written of any subject, especially of controversy, wherein one shall not observe, if he read with attention, the same words (and those commonly the most material in the discourse, and upon which the argument turns) used sometimes for one collection of simple ideas, and sometimes for another: which is a perfect abuse of language. Words being intended for signs of my ideas, to make them known to others, not by any natural signification, but by a voluntary imposition, it is plain cheat and abuse, when I make them stand sometimes for one thing, and sometimes for another; the wilful doing whereof, can be imputed to nothing but great folly, or greater dishonesty. And a man, in his accounts with another, may, with as much fairness, make the charac-

ters of numbers stand sometimes for one, and sometimes for another collection of units (*v. g.* this character 3 stand sometimes for three, sometimes for four, and sometimes for eight) as in his discourse, or reasoning, make the same words stand for different collections of simple ideas. If men should do so in their reckonings, I wonder who would have to do with them? One who would speak thus, in the affairs and business of the world, and call 8 sometimes seven, and sometimes nine, as best served his advantage, would presently have clapped upon him one of the two names men are commonly disgusted with. And yet in arguings and learned contests, the same sort of proceedings passes commonly for wit and learning: but to me it appears a greater dishonesty, than the misplacing of counters in the casting up a debt; and the cheat the greater, by how much truth is of greater concernment and value than money.

§ 6.—3. *Affected obscurity by wrong application.*

Thirdly, another abuse of language is an affected obscurity, by either applying old words to new and unusual significations, or introducing new and ambiguous terms, without defining either; or else putting them so together, as may confound their ordinary meaning. Though the Peripatetic philosophy has been most eminent in this way, yet other sects have not been wholly clear of it. There are scarce any of them that are not cumbered with some difficulties (such is the imperfection of human knowledge) which they have been fain to cover with obscurity of terms, and to confound the signification of words, which, like a mist before people's eyes, might hinder their weak parts from being discovered. That body and extension, in common use, stand for two distinct ideas, is plain to any one that will but reflect a little. For were their signification precisely the same, it would be proper, and as intelligible to say, the body of an extension, as the extension of a body; and

yet there are those who find it necessary to confound their signification. To this abuse, and the mischiefs of confounding the signification of words, logic and the liberal sciences, as they have been handled in the schools, have given reputation; and the admired art of disputing hath added much to the natural imperfection of languages, whilst it has been made use of and fitted to perplex the signification of words, more than to discover the knowledge and truth of things: and he that will look into that sort of learned writings, will find the words there much more obscure, uncertain, and undetermined in their meaning, than they are in ordinary conversation.

§ 7. *Logic and dispute have much contributed to this.*

This is unavoidably to be so, where men's parts and learning are estimated by their skill in disputing. And if reputation and reward shall attend these conquests, which depend mostly on the fineness and niceties of words, it is no wonder if the wit of man, so employed, should perplex, involve, and subtilize the signification of sounds, so as never to want something to say, in opposing or defending any question; the victory being adjudged not to him who had truth on his side, but the last word in the dispute.

§ 8. *Calling it subtilty.*

This, though a very useless skill, and that which I think the direct opposite to the ways of knowledge, hath yet passed hitherto under the laudable and esteemed names of subtilty and acuteness: and has had the applause of the schools, and encouragement of one part of the learned men of the world. And no wonder, since the philosophers of old (the disputing and wrangling philosophers I mean, such as Lucian wittily and with reason taxes) and the schoolmen since, aiming at glory and esteem for their great and universal knowledge, easier a great deal to be pretended to than really acquired, found this a good

expedient to cover their ignorance with a curious and inexplicable web of perplexed words, and procure to themselves the admiration of others by unintelligible terms, the apter to produce wonder, because they could not be understood: whilst it appears in all history, that these profound doctors were no wiser, nor more useful than their neighbours; and brought but small advantage to human life, or the societies wherein they lived: unless the coining of new words, where they produced no new things to apply them to, or the perplexing or obscuring the signification of old ones, and so bringing all things into question and dispute, were a thing profitable to the life of man, or worthy commendation and reward.

§ 9. *This learning very little benefits society.*

For notwithstanding these learned disputants, these all-knowing doctors, it was to the unscholastic statesman, that the governments of the world owed their peace, defence, and liberties; and from the illiterate and contemned mechanic (a name of disgrace) that they received the improvements of useful arts. Nevertheless, this artificial ignorance, and learned gibberish, prevailed mightily in these last ages, by the interest and artifice of those who found no easier way to that pitch of authority and dominion they have attained, than by amusing the men of business and ignorant with hard words, or employing the ingenious and idle in intricate disputes about unintelligible terms, and holding them perpetually entangled in that endless labyrinth. Besides, there is no such way to gain admittance, or give defence to strange and absurd doctrines, as to guard them round about with legions of obscure, doubtful, and undefined words: which yet make these retreats more like the dens of robbers, or holes of foxes, than the fortresses of fair warriors; which if it be hard to get them out of, it is not for the strength that is in them, but the briars and thorns, and the obscurity of the

thickets they are beset with. For untruth being unacceptable to the mind of man, there is no other defence left for absurdity, but obscurity.

§ 10. *But destroys the instruments of knowledge and communication.*

Thus learned ignorance, and this art of keeping, even inquisitive men, from true knowledge, hath been propagated in the world, and hath much perplexed whilst it pretended to inform the understanding. For we see that other well-meaning and wise men, whose education and parts had not acquired that acuteness, could intelligibly express themselves to one another; and in its plain use make a benefit of language. But though unlearned men well enough understood the words white and black, &c. and had constant notions of the ideas signified by those words; yet there were philosophers found, who had learning and subtilty enough to prove, that snow was black; *i. e.* to prove, that white was black. Whereby they had the advantage to destroy the instruments and means of discourse, conversation, instruction, and society; whilst with great art and subtilty they did no more but perplex and confound the signification of words, and thereby render language less useful, than the real defects of it had made it; a gift, which the illiterate had not attained to.

§ 11. *As useful as to confound the sound of the letters.*

These learned men did equally instruct men's understandings, and profit their lives, as he who should alter the signification of known characters, and, by a subtle device of learning, far surpassing the capacity of the illiterate, dull, and vulgar, should in his writing, show that he could put A for B, and D for E, &c. to the no small admiration and benefit of his reader: it being as senseless to put black, which is a word agreed on to stand for one sensible idea, to put it, I say, for another, or the contrary idea, *i. e.* to call snow black, as to put this mark A, which is a

character agreed on to stand for one modification of sound, made by a certain motion of the organs of speech, for B ; which is agreed on to stand for another modification of sound, made by another certain mode of the organs of speech.

§ 12. *This art has perplexed religion and justice.*

Nor hath this mischief stopped in logical niceties, or curious empty speculations ; it hath invaded the great concernments of human life and society, obscured and perplexed the material truths of law and divinity ; brought confusion, disorder, and uncertainty into the affairs of mankind ; and if not destroyed, yet in a great measure rendered useless, these two great rules, religion and justice. What have the greatest part of the comments and disputes upon the laws of God and man served for, but to make the meaning more doubtful, and perplex the sense ? What hath been the effect of those multiplied curious distinctions and acute niceties, but obscurity and uncertainty, leaving the words more unintelligible, and the reader more at a loss ? How else comes it to pass that princes, speaking or writing to their servants, in their ordinary commands, are easily understood ; speaking to their people, in their laws, are not so ? And, as I remarked before, doth it not often happen, that a man of an ordinary capacity very well understands a text or a law that he reads, till he consults an expositor, or goes to counsel ; who, by that time he hath done explaining them, makes the words signify either nothing at all, or what he pleases.

§ 13. *And ought not to pass for learning.*

Whether any by-interests of these professions have occasioned this, I will not here examine ; but I leave it to be considered, whether it would not be well for mankind, whose concernment it is to know things as they are, and to do what they ought, and not to spend their lives in talking about them, or tossing words

to and fro; whether it would not be well, I say, that the use of words were made plain and direct, and that language, which was given us for the improvement of knowledge, and bond of society, should not be employed to darken truth, and unsettle people's rights; to raise mists, and render unintelligible both morality and religion? Or that at least, if this will happen, it should not be thought learning or knowledge to do so?

§ 14.—4. *Taking them for things.*

Fourthly, another great abuse of words is, the taking them for things. This though it in some degree concerns all names in general, yet more particularly affects those of substances. To this abuse those men are most subject, who most confine their thoughts to any one system, and give themselves up into a firm belief of the perfection of any received hypothesis; whereby they come to be persuaded, that the terms of that sect are so suited to the nature of things, that they perfectly correspond with their real existence. Who is there, that has been bred up in the Peripatetic philosophy, who does not think the ten names, under which are ranked the ten predicaments, to be exactly conformable to the nature of things? Who is there of that school, that is not persuaded, that substantial forms, vegetative souls, abhorrence of a vacuum, intentional species, &c. are something real? These words men have learned from their very entrance upon knowledge, and have found their masters and systems lay great stress upon them; and therefore they cannot quit the opinion, that they are conformable to nature, and are the representations of something that really exists. The Platonists have their soul of the world, and the Epicureans their endeavour towards motion in their atoms when at rest. There is scarce any sect in philosophy has not a distinct set of terms, that others understand not; but yet this gibberish, which, in the weakness of human

understanding, serves so well to palliate men's ignorance, and cover their errors, comes, by familiar use amongst those of the same tribe, to seem the most important part of language, and of all other the terms the most significant. And should aerial and ætherial vehicles come once, by the prevalency of that doctrine, to be generally received any where, no doubt those terms would make impressions on men's minds, so as to establish them in the persuasion of the reality of such things, as much as Peripatetic forms and intentional species have heretofore done.

§ 15. *Instance in matter.*

How much names taken for things are apt to mislead the understanding, the attentive reading of philosophical writers would abundantly discover; and that, perhaps, in words little suspected of any such misuse. I shall instance in one only, and that a very familiar one: how many intricate disputes have there been about matter, as if there were some such thing really in nature, distinct from body; as it is evident the word matter stands for an idea distinct from the idea of body? For if the ideas these two terms stood for were precisely the same, they might indifferently, in all places, be put for one another. But we see, that though it be proper to say, there is one matter of all bodies, one cannot say there is one body of all matters: we familiarly say, one body is bigger than another; but it sounds harsh (and I think is never used) to say one matter is bigger than another. Whence comes this then? viz. from hence, that though matter and body be not really distinct, but wherever there is the one there is the other; yet matter and body stand for two different conceptions, whereof the one is incomplete, and but a part of the other. For body stands for a solid extended figured substance, whereof matter is but a partial and more confused conception, it seeming to me to be used for the substance and solidity

of body, without taking in its extension and figure : and therefore it is that speaking of matter, we speak of it always as one, because in truth it expressly contains nothing but the idea of a solid substance, which is every where the same, every where uniform. This being our idea of matter, we no more conceive or speak of different matters in the world, than we do of different solidities ; though we both conceive and speak of different bodies, because extension and figure are capable of variation. But since solidity cannot exist without extension and figure, the taking matter to be the name of something really existing under that precision, has no doubt produced those obscure and unintelligible discourses and disputes, which have filled the heads and books of philosophers concerning *materia prima* ; which imperfection or abuse, how far it may concern a great many other general terms, I leave to be considered. This, I think, I may at least say, that we should have a great many fewer disputes in the world, if words were taken for what they are, the signs of our ideas only, and not for things themselves. For when we argue about matter, or any the like term, we truly argue only about the idea we express by that sound, whether that precise idea agree to any thing really existing in nature or no. And if men would tell what ideas they make their words stand for, there could not be half that obscurity or wrangling, in the search or support of truth, that there is.

§ 16. *This makes errors lasting.*

But whatever inconvenience follows from this mistake of words, this I am sure, that by constant and familiar use they charm men into notions far remote from the truth of things. It would be a hard matter to persuade any one, that the words which his father or schoolmaster, the parson of the parish, or such a reverend doctor used, signified nothing that really existed in nature ; which, perhaps, is none of

the least causes, that men are so hardly drawn to quit their mistakes, even in opinions purely philosophical, and where they have no other interest but truth. For the words they have a long time been used to, remaining firm in their minds, it is no wonder that the wrong notions annexed to them should not be removed.

§ 17.—5. *Setting them for what they cannot signify.*

Fifthly, another abuse of words, is the setting them in the place of things which they do or can by no means signify. We may observe, that in the general names of substances, whereof the nominal essences are only known to us, when we put them into propositions, and affirm or deny any thing about them, we do most commonly tacitly suppose, or intend they should stand for the real essence of a certain sort of substances. For when a man says gold is malleable, he means and would insinuate something more than this, that what I call gold is malleable, (though truly it amounts to no more) but would have this understood, viz. that gold, *i. e.* what has the real essence of gold, is malleable; which amounts to this much, that malleableness depends on, and is inseparable from the real essence of gold. But a man not knowing wherein that real essence consists, the connexion in his mind of malleableness, is not truly with an essence he knows not, but only with the sound gold he puts for it. Thus, when we say, that “animal rationale” is, and “animal implume bipes latis unguibus” is not a good definition of a man; it is plain, we suppose the name man in this case to stand for the real essence of a species, and would signify, that a rational animal better described that real essence than a two-legged animal with broad nails, and without feathers. For else, why might not Plato as properly make the word *ἄνθρωπος*, or man, stand for his complex idea, made up of the idea of a body,

distinguished from others by a certain shape and other outward appearances, as Aristotle make the complex idea, to which he gave the name *ἄνθρωπος*, or man, of body and the faculty of reasoning joined together; unless the name *ἄνθρωπος*, or man, were supposed to stand for something else than what it signifies; and to be put in the place of some other thing than the idea a man professes he would express by it?

§ 18. *v. g. Putting them for the real essences of substances.*

It is true, the names of substances would be much more useful, and propositions made in them much more certain, were the real essences of substances the ideas in our minds which those words signified. And it is for want of those real essences that our words convey so little knowledge or certainty in our discourses about them: and therefore the mind, to remove that imperfection as much as it can, makes them, by a secret supposition, to stand for a thing, having that real essence, as if thereby it made some nearer approaches to it. For though the word man or gold signify nothing truly but a complex idea of properties united together in one sort of substances: yet there is scarce any body in the use of these words, but often supposes each of those names to stand for a thing having the real essence, on which these properties depend. Which is so far from diminishing the imperfection of our words, that by a plain abuse it adds to it when we would make them stand for something, which not being in our complex idea, the name we use can no ways be the sign of.

§ 19. *Hence we think every change of our idea in substances not to change the species.*

This shows us the reason why in mixed modes any of the ideas that make the composition of the

complex one, being left out or changed, it is allowed to be another thing, *i. e.* to be of another species, it is plain in chance-medley, man-slaughter, murder, parricide, &c. The reason whereof is, because the complex idea signified by that name is the real as well as nominal essence; and there is no secret reference of that name to any other essence but that. But in substances it is not so. For though in that called gold one puts into his complex idea what another leaves out, and vice versa; yet men do not usually think that therefore the species is changed: because they secretly in their minds refer that name, and suppose it annexed to a real immutable essence of a thing existing, on which those properties depend. He that adds to his complex idea of gold that of fixedness and solubility in *aq. regia*, which he put not in it before, is not thought to have changed the species; but only to have a more perfect idea, by adding another simple idea, which is always in fact joined with those other, of which his former complex idea consisted. But this reference of the name to a thing, whereof we had not the idea, is so far from helping at all, that it only serves the more to involve us in difficulties. For by this tacit reference to the real essence of that species of bodies, the word gold (which by standing for a more or less perfect collection of simple ideas, serves to design that sort of body well enough in civil discourses) comes to have no signification at all, being put for somewhat, whereof we have no idea at all, and so can signify nothing at all, when the body itself is away. For however it may be thought all one; yet, if well considered, it will be found a quite different thing to argue about gold in name, and about a parcel in the body itself, *v. g.* a piece of leaf-gold laid before us; though in discourse we are fain to substitute the name for the thing.

§ 20. *The cause of the abuse, a supposition of nature's working always regularly.*

That which I think very much disposes men to substitute their names for the real essences of species, is the supposition before-mentioned, that nature works regularly in the production of things, and sets the boundaries to each of those species, by giving exactly the same real internal constitution to each individual, which we rank under one general name. Whereas any one who observes their different qualities, can hardly doubt, that many of the individuals, called by the same name, are, in their internal constitution, as different one from another as several of those which are ranked under different specific names. This supposition, however, that the same precise and internal constitution goes always with the same specific name, makes men forward to take those names for the representatives of those real essences, though indeed they signify nothing but the complex ideas they have in their minds when they use them. So that, if I may so say, signifying one thing, and being supposed for, or put in the place of another, they cannot but, in such a kind of use, cause a great deal of uncertainty in men's discourses; especially in those who have thoroughly imbibed the doctrine of substantial forms, whereby they firmly imagine the several species of things to be determined and distinguished.

§ 21. *This abuse contains two false suppositions.*

But however preposterous and absurd it be to make our names stand for ideas we have not, (or which is all one) essences that we know not, it being in effect to make our words the signs of nothing; yet it is evident to any one, who ever so little reflects on the use men make of their words, that there is nothing more familiar. When a man asks whether this or that thing he sees, let it be a drill, or a monstrous

foetus, be a man or no; it is evident, the question is not, whether that particular thing agree to his complex idea, expressed by the name man: but whether it has in it the real essence of a species of things, which he supposes his name man to stand for. In which way of using the names of substances, there are these false suppositions contained.

First, that there are certain precise essences according to which nature makes all particular things, and by which they are distinguished into species. That every thing has a real constitution, whereby it is what it is, and on which its sensible qualities depend, is past doubt: but I think it has been proved, that this makes not the distinction of species, as we rank them; nor the boundaries of their names.

Secondly, this tacitly also insinuates, as if we had ideas of these proposed essences. For to what purpose else is it to inquire whether this or that thing have the real essence of the species man, if we did not suppose that there were such a specific essence known? which yet is utterly false: and therefore such application of names, as would make them stand for ideas which we have not, must needs cause great disorder in discourses and reasonings about them, and be a great inconvenience in our communication by words.

§ 22.—6. *A supposition that words have a certain and evident signification.*

Sixthly, there remains yet another more general, though perhaps less observed abuse of words: and that is, that men having by a long and familiar use annexed to them certain ideas, they are apt to imagine so near and necessary a connexion between the names and the signification they use them in, that they forwardly suppose one cannot but understand what their meaning is; and therefore one ought to acquiesce in the words delivered, as if it were past doubt, that, in the use of those common received

sounds, the speaker and hearer had necessarily the same precise ideas. Whence presuming, that when they have in discourse used any term, they have thereby, as it were, set before others the very thing they talked of; and so likewise taking the words of others, as naturally standing for just what they themselves have been accustomed to apply them to, they never trouble themselves to explain their own, or understand clearly others meaning. From whence commonly proceed noise and wrangling, without improvement or information; whilst men take words to be the constant regular marks of agreed notions, which in truth are no more but the voluntary and unsteady signs of their own ideas. And yet men think it strange, if in discourse, or (where it is often absolutely necessary) in dispute, one sometimes asks the meaning of their terms: though the arguings one may every day observe in conversation, make it evident, that there are few names of complex ideas which any two men use for the same just precise collection. It is hard to name a word which will not be a clear instance of this. Life is a term, none more familiar. Any one almost would take it for an affront to be asked what he meant by it. And yet if it comes in question, whether a plant, that lies ready formed in the seed, have life: whether the embryo in an egg before incubation, or a man in a swoon without sense or motion, be alive or no; it is easy to perceive that a clear distinct settled idea does not always accompany the use of so known a word as that of life is. Some gross and confused conceptions men indeed ordinarily have, to which they apply the common words of their language; and such a loose use of their words serves them well enough in their ordinary discourses or affairs. But this is not sufficient for philosophical inquiries. Knowledge and reasoning require precise determinate ideas. And though men will not be so importunately dull, as not to understand what others

say without demanding an explication of their terms ; nor so troublesomely critical, as to correct others in the use of the words they receive from them ; yet where truth and knowledge are concerned in the case, I know not what fault it can be to desire the explication of words, whose sense seems dubious ; or why a man should be ashamed to own his ignorance, in what sense another man uses his words, since he has no other way of certainly knowing it, but by being informed. This abuse of taking words upon trust has no where spread so far, nor with so ill effects, as amongst men of letters. The multiplication and obstinacy of disputes, which have so laid waste the intellectual world, is owing to nothing more, than to this ill use of words. For though it be generally believed that there is great diversity of opinions in the volumes and variety of controversies the world is distracted with, yet the most I can find that the contending learned men of different parties do, in their arguings one with another, is, that they speak different languages. For I am apt to imagine, that when any of them quitting terms, think upon things, and know what they think, they think all the same ; though perhaps what they would have, be different.

§ 23. *The ends of language : 1. To convey our ideas.*

To conclude this consideration of the imperfection and abuse of language ; the ends of language in our discourse with others, being chiefly these three : first, to make known one man's thoughts or ideas to another ; secondly, to do it with as much ease and quickness as possible ; and, thirdly, thereby to convey the knowledge of things : language is either abused or deficient, when it fails of any of these three.

First, words fail in the first of these ends, and lay not open one man's ideas to another's view : 1. When men have names in their mouths without any determinate ideas in their minds, whereof they are the signs ; or, 2. When they apply the common received

names of any language to ideas, to which the common use of that language does not apply them : or, 3. When they apply them very unsteadily, making them stand now for one, and by and by for another idea.

§ 24.—2. *To do it with quickness.*

Secondly, men fail of conveying their thoughts with all the quickness and ease that may be, when they have complex ideas without having any distinct names for them. This is sometimes the fault of the language itself, which has not in it a sound yet applied to such a signification ; and sometimes the fault of the man, who has not yet learned the name for that idea he would show another.

§ 25.—3. *Therewith to convey the knowledge of things.*

Thirdly, there is no knowledge of things conveyed by men's words, when their ideas agree not to the reality of things. Though it be a defect, that has its original in our ideas, which are not so conformable to the nature of things, as attention, study, and application might make them ; yet it fails not to extend itself to our words too, when we use them as signs of real beings, which yet never had any reality or existence.

§ 26. *How men's words fail in all these.*

First, he that hath words of any language, without distinct ideas in his mind to which he applies them, does, so far as he uses them in discourse, only make a noise without any sense or signification ; and how learned soever he may seem by the use of hard words or learned terms, is not much more advanced thereby in knowledge, than he would be in learning, who had nothing in his study but the bare titles of books, without possessing the contents of them. For all such words, however put into discourse, according to the right construction of grammatical rules, or the harmony of well-turned periods, do yet amount to nothing but bare sounds, and nothing else.

§ 27.

Secondly, he that has complex ideas, without particular names for them, would be in no better case than a bookseller, who had in his warehouse volumes, that lay there unbound, and without titles; which he could therefore make known to others, only by showing the loose sheets, and communicate them only by tale. This man is hindered in his discourse for want of words to communicate his complex ideas, which he is therefore forced to make known by an enumeration of the simple ones that compose them; and so is fain often to use twenty words, to express what another man signifies in one.

§ 28.

Thirdly, he that puts not constantly the same sign for the same idea, but uses the same words sometimes in one, and sometimes in another signification, ought to pass in the schools and conversation for as fair a man, as he does in the market and exchange, who sells several things under the same name.

§ 29.

Fourthly, he that applies the words of any language to ideas different from those to which the common use of that country applies them, however his own understanding may be filled with truth and light, will not by such words be able to convey much of it to others without defining his terms. For however the sounds are such as are familiarly known, and easily enter the ears of those who are accustomed to them; yet standing for other ideas than those they usually are annexed to, and are wont to excite in the mind of the hearers, they cannot make known the thoughts of him who thus uses them.

§ 30.

Fifthly, he that imagined to himself substances such as never have been, and filled his head with ideas which have not any correspondence with the real nature of things, to which yet he gives settled

and defined names ; may fill his discourse, and perhaps another man's head, with the fantastical imaginations of his own brain, but will be very far from advancing thereby one jot in real and true knowledge.

§ 31.

He that hath names without ideas, wants meaning in his words, and speaks only empty sounds. He that hath complex ideas without names for them, wants liberty and dispatch in his expressions, and is necessitated to use periphrases. He that uses his words loosely and unsteadily, will either be not minded, or not understood. He that applies his names to ideas different from their common use, wants propriety in his language, and speaks gibberish. And he that hath the ideas of substances disagreeing with the real existence of things, so far wants the materials of true knowledge in his understanding, and hath instead thereof chimeras.

§ 32. *How in substances.*

In our notions concerning substances, we are liable to all the former inconveniencies ; *v. g.* he that uses the word tarantula, without having any imagination or idea of what it stands for, pronounces a good word ; but so long means nothing at all by it. 2. He that in a new discovered country shall see several sorts of animals and vegetables, unknown to him before, may have as true ideas of them, as of a horse or stag : but can speak of them only by a description, till he shall either take the names the natives call them by, or give them names himself. 3. He that uses the word body sometimes for pure extension, and sometimes for extension and solidity together, will talk very fallaciously. 4. He that gives the name horse to that idea, which common usage calls mule, talks improperly, and will not be understood. 5. He that thinks the name centaur stands for some real being, imposes on himself, and mistakes words for things.

§ 33. *How in modes and relations.*

In modes and relations generally we are liable only to the four first of these inconveniencies; viz. 1. I may have in my memory the names of modes, as gratitude or charity, and yet not have any precise ideas annexed in my thoughts to those names. 2. I may have ideas, and not know the names that belong to them; *v. g.* I may have the idea of a man's drinking till his colour and humour be altered, till his tongue trips, and his eyes look red, and his feet fail him; and yet not know, that it is to be called drunkenness. 3. I may have the ideas of virtues or vices, and names also, but apply them amiss: *v. g.* when I apply the name frugality to that idea which others call and signify by this sound, covetousness. 4. I may use any of those names with inconstancy. 5. But, in modes and relations, I cannot have ideas disagreeing to the existence of things: for modes being complex ideas, made by the mind at pleasure; and relation being but by way of considering or comparing two things together, and so also an idea of my own making; these ideas can scarce be found to disagree with any thing existing, since they are not in the mind as the copies of things regularly made by nature, nor as properties inseparably flowing from the internal constitution or essence of any substance; but as it were patterns lodged in my memory, with names annexed to them, to denominate actions and relations by, as they come to exist. But the mistake is commonly in my giving a wrong name to my conceptions; and so using words in a different sense from other people, I am not understood, but am thought to have wrong ideas of them, when I give wrong names to them. Only if I put in my ideas of mixed modes or relations any inconsistent ideas together, I fill my head also with chimeras; since such ideas, if well examined, cannot so much as exist in

the mind, much less any real being ever be denominated from them.

§ 34.—7. *Figurative speech also an abuse of language.*

Since wit and fancy find easier entertainment in the world, than dry truth and real knowledge, figurative speeches and allusion in language will hardly be admitted as an imperfection or abuse of it. I confess in discourses where we seek rather pleasure and delight than information and improvement, such ornaments as are borrowed from them can scarce pass for faults. But yet if we would speak of things as they are, we must allow that all the art of rhetorick, besides order and clearness, all the artificial and figurative application of words eloquence hath invented, are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgment, and so indeed are perfect cheats: and therefore however laudable or allowable oratory may render them in harangues and popular addresses, they are certainly, in all discourses that pretend to inform or instruct, wholly to be avoided; and where truth and knowledge are concerned, cannot but be thought a great fault, either of the language or person that makes use of them. What, and how various they are, will be superfluous here to take notice; the books of rhetorick which abound in the world, will instruct those who want to be informed; only I cannot but observe how little the preservation and improvement of truth and knowledge is the care and concern of mankind: since the arts of fallacy are endowed and preferred. It is evident how much men love to deceive and be deceived, since rhetorick, that powerful instrument of error and deceit, has its established professors, is publicly taught, and has always been had in great reputation: and, I doubt not, but it will be thought great boldness, if

not brutality in me, to have said thus much against it. Eloquence, like the fair sex, has too prevailing beauties in it, to suffer itself ever to be spoken against. And it is in vain to find fault with those arts of deceiving, wherein men find pleasure to be deceived.

CHAP. XI.

OF THE REMEDIES OF THE FOREGOING IMPERFECTIONS AND ABUSES.

§ 1. *They are worth seeking.*

THE natural and improved imperfections of languages we have seen above at large; and speech being the great bond that holds society together, and the common conduit whereby the improvements of knowledge are conveyed from one man, and one generation to another; it would well deserve our most serious thoughts to consider what remedies are to be found for the inconveniencies above mentioned.

§ 2. *Are not easy.*

I am not so vain to think, that any one can pretend to attempt the perfect reforming the languages of the world, no not so much as of his own country, without rendering himself ridiculous. To require that men should use their words constantly in the same sense, and for none but determined and uniform ideas, would be to think that all men should have the same notions, and should talk of nothing but what they have clear and distinct ideas of; which is not to be expected by any one, who hath not vanity enough to imagine he can prevail with men to

be very knowing or very silent. And he must be very little skilled in the world, who thinks that a voluble tongue shall accompany only a good understanding; or that men's talking much or little should hold proportion only to their knowledge.

§ 3. *But yet necessary to philosophy.*

But though the market and exchange must be left to their own ways of talking, and gossipings not be robbed of their ancient privilege; though the schools and men of argument would perhaps take it amiss to have any thing offered to abate the length, or lessen the number, of their disputes: yet methinks those who pretend seriously to search after or maintain truth, should think themselves obliged to study how they might deliver themselves without obscurity, doubtfulness, or equivocation, to which men's words are naturally liable, if care be not taken.

§ 4. *Misuse of words the great cause of errors.*

For he that shall well consider the errors and obscurity, the mistakes and confusion, that are spread in the world by an ill use of words, will find some reason to doubt whether language, as it has been employed, has contributed more to the improvement or hindrance of knowledge amongst mankind. How many are there that, when they would think on things, fix their thoughts only on words, especially when they would apply their minds to moral matters? And who then can wonder, if the result of such contemplations and reasonings, about little more than sounds, whilst the ideas they annexed to them are very confused and very unsteady, or perhaps none at all; who can wonder, I say, that such thoughts and reasonings end in nothing but obscurity and mistake, without any clear judgment and knowledge?

§ 5. *Obstinacy.*

This inconvenience, in an ill use of words, men suffer in their own private meditations; but much

more manifest are the disorders which follow from it, in conversation, discourse, and arguings with others. For language being the great conduit, whereby men convey their discoveries, reasonings, and knowledge, from one to another; he that makes an ill use of it, though he does not corrupt the fountains of knowledge, which are in things themselves; yet he does, as much as in him lies, break or stop the pipes, whereby it is distributed to the public use and advantage of mankind. He that uses words without any clear and steady meaning, what does he but lead himself and others into errors? And he that designedly does it, ought to be looked on as an enemy to truth and knowledge. And yet who can wonder, that all the sciences and parts of knowledge have been so overcharged with obscure and equivocal terms, and insignificant and doubtful expressions, capable to make the most attentive or quick-sighted very little or not at all the more knowing or orthodox; since subtilty, in those who make profession to teach or defend truth, hath passed so much for a virtue: a virtue, indeed, which consisting for the most part in nothing but the fallacious and illusory use of obscure or deceitful terms, is only fit to make men more conceited in their ignorance, and more obstinate in their errors.

§ 6. *And wrangling.*

Let us look into the books of controversy of any kind; there we shall see, that the effect of obscure, unsteady or equivocal terms, is nothing but noise and wrangling about sounds, without convincing or bettering a man's understanding. For if the idea be not agreed on betwixt the speaker and hearer, for which the words stand, the argument is not about things, but names. As often as such a word, whose signification is not ascertained betwixt them, comes in use, their understandings have no other object wherein they agree, but barely the sound; the things

that they think on at that time, as expressed by that word, being quite different.

§ 7. *Instance, bat and bird.*

Whether a bat be a bird or no, is not a question; whether a bat be another thing than indeed it is, or have other qualities than indeed it has, for that would be extremely absurd to doubt of: but the question is, 1. Either between those that acknowledged themselves to have but imperfect ideas of one or both of this sort of things, for which these names are supposed to stand; and then it is a real inquiry concerning the name of a bird or a bat, to make their yet imperfect ideas of it more complete, by examining whether all the simple ideas, to which, combined together, they both give the name bird, be all to be found in a bat; but this is a question only of inquirers (not disputers) who neither affirm, nor deny, but examine. Or, 2. It is a question between disputants, whereof the one affirms, and the other denies, that a bat is a bird. And then the question is barely about the signification of one or both these words; in that they not having both the same complex ideas, to which they give these two names, one holds, and the other denies, that these two names may be affirmed one of another. Were they agreed in the signification of these two names, it were impossible they should dispute about them; for they would presently and clearly see (were that adjusted between them) whether all the simple ideas, of the more general name bird, were found in the complex ideas of a bat, or no; and so there could be no doubt whether a bat were a bird or no. And here I desire it may be considered, and carefully examined, whether the greatest part of the disputes in the world are not merely verbal, and about the signification of words; and whether if the terms they are made in were defined, and reduced in their signification (as they must be where they signify any thing) to determined col-

lections of the simple ideas they do or should stand for, those disputes would not end of themselves, and immediately vanish. I leave it then to be considered, what the learning of disputation is, and how well they are employed for the advantage of themselves or others, whose business is only the vain ostentation of sounds; *i. e.* those who spend their lives in disputes and controversies. When I shall see any of those combatants strip all his terms of ambiguity and obscurity (which every one may do in the words he uses himself) I shall think him a champion for knowledge, truth, and peace, and not the slave of vain glory, ambition, or a party.

§ 8.

To remedy the defects of speech before mentioned to some degree, and to prevent the inconveniencies that follow from them, I imagine the observation of these following rules may be of use, till somebody better able shall judge it worth his while to think more maturely on this matter, and oblige the world with his thoughts on it.

1. *Remedy to use no word without an idea.*

First, a man shall take care to use no word without a signification, no name without an idea for which he makes it stand. This rule will not seem altogether needless, to any one who shall take the pains to recollect how often he has met with such words, as instinct, sympathy and antipathy, &c. in the discourse of others, so made use of, as he might easily conclude that those that used them had no ideas in their minds to which they applied them; but spoke them only as sounds, which usually served instead of reasons on the like occasions. Not but that these words, and the like, have very proper significations in which they may be used; but there being no natural connexion between any words and any ideas, these, and any other, may be learned by rote, and pronounced or writ by men, who have no ideas in

their minds, to which they have annexed them, and for which they make them stand; which is necessary they should, if men would speak intelligibly even to themselves alone.

§ 9.—2. *To have distinct ideas annexed to them in modes.*

Secondly, it is not enough a man uses his words as signs of some ideas: those he annexes them to, if they be simple, must be clear and distinct; if complex, must be determinate, *i. e.* the precise collection of simple ideas settled in the mind, with that sound annexed to it, as the sign of that precise determined collection, and no other. This is very necessary in names of modes, and especially moral words; which having no settled objects in nature, from whence their ideas are taken, as from their original, are apt to be very confused. Justice is a word in every man's mouth, but most commonly with a very undetermined loose signification: which will always be so, unless a man has in his mind a distinct comprehension of the component parts, that complex idea consists of: and if it be decomposed, must be able to resolve it still on, till he at last comes to the simple ideas that make it up: and unless this be done, a man makes an ill use of the word, let it be justice, for example, or any other. I do not say, a man need stand to recollect and make this analysis at large, every time the word justice comes in his way: but this at least is necessary, that he have so examined the signification of that name, and settled the idea of all its parts in his mind, that he can do it when he pleases. If one, who makes his complex idea of justice to be such a treatment of the person or goods of another, as is according to law, hath not a clear and distinct idea what law is, which makes a part of his complex idea of justice; it is plain his idea of justice itself will be confused and imperfect. This exactness will, perhaps, be judged very troublesome; and

therefore most men will think they may be excused from settling the complex ideas of mixed modes so precisely in their minds. But yet I must say, till this be done, it must not be wondered that they have a great deal of obscurity and confusion in their own minds, and a great deal of wrangling in their discourse with others.

§ 10. *And distinct and conformable in substances.*

In the names of substances, for a right use of them, something more is required than barely determined ideas. In these the names must also be conformable to things as they exist: but of this I shall have occasion to speak more at large by and by. This exactness is absolutely necessary in inquiries after philosophical knowledge, and in controversies about truth. And though it would be well too, if it extended itself to common conversation, and the ordinary affairs of life; yet I think that is scarce to be expected. Vulgar notions suit vulgar discourses; and both, though confused enough, yet serve pretty well the market and the wake. Merchants and lovers, cooks and taylors, have words wherewithal to dispatch their ordinary affairs; and so, I think, might philosophers and disputants too, if they had a mind to understand, and to be clearly understood.

§ 11.—3. *Propriety.*

Thirdly, it is not enough that men have ideas, determined ideas, for which they make these signs stand; but they must also take care to apply their words as near as may be, to such ideas as common use has annexed them to. For words, especially of languages already framed, being no man's private possession, but the common measure of commerce and communication, it is not for any one, at pleasure, to change the stamp they are current in, nor alter the ideas they are affixed to; or at least, when there is a necessity to do so, he is bound to give notice of it. Men's intentions in speaking are, or at

least should be, to be understood ; which cannot be without frequent explanations, demands, and other the like incommodious interruptions, where men do not follow common use. Propriety of speech is that which gives our thoughts entrance into other men's minds with the greatest ease and advantage ; and therefore deserves some part of our care and study, especially in the names of moral words. The proper signification and use of terms is best to be learned from those, who in their writings and discourses appear to have had the clearest notions, and applied to them their terms with the exactest choice and fitness. This way of using a man's words, according to the propriety of the language, though it have not always the good fortune to be understood ; yet most commonly leaves the blame of it on him, who is so unskilful in the language he speaks, as not to understand it, when made use of as it ought to be.

§ 12. *To make known their meaning.*

Fourthly, but because common use has not so visibly annexed any signification to words, as to make men know always certainly what they precisely stand for ; and because men, in the improvement of their knowledge, come to have ideas different from the vulgar and ordinary received ones, for which they must either make new words, (which men seldom venture to do, for fear of being thought guilty of affectation or novelty) or else must use old ones, in a new signification : therefore after the observation of the foregoing rules, it is sometimes necessary, for the ascertaining the signification of words, to declare their meaning ; where either common use has left it uncertain and loose (as it has in most names of very complex ideas) or where the term, being very material in the discourse, and that upon which it chiefly turns, is liable to any doubtfulness or mistake.

§ 13. *And that three ways.*

As the ideas men's words stand for, are of different sorts; so the way of making known the ideas they stand for, when there is occasion, is also different. For though defining be thought the proper way to make known the proper signification of words; yet there are some words that will not be defined, as there are others, whose precise meaning cannot be made known but by definition; and perhaps a third, which partake somewhat of both the other, as we shall see in the names of simple ideas, modes, and substances.

§ 14.—1. *In simple ideas by synonymous terms, or showing.*

First, when a man makes use of the name of any simple idea, which he perceives is not understood, or is in danger to be mistaken, he is obliged by the laws of ingenuity, and the end of speech, to declare his meaning, and make known what idea he makes it stand for. This, as has been shown, cannot be done by definition; and therefore, when a synonymous word fails to do it, there is but one of these ways left. First, sometimes the naming the subject, wherein that simple idea is to be found, will make its name to be understood by those who are acquainted with that subject, and know it by that name. So to make a countryman understand what "feuille-morte" colour signifies, it may suffice to tell him, it is the colour of withered leaves falling in autumn. Secondly, but the only sure way of making known the signification of the name of any simple idea is by presenting to his senses that subject, which may produce it in his mind, and make him actually have the idea that word stands for.

§ 15.—2. *In mixed modes, by definition.*

Secondly, mixed modes, especially those belonging to morality, being most of them such combinations of ideas, as the mind puts together of its own choice,

and whereof there are not always standing patterns to be found existing; the signification of their names cannot be made known, as those of simple ideas, by any showing; but, in recompence thereof, may be perfectly and exactly defined. For they being combinations of several ideas, that the mind of man has arbitrarily put together, without reference to any archetypes, men may, if they please, exactly know the ideas that go to each composition, and so both use these words in a certain and undoubted signification, and perfectly declare, when there is occasion, what they stand for. This, if well considered, would lay great blame on those, who make not their discourses about moral things very clear and distinct. For since the precise signification of the names of mixed modes, or, which is all one, the real essence of each species is to be known, they being not of nature's but man's making, it is a great negligence and perverseness to discourse of moral things with uncertainty and obscurity; which is more pardonable in treating of natural substances, where doubtful terms are hardly to be avoided, for a quite contrary reason, as we shall see by and by.

§ 16. *Morality capable of demonstration.*

Upon this ground it is, that I am bold to think, that morality is capable of demonstration, as well as mathematics: since the precise real essence of the things moral words stand for may be perfectly known; and so the congruity and incongruity of the things themselves be certainly discovered; in which consists perfect knowledge. Nor let any one object, that the names of substances are often to be made use of in morality, as well as those of modes, from which will arise obscurity. For as to substances, when concerned in moral discourses, their divers natures are not so much inquired into, as supposed; *v. g.* when we say that man is subject to law, we mean nothing by man, but a corporeal rational crea-

ture : what the real essence or other qualities of that creature are, in this case, is no way considered. And therefore whether a child or changeling be a man in a physical sense, may amongst the naturalists be as disputable as it will, it concerns not at all the moral man, as I may call him, which is this immoveable unchangeable idea, a corporeal rational being. For were there a monkey, or any other creature to be found, that has the use of reason to such a degree as to be able to understand general signs, and to deduce consequences about general ideas, he would no doubt be subject to law, and in that sense be a man, how much soever he differed in shape from others of that name. The names of substances, if they be used in them as they should, can no more disturb moral than they do mathematical discourses : where, if the mathematician speaks of a cube or globe of gold, or any other body, he has his clear settled idea which varies not, though it may by mistake be applied to a particular body to which it belongs not.

§ 17. *Definitions can make moral discourses clear.*

This I have here mentioned by the by, to show of what consequence it is for men, in their names of mixed modes, and consequently in all their moral discourses, to define their words when there is occasion : since thereby moral knowledge may be brought to so great clearness and certainty. And it must be great want of ingenuity (to say no worse of it) to refuse to do it : since a definition is the only way whereby the precise meaning of moral words can be known ; and yet a way whereby their meaning may be known certainly, and without leaving any room for any contest about it. And therefore the negligence or perverseness of mankind cannot be excused, if their discourses in morality be not much more clear than those in natural philosophy : since they are about ideas in the mind, which are none of them false or disproportionate : they having no external beings

for the archetypes which they are referred to, and must correspond with. It is far easier for men to frame in their minds an idea which shall be the standard to which they will give the name justice, with which pattern so made, all actions that agree shall pass under that denomination; than, having seen Aristides, to frame an idea that shall in all things be exactly like him; who is as he is, let men make what idea they please of him. For the one, they need but know the combination of ideas that are put together in their own minds; for the other, they must inquire into the whole nature, and abstruse hidden constitution, and various qualities of a thing existing without them.

§ 18. *And is the only way.*

Another reason that makes the defining of mixed modes so necessary, especially of moral words, is what I mentioned a little before, viz. that it is the only way whereby the signification of the most of them can be known with certainty. For the ideas they stand for, being for the most part such whose component parts no where exist together, but scattered and mingled with others, it is the mind alone that collects them, and gives them the union of one idea: and it is only by words, enumerating the several simple ideas which the mind has united, that we can make known to others what their name stand for; the assistance of the senses in this case not helping us, by the proposal of sensible objects, to show the ideas which our names of this kind stand for, as it does often in the names of sensible simple ideas, and also to some degree in those of substances.

§ 19.—3. *In substances, by showing and defining.*

Thirdly, for the explaining the signification of the names of substances, as they stand for the ideas we have of their distinct species, both the fore-mentioned ways, viz. of showing and defining, are requisite in many cases to be made use of. For there being

ordinarily in each sort some leading qualities, to which we suppose the other ideas, which make up our complex idea of that species, annexed; we forwardly give the specific name to that thing, wherein that characteristical mark is found, which we take to be the most distinguishing idea of that species. These leading or characteristical (as I may call them) ideas, in the sorts of animals and vegetables, are (as has been before remarked, ch. vi. § 29. and ch. ix. § 15.) mostly figure, and in inanimate bodies, colour, and in some both together. Now,

§ 20. *Ideas of the leading qualities of substances are best got by showing.*

These leading sensible qualities are those which make the chief ingredients of our specific ideas, and consequently the most observable and invariable part in the definitions of our specific names, as attributed to sorts of substances coming under our knowledge. For though the sound man, in its own nature, be as apt to signify a complex idea made up of animality and rationality, united in the same subject, as to signify any other combination; yet used as a mark to stand for a sort of creatures we count of our own kind, perhaps, the outward shape is as necessary to be taken into our complex idea, signified by the word man, as any other we find in it: and therefore why Plato's "animal implume bipes latis ungui-
"bus" should not be a good definition of the name man, standing for that sort of creatures, will not be easy to show: for it is the shape, as the leading quality, that seems more to determine that species, than a faculty of reasoning, which appears not at first, and in some never. And if this be not allowed to be so, I do not know how they can be excused from murder, who kill monstrous births, (as we call them) because of an unordinary shape, without knowing whether they have a rational soul or no; which can be no more discerned in a well-formed than ill-shap-

ed infant, as soon as born. And who is it has informed us, that a rational soul can inhabit no tement, unless it has just such a sort of frontispiece; or can join itself to, and inform no sort of body but one that is just of such an outward structure?

§ 21.

Now these leading qualities are best made known by showing, and can hardly be made known otherwise. For the shape of an horse, or cassuary, will be but rudely and imperfectly imprinted on the mind by words; the sight of the animals doth it a thousand times better: and the idea of the particular colour of gold is not to be got by any description of it, but only by the frequent exercise of the eyes about it, as is evident in those who are used to this metal, who will frequently distinguish true from counterfeit, pure from adulterate, by the sight; where others (who have as good eyes, but yet by use have not got the precise nice idea of that peculiar yellow) shall not perceive any difference. The like may be said of those other simple ideas, peculiar in their kind to any substance; for which precise ideas there are no peculiar names. The particular ringing sound there is in gold, distinct from the sound of other bodies, has no particular name annexed to it, no more than the particular yellow that belongs to that metal.

§ 22. *The ideas of their powers best by definition.*

But because many of the simple ideas that make up our specific ideas of substances, are powers which lie not obvious to our senses in the things as they ordinarily appear; therefore in the signification of our names of substances, some part of the signification will be better made known by enumerating those simple ideas, than by showing the substance itself. For he that to the yellow shining colour of gold got by sight, shall, from my enumerating them, have the ideas of great ductility, fusibility, fixedness, and so-

lubility in aq. regia, will have a perfecter idea of gold, than he can have by seeing a piece of gold, and thereby imprinting in his mind only its obvious qualities. But if the formal constitution of this shining, heavy, ductile thing (from whence all these its properties flow) lay open to our senses, as the formal constitution, or essence of a triangle does, the signification of the word gold might as easily be ascertained as that of triangle.

§ 23. *A reflection on the knowledge of spirits.*

Hence we may take notice how much the foundation of all our knowledge of corporeal things lies in our senses. For how spirits, separate from bodies (whose knowledge and ideas of these things are certainly much more perfect than ours) know them, we have no notion, no idea at all. The whole extent of our knowledge or imagination reaches not beyond our own ideas limited to our ways of perception. Though yet it be not to be doubted that spirits of a higher rank than those immersed in flesh, may have as clear ideas of the radical constitution of substances, as we have of a triangle, and so perceive how all their properties and operations flow from thence: but the manner how they come by that knowledge exceeds our conceptions.

§ 24.—4. *Ideas also of substances must be conformable to things.*

But though definitions will serve to explain the names of substances as they stand for our ideas; yet they leave them not without great imperfection as they stand for things. For our names of substances being not put barely for our ideas, but being made use of ultimately to represent things, and so are put in their place; their signification must agree with the truth of things as well as with men's ideas. And therefore in substances we are not always to rest in the ordinary complex idea, commonly received as the signification of that word, but must go a little far-

ther, and inquire into the nature and properties of the things themselves, and thereby perfect, as much as we can, our ideas of their distinct species; or else learn them from such as are used to that sort of things, and are experienced in them. For since it is intended their names should stand for such collections of simple ideas as do really exist in things themselves, as well as for the complex idea in other men's minds, which in their ordinary acceptation they stand for: therefore to define their names right, natural history is to be inquired into; and their properties are, with care and examination, to be found out. For it is not enough, for the avoiding inconveniencies in discourse and arguings about natural bodies and substantial things, to have learned from the propriety of the language, the common but confused, or very imperfect idea, to which each word is applied, and to keep them to that idea in our use of them: but we must, by acquainting ourselves with the history of that sort of things, rectify and settle our complex idea belonging to each specific name; and in discourse with others, (if we find them mistake us) we ought to tell what the complex idea is, that we make such a name stand for. This is the more necessary to be done by all those who search after knowledge and philosophical verity, in that children, being taught words whilst they have but imperfect notions of things, apply them at random, and without much thinking, and seldom frame determined ideas to be signified by them. Which custom (it being easy, and serving well enough for the ordinary affairs of life and conversation) they are apt to continue when they are men: and so begin at the wrong end, learning words first and perfectly, but make the notions to which they apply those words afterwards very overtly. By this means it comes to pass, that men speaking the proper language of their country, *i. e.* according to grammar rules of that language, do yet

speak very improperly of things themselves; and, by their arguing one with another, make but small progress in the discoveries of useful truths, and the knowledge of things, as they are to be found in themselves, and not in our imaginations; and it matters not much, for the improvement of our knowledge, how they are called.

§ 25. *Not easy to be made so.*

It were therefore to be wished, that men, versed in physical inquiries, and acquainted with the several sorts of natural bodies, would set down those simple ideas, wherein they observe the individuals of each sort constantly to agree. This would remedy a great deal of that confusion which comes from several persons applying the same name to a collection of a smaller or greater number of sensible qualities, proportionably as they have been more or less acquainted with, or accurate in examining the qualities of any sort of things which come under one denomination. But a dictionary of this sort containing, as it were, a natural history, requires too many hands, as well as too much time, cost, pains, and sagacity, ever to be hoped for; and till that be done, we must content ourselves with such definitions of the names of substances as explain the sense men use them in. And it would be well, where there is occasion, if they would afford us so much. This yet is not usually done; but men talk to one another, and dispute in words, whose meaning is not agreed between them, out of a mistake, that the significations of common words are certainly established, and the precise ideas they stand for perfectly known; and that it is a shame to be ignorant of them. Both which suppositions are false: no names of complex ideas having so settled determined significations, that they are constantly used for the same precise ideas. Nor is it a shame for a man not to have a certain knowledge of any thing, but by the necessary ways of attaining it; and

so it is no discredit not to know what precise idea any sound stands for in another man's mind, without he declare it to me by some other way than barely using that sound; there being no other way, without such a declaration, certainly to know it. Indeed the necessity of communication by language brings men to an agreement in the signification of common words, within some tolerable latitude, that may serve for ordinary conversation: and so a man cannot be supposed wholly ignorant of the ideas which are annexed to words by common use, in a language familiar to him. But common use, being but a very uncertain rule, which reduces itself at last to the ideas of particular men, proves often but a very variable standard. But though such a dictionary, as I have above mentioned, will require too much time, cost, and pains, to be hoped for in this age; yet methinks it is not unreasonable to propose, that words standing for things, which are known and distinguished by their outward shapes, should be expressed by little draughts and prints made of them. A vocabulary made after this fashion would perhaps, with more ease, and in less time, teach the true signification of many terms, especially in languages of remote countries or ages, and settle truer ideas in men's minds of several things, whereof we read the names in ancient authors, than all the large and laborious comments of learned criticks. Naturalists, that treat of plants and animals, have found the benefit of this way: and he that has had occasion to consult them, will have reason to confess, that he has a clearer idea of apium or ibex, from a little print of that herb or beast, than he could have from a long definition of the names of either of them. And so no doubt he would have of strigil and sistrum, if instead of curry-comb and cymbal, which are the English names dictionaries render them by, he could see stamped in the margin small pictures of these instruments, as they were in use

amongst the ancients. “Toga, tunica, pallium,” are words easily translated by gown, coat, and cloak: but we have thereby no more true ideas of the fashion of those habits amongst the Romans, than we have of the faces of the taylor's who made them. Such things as these, which the eye distinguishes by their shapes, would be best let into the mind by draughts made of them, and more determine the signification of such words than any other words set for them, or made use of to define them. But this only by the by.

§ 26.—5. *By constancy in their signification.*

Fifthly, if men will not be at the pains to declare the meaning of their words, and definitions of their terms are not to be had; yet this is the least that can be expected, that in all discourses, wherein one man pretends to instruct or convince another, he should use the same word constantly in the same sense: if this were done (which nobody can refuse without great disingenuity) many of the books extant might be spared; many of the controversies in dispute would be at an end; several of those great volumes, swoln with ambiguous words, now used in one sense, and by and by in another, would shrink into a very narrow compass; and many of the philosophers (to mention no other) as well as poets works, might be contained in a nutshell.

§ 27. *When the variation is to be explained.*

But after all, the provision of words is so scanty in respect of that infinite variety of thoughts, that men, wanting terms to suit their precise notions, will, notwithstanding their utmost caution, be forced often to use the same word in somewhat different senses. And though in the continuation of a discourse, or the pursuit of an argument, there can be hardly room to digress into a particular definition, as often as a man varies the signification of any term; yet the import of the discourse will, for the most part, if there

be no designed fallacy, sufficiently lead candid and intelligent readers into the true meaning of it; but where there is not sufficient to guide the reader, there it concerns the writer to explain his meaning, and show in what sense he there uses that term.

BOOK IV.

CHAP. I.

OF KNOWLEDGE IN GENERAL.

§ 1. *Our knowledge conversant about our ideas.*

SINCE the mind, in all its thoughts and reasonings, hath no other immediate object but its own ideas, which it alone does or can contemplate; it is evident, that our knowledge is only conversant about them.

§ 2. *Knowledge is the perception of the agreement or disagreement of two ideas.*

Knowledge then seems to me to be nothing but the perception of the connexion and agreement, or disagreement and repugnancy, of any of our ideas. In this alone it consists. Where this perception is, there is knowledge; and where it is not, there, though we may fancy, guess, or believe, yet we always come short of knowledge. For when we know that white is not black, what do we else but perceive that these two ideas do not agree? When we possess ourselves with the utmost security of the demonstration, that the three angles of a triangle are equal to two right ones, what do we more but perceive, that equality to

two right ones does necessarily agree to, and is inseparable from the three angles of a triangle * ?

§ 3. *This agreement fourfold.*

But to understand a little more distinctly wherein this agreement or disagreement consists, I think we may reduce it all to these four sorts :

* The placing of certainty, as Mr. Locke does, in the perception of the agreement or disagreement of our ideas, the bishop of Worcester suspects may be of dangerous consequence to that article of faith which he has endeavoured to defend ; to which Mr. Locke answers, † Since your lordship hath not, as I remember, shown, or gone about to show, how this proposition, viz. that certainty consists in the perception of the agreement or disagreement of two ideas, is opposite or inconsistent with that article of faith which your lordship has endeavoured to defend ; it is plain, it is but your lordship's fear, that it may be of dangerous consequence to it, which, as I humbly conceive, is no proof that it is any way inconsistent with that article.

Nobody, I think, can blame your lordship, or any one else, for being concerned for any article of the christian faith ; but if that concern (as it may, and as we know it has done) makes any one apprehend danger, where no danger is, are we, therefore, to give up and condemn any proposition, because any one, though of the first rank and magnitude, fears it may be of dangerous consequence to any truth of religion, without showing that it is so ? If such fears be the measures whereby to judge of truth and falsehood, the affirming that there are antipodes would be still a heresy ; and the doctrine of the motion of the earth must be rejected, as overthrowing the truth of the scripture ; for of that dangerous consequence it has been apprehended to be, by many learned and pious divines, out of their great concern for religion. And yet, notwithstanding those great apprehensions of what dangerous consequence it might be, it is now universally received by learned men, as an undoubted truth ; and writ for by some, whose belief of the scripture is not at all questioned ; and particularly, very lately, by a divine of the church of England, with great strength of reason, in his wonderfully ingenious *New Theory of the Earth*.

The reason your lordship gives of your fears, that it may be of such dangerous consequence to that article of faith which your lordship endeavours to defend, though it occur in more places than one, is only this, viz. that it is made use of by ill men to do mischief, *i. e.* to oppose that article of faith which your lordship hath endeavoured to defend. But, my lord, if it be a reason to lay by any thing as bad, because it is, or may be used to an ill purpose, I know not what will be innocent enough to be kept. Arms, which were made for our de-

† In his 2d letter to the bishop of Worcester.

1. Identity, or diversity.
2. Relation.
3. Co-existence, or necessary connexion.
4. Real existence.

§ 4.—1. *Of identity or diversity.*

First, as to the first sort of agreement or disagreement, viz. identity or diversity. It is the first act of

fence, are sometimes made use of to do mischief; and yet they are not thought of dangerous consequence for all that. Nobody lays by his sword and pistols, or thinks them of such dangerous consequences as to be neglected, or thrown away, because robbers, and the worst of men, sometimes make use of them, to take away honest men's lives or goods. And the reason is, because they were designed, and will serve to preserve them. And who knows but this may be the present case? If your lordship thinks, that placing of certainty in the perception of the agreement or disagreement of ideas be to be rejected as false, because you apprehend it may be of dangerous consequence to that article of faith: on the other side, perhaps others, with me, may think it a defence against error, and so (as being of good use) to be received and adhered to.

I would not, my lord, be hereby thought to set up my own, or any one's judgment against your lordship's. But I have said this only to show, whilst the argument lies for or against the truth of any proposition, barely in an imagination that it may be of consequence to the supporting or overthrowing of any remote truth; it will be impossible, that way, to determine of the truth or falsehood of that proposition. For imagination will be set up against imagination, and the stronger probably will be against your lordship; the strongest imaginations being usually in the weakest heads. The only way, in this case, to put it past doubt, is to show the inconsistency of the two propositions; and then it will be seen, that one overthrows the other; the true, the false one.

Your lordship says, indeed, this is a new method of certainty. I will not say so myself, for fear of deserving a second reproof from your lordship, for being too forward to assume to myself the honour of being an original. But this, I think, gives me occasion, and will excuse me from being thought impertinent, if I ask your lordship whether there be any other, or older method of certainty? and what it is? For if there be no other, nor older than this, either this was always the method of certainty, and so mine is no new one; or else the world is obliged to me for this new one, after having been so long in the want of so necessary a thing as a method of certainty. If there be an older, I am sure your lordship cannot but know it; your condemning mine as new, as well as your thorough insight into antiquity, cannot but satisfy every body that you do. And therefore to set the world right in a thing of that great concernment, and to over-

the mind, when it has any sentiments or ideas at all, to perceive its ideas ; and so far as it perceives them, to know each what it is, and thereby also to perceive their difference, and that one is not another. This is so absolutely necessary, that without it there could be no knowledge, no reasoning, no imagination, no dis-

throw mine, and thereby prevent the dangerous consequence there is in my having unreasonably started it, will not, I humbly conceive, misbecome your lordship's care of that article you have endeavoured to defend, nor the good-will you bear to truth in general. For I will be answerable for myself, that I shall ; and I think I may be for all others, that they all will give off the placing of certainty in the perception of the agreement or disagreement of ideas, if your lordship will be pleased to show, that it lies in any thing else.

But truly, not to ascribe to myself an invention of what has been as old as knowledge is in the world, I must own I am not guilty of what your lordship is pleased to call starting new methods of certainty. Knowledge, ever since there has been any in the world, has consisted in one particular action in the mind ; and so, I conceive, will continue to do to the end of it. And to start new methods of knowledge, or certainty, (for they are to me the same thing) *i. e.* to find out and propose new methods of attaining knowledge, either with more ease and quickness, or in things yet unknown, is what I think nobody could blame : but this is not that which your lordship here means, by new methods of certainty. Your lordship, I think, means by it, the placing of certainty in something, wherein either it does not consist, or else wherein it was not placed before now ; if this be to be called a new method of certainty. As to the latter of these, I shall know whether I am guilty or no, when your lordship will do me the favour to tell me, wherein it was placed before : which your lordship knows I professed myself ignorant of, when I writ my book, and so I am still. But if starting new methods of certainty, be the placing of certainty in something wherein it does not consist : whether I have done that or no, I must appeal to the experience of mankind.

There are several actions of men's minds, that they are conscious to themselves of performing, as willing, believing, knowing, &c. which they have so particular sense of, that they can distinguish them one from another ; or else they could not say, when they willed, when they believed, and when they knew any thing. But though these actions were different enough from one another, not to be confounded by those who spoke of them, yet nobody, that I had met with, had, in their writings, particularly set down wherein the act of knowing precisely consisted.

To this reflection upon the actions of my own mind the subject of my Essay concerning Human Understanding naturally led me ;

inct thoughts, at all. By this the mind clearly and infallibly perceives each idea to agree with itself, and to be what it is; and all distinct ideas to disagree, *i. e.* the one not to be the other: and this it does without pains, labour, or deduction; but at first view, by its natural power of perception and distinc-

wherein if I have done any thing new, it has been to describe to others, more particularly than had been done before, what it is their minds do when they perform that action which they call knowing; and if, upon examination, they observe I have given a true account of that action of their minds in all the parts of it, I suppose it will be in vain to dispute against what they find and feel in themselves. And if I have not told them right and exactly what they find and feel in themselves, when their minds perform the act of knowing, what I have said will be all in vain; men will not be persuaded against their senses. Knowledge is an internal perception of their minds; and if, when they reflect on it, they find it is not what I have said it is, my groundless conceit will not be hearkened to, but be exploded by every body, and die of itself: and nobody need to be at any pains to drive it out of the world. So impossible is it to find out, or start new methods of certainty, or to have them received, if any one places it in any thing, but in that wherein it really consists: much less can any one be in danger to be misled into error, by any such new, and to every one visibly senseless project. Can it be supposed, that any one could start a new method of seeing, and persuade men thereby, that they do not see what they do see? Is it to be feared that any one can cast such a mist over their eyes, that they should not know when they see, and so be led out of their way by it?

Knowledge, I find in myself, and I conceive in others, consists in the perception of the agreement or disagreement of the immediate objects of the mind in thinking, which I call ideas; but whether it does so in others or no, must be determined by their own experience, reflecting upon the action of their mind in knowing; for that I cannot alter, nor, I think, they themselves. But whether they will call those immediate objects of their mind in thinking ideas or no, is perfectly in their own choice. If they dislike that name, they may call them notions or conceptions, or how they please; it matters not, if they use them so as to avoid obscurity and confusion. If they are constantly used in the same and a known sense, every one has the liberty to please himself in his terms; there lies neither truth, nor error, nor science, in that; though those that take them for things, and not for what they are, bare arbitrary signs of our ideas, make a great deal ado often about them; as if some great matter lay in the use of this or that sound. All that I know, or can imagine of difference about them, is that those words are always best, whose signi-

tion. And though men of art have reduced this into those general rules, "what is, is;" and "it is impossible for the same thing to be and not to be;" for ready application in all cases, wherein there may be occasion to reflect on it: yet it is certain, that the first exercise of this faculty is about particular

fications are best known in the sense they are used: and so are least apt to breed confusion.

My lord, your lordship hath been pleased to find fault with my use of the new term, *ideas*, without telling me a better name for the immediate objects of the mind in thinking. Your lordship also has been pleased to find fault with my definition of knowledge, without doing me the favour to give me a better. For it is only about my definition of knowledge that all this stir concerning certainty is made. For, with me, to know and to be certain, is the same thing; what I know, that I am certain of; and what I am certain of, that I know. What reaches to knowledge, I think may be called certainty; and what comes short of certainty, I think cannot be called knowledge; as your lordship could not but observe in the 18th section of chap. 4. of my 4th book, which you have quoted.

My definition of knowledge stands thus: "knowledge seems to me to be nothing but the perception of the connexion and agreement, or disagreement and repugnancy of any of our ideas. This definition your lordship dislikes, and apprehends it may be of dangerous consequence as to that article of Christian faith which your lordship hath endeavoured to defend. For this there is a very easy remedy: it is but for your lordship to set aside this definition of knowledge by giving us a better, and this danger is over. But your lordship chooses rather to have a controversy with my book for having it in it, and to put me upon the defence of it; for which I must acknowledge myself obliged to your lordship for affording me so much of your time, and for allowing me the honour of conversing so much with one so far above me in all respects.

Your lordship says, it may be of dangerous consequence to that article of Christian faith which you have endeavoured to defend. Though the laws of disputing allow bare denial as a sufficient answer to sayings, without any offer of a proof: yet, my lord, to show how willing I am to give your lordship all satisfaction, in what you apprehend may be of dangerous consequence in my book, as to that article, I shall not stand still sullenly, and put your lordship upon the difficulty of showing wherein that danger lies; but shall on the other side, endeavour to show your lordship that that definition of mine, whether true or false, right or wrong, can be of no dangerous consequence to that article of faith. The reason which I shall offer for it, is this; because it can be of no consequence to it at all.

ideas. A man infallibly knows, as soon as ever he has them in his mind, that the ideas he calls white and round, are the very ideas they are, and that they are not other ideas which he calls red or square. Nor can any maxim or proposition in the world make him know it clearer or surer than he did before, and with-

That which your lordship is afraid it may be dangerous to, is an article of faith: that which your lordship labours and is concerned for, is the certainty of faith. Now, my lord, I humbly conceive the certainty of faith, if your lordship thinks fit to call it so, has nothing to do with the certainty of knowledge. As to talk of the certainty of faith, seems all one to me, as to talk of the knowledge of believing, a way of speaking not easy to me to understand.

Place knowledge in what you will; start what new methods of certainty you please, that are apt to leave men's minds more doubtful than before; place certainty on such ground as will leave little or no knowledge in the world: (for these are the arguments your lordship uses against my definition of knowledge) this shakes not at all, nor in the least concerns the assurance of faith; that is quite distinct from it, neither stands nor falls with knowledge.

Faith stands by itself, and upon grounds of its own; nor can be removed from them, and placed on those of knowledge. Their grounds are so far from being the same, or having any thing common, that when it is brought to certainty, faith is destroyed; it is knowledge then, and faith no longer.

With what assurance soever of believing I assent to any article of faith, so that I stedfastly venture my all upon it, it is still but believing. Bring it to certainty, and it ceases to be faith. I believe that Jesus Christ was crucified, dead, and buried, rose again the third day from the dead, and ascended into heaven: let now such methods of knowledge or certainty be started, as leave men's minds more doubtful than before; let the grounds of knowledge be resolved into what any one pleases, it touches not my faith; the foundation of that stands as sure as before, and cannot be at all shaken by it; and one may as well say, that any thing that weakens the sight, or casts a mist before the eyes, endangers the hearing; as that any thing which alters the nature of knowledge (if that could be done) should be of dangerous consequence to an article of faith.

Whether then I am or am not mistaken, in the placing certainty in the perception of the agreement or disagreement of ideas; whether this account of knowledge be true or false, enlarges or straitens the bounds of it more than it should; faith still stands upon its own basis, which is not at all altered by it; and every article of that has just the same unmoved foundation, and the very same credibility, that it had before. So that, my lord, whatever I have said about

out any such general rule. This then is the first agreement or disagreement, which the mind perceives in its ideas; which it always perceives at first sight: and if there ever happen any doubt about it, it will always be found to be about the names, and not the ideas themselves, whose identity and diversity will always be perceived, as soon and clearly as the ideas themselves are; nor can it possibly be otherwise.

§ 5.—2. *Relative.*

Secondly, the next sort of agreement or disagreement, the mind perceives in any of its ideas, may, I think, be called relative, and is nothing but the perception of the relation between any two ideas, of what kind soever, whether substances, modes, or any other. For since all distinct ideas must eternally be known not to be the same, and so be universally and constantly denied one of another, there could be no room for any positive knowledge at all, if we could not perceive any relation between our ideas, and find out the agreement or disagreement they have one with another, in several ways the mind takes of comparing them.

§ 6.—3. *Of co-existence.*

Thirdly, the third sort of agreement, or disagreement, to be found in our ideas, which the perception of the mind is employed about, is co-existence, or non co-existence in the same subject; and this belongs particularly to substances. Thus when we pronounce concerning gold that it is fixed, our knowledge of this truth amounts to no more but this, that fixedness, or a power to remain in the fire uncon-

certainty, and how much soever I may be out in it, if I am mistaken, your lordship has no reason to apprehend any danger to any article of faith from thence; every one of them stands upon the same bottom it did before, out of the reach of what belongs to knowledge and certainty. And thus much of my way of certainty by ideas; which, I hope, will satisfy your lordship how far it is from being dangerous to any article of the christian faith whatsoever.

sumed, is an idea that always accompanies, and is joined with that particular sort of yellowness, weight, fusibility, malleableness, and solubility in aq. regia, which make our complex idea, signified by the word gold.

§ 7.—4. *Of real existence.*

Fourthly, the fourth and last sort is that of actual and real existence agreeing to any idea. Within these four sorts of agreement or disagreement is, I suppose, contained all the knowledge we have, or are capable of: for all the inquiries we can make concerning any of our ideas, all that we know or can affirm concerning any of them, is, that it is, or is not, the same with some other; that it does or does not, always co-exist with some other idea in the same subject; that it has this or that relation with some other idea; or that it has a real existence without the mind. Thus blue is not yellow; is of identity: two triangles upon equal bases between two parallels are equal; is of relation: iron is susceptible of magnetical impressions; is of co-existence: God is; is of real existence. Though identity and co-existence are truly nothing but relations, yet they are such peculiar ways of agreement or disagreement of our ideas, that they deserve well to be considered as distinct heads, and not under relation in general; since they are so different grounds of affirmation and negation, as will easily appear to any one, who will but reflect on what is said in several places of this essay. I should not proceed to examine the several degrees of our knowledge, but that it is necessary first to consider the different acceptations of the word knowledge.

§ 8. *Knowledge actual or habitual.*

There are several ways wherein the mind is possessed of truth, each of which is called knowledge.

1. There is actual knowledge, which is the present view the mind has of the agreement or disagree-

ment of any of its ideas, or of the relation they have one to another.

2. A man is said to know any proposition, which having been once laid before his thoughts, he evidently perceived the agreement or disagreement of the ideas whereof it consists; and so lodged it in his memory, that whenever that proposition comes again to be reflected on, he, without doubt or hesitation, embraces the right side, assents to, and is certain of the truth of it. This, I think, one may call habitual knowledge: and thus a man may be said to know all those truths which are lodged in his memory, by a foregoing, clear, and full perception, whereof the mind is assured past doubt, as often as it has occasion to reflect on them. For our finite understandings being able to think clearly and distinctly but on one thing at once, if men had no knowledge of any more than what they actually thought on, they would all be very ignorant; and he that knew most, would know but one truth, that being all he was able to think on at one time.

§ 9. *Habitual knowledge twofold.*

Of habitual knowledge, there are also, vulgarly speaking, two degrees.

First, the one is of such truths laid up in the memory, as whenever they occur to the mind, it actually perceives the relation is between those ideas. And this is in all those truths, whereof we have an intuitive knowledge; where the ideas themselves, by an immediate view, discover their agreement or disagreement one with another.

Secondly, the other is of such truths whereof the mind having been convinced, it retains the memory of the conviction, without the proofs. Thus a man that remembers certainly that he once perceived the demonstration, that the three angles of a triangle are equal to two right ones, is certain that he knows it,

because he cannot doubt the truth of it. In his adherence to a truth, where the demonstration by which it was at first known is forgot, though a man may be thought rather to believe his memory than really to know, and this way of entertaining a truth seemed formerly to me like something between opinion and knowledge; a sort of assurance which exceeds bare belief, for that relies on the testimony of another: yet upon a due examination I find it comes not short of perfect certainty, and is in effect true knowledge. That which is apt to mislead our first thoughts into a mistake in this matter, is, that the agreement or disagreement of the ideas in this case is not perceived, as it was at first, by an actual view of all the intermediate ideas, whereby the agreement or disagreement of those in the proposition was at first perceived; but by other intermediate ideas, that show the agreement or disagreement of the ideas contained in the proposition whose certainty we remember. For example, in this proposition, that the three angles of a triangle are equal to two right ones, one who has seen and clearly perceived the demonstration of this truth, knows it to be true, when that demonstration is gone out of his mind; so that at present it is not actually in view, and possibly cannot be recollected: but he knows it in a different way from what he did before. The agreement of the two ideas joined in that proposition is perceived, but it is by the intervention of other ideas than those which at first produced that perception. He remembers, *i. e.* he knows (for the remembrance is but the reviving of some past knowledge) that he was once certain of the truth of this proposition, that the three angles of a triangle are equal to two right ones. The immutability of the same relations between the same immutable things, is now the idea that shows him, that if the three angles of a triangle were once equal to two right ones, they

will always be equal to two right ones. And hence he comes to be certain, that what was once true in the case, is always true; what ideas once agreed, will always agree; and consequently what he once knew to be true, he will always know to be true; as long as he can remember that he once knew it. Upon this ground it is, that particular demonstrations in mathematics afford general knowledge. If then the perception that the same ideas will eternally have the same habitudes and relations be not a sufficient ground of knowledge, there could be no knowledge of general propositions in mathematics; for no mathematical demonstration would be any other than particular: and when a man had demonstrated any proposition concerning one triangle or circle, his knowledge would not reach beyond that particular diagram. If he would extend it further, he must renew his demonstration in another instance, before he could know it to be true in another like triangle, and so on: by which means one could never come to the knowledge of any general propositions. Nobody, I think, can deny that Mr. Newton certainly knows any proposition, that he now at any time reads in his book, to be true; though he has not in actual view that admirable chain of intermediate ideas, whereby he at first discovered it to be true. Such a memory as that, able to retain such a train of particulars, may be well thought beyond the reach of human faculties; when the very discovery, perception, and laying together that wonderful connexion of ideas, is found to surpass most readers' comprehension. But yet it is evident, the author himself knows the proposition to be true, remembering he once saw the connexion of those ideas, as certainly as he knows such a man wounded another, remembering that he saw him run him through. But because the memory is not always so clear as actual perception, and does in all men more or less decay

in length of time, this amongst other differences is one, which shows that demonstrative knowledge is much more imperfect than intuitive, as we shall see in the following chapter.

CHAP. II.

OF THE DEGREES OF OUR KNOWLEDGE.

§ 1. *Intuitive.*

ALL our knowledge consisting, as I have said, in the view the mind has of its own ideas, which is the utmost light and greatest certainty we, with our faculties, and in our way of knowledge, are capable of; it may not be amiss to consider a little the degrees of its evidence. The different clearness of our knowledge seems to me to lie in the different way of perception the mind has of the agreement or disagreement of any of its ideas. For if we reflect on our own ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other: and this, I think, we may call intuitive knowledge. For in this the mind is at no pains of proving or examining, but perceives the truth, as the eye doth light, only by being directed towards it. Thus the mind perceives, that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two. Such kind of truths the mind perceives at the first sight of the ideas together, by bare intuition, without the intervention of any other idea; and this kind of knowledge is the clearest and most certain, that hu-

man frailty is capable of. This part of knowledge is irresistible, and like bright sun-shine forces itself immediately to be perceived, as soon as ever the mind turns its view that way; and leaves no room for hesitation, doubt, or examination, but the mind is presently filled with the clear light of it. It is on this intuition that depends all the certainty and evidence of all our knowledge; which certainly every one finds to be so great, that he cannot imagine, and therefore not require a greater: for a man cannot conceive himself capable of a greater certainty, than to know that any idea in his mind is such as he perceives it to be; and that two ideas wherein he perceives a difference, are different and not precisely the same. He that demands a greater certainty than this, demands he knows not what, and shows only that he has a mind to be a sceptic, without being able to be so. Certainty depends so wholly on this intuition, that in the next degree of knowledge, which I call demonstrative, this intuition is necessary in all the connexions of the intermediate ideas, without which we cannot attain knowledge and certainty.

§ 2. *Demonstrative.*

The next degree of knowledge is, where the mind perceives the agreement or disagreement of any ideas, but not immediately. Though wherever the mind perceives the agreement or disagreement of any of its ideas, there be certain knowledge; yet it does not always happen, that the mind sees that agreement or disagreement which there is between them, even where it is discoverable: and in that case remains in ignorance, and at most gets no farther than a probable conjecture. The reason why the mind cannot always perceive presently the agreement or disagreement of two ideas, is, because those ideas, concerning whose agreement or disagreement the inquiry is made, cannot by the mind be so put together as to show it. In this case then, when the mind cannot

so bring its ideas together, as by their immediate comparison, and as it were juxta-position or application one to another, to perceive their agreement or disagreement, it is fain, by the intervention of other ideas (one or more, as it happens) to discover the agreement or disagreement which it searches; and this is that which we call reasoning. Thus the mind being willing to know the agreement or disagreement in bigness, between the three angles of a triangle and two right ones, cannot by an immediate view and comparing them do it: because the three angles of a triangle cannot be brought at once, and be compared with any one or two angles; and so of this the mind has no immediate, no intuitive knowledge. In this case the mind is fain to find out some other angles, to which the three angles of a triangle have an equality; and, finding those equal to two right ones, comes to know their equality to two right ones.

§ 3. *Depends on proofs.*

Those intervening ideas which serve to show the agreement of any two others, are called proofs; and where the agreement and disagreement is by this means plainly and clearly perceived, it is called demonstration, it being shown to the understanding, and the mind made to see that it is so. A quickness in the mind to find out these intermediate ideas (that shall discover the agreement or disagreement of any other) and to apply them right, is, I suppose, that which is called sagacity.

§ 4. *But not so easy.*

This knowledge by intervening proofs, though it be certain, yet the evidence of it is not altogether so clear and bright, nor the assent so ready, as in intuitive knowledge. For though, in demonstration, the mind does at last perceive the agreement or disagreement of the ideas it considers; yet it is not without pains and attention: there must be more than one transient view to find it. A steady application and

pursuit are required to this discovery: and there must be a progression by steps and degrees, before the mind can in this way arrive at certainty, and come to perceive the agreement or repugnancy between two ideas that need proofs and the use of reason to show it.

§ 5. *Not without precedent doubt.*

Another difference between intuitive and demonstrative knowledge is, that though in the latter all doubt be removed, when by the intervention of the intermediate ideas the agreement or disagreement is perceived; yet before the demonstration there was a doubt, which in intuitive knowledge cannot happen to the mind, that has its faculty of perception left to a degree capable of distinct ideas, no more than it can be a doubt to the eye (that can distinctly see white and black) whether this ink and this paper be all of a colour. If there be sight in the eyes, it will at first glimpse, without hesitation, perceive the words printed on this paper different from the colour of the paper: and so if the mind have the faculty of distinct perceptions, it will perceive the agreement or disagreement of those ideas that produce intuitive knowledge. If the eyes have lost the faculty of seeing, or the mind of perceiving, we in vain inquire after the quickness of sight in one, or clearness of perception in the other.

§ 6. *Not so clear.*

It is true the perception produced by demonstration is also very clear, yet it is often with a great abatement of that evident lustre and full assurance, that always accompany that which I call intuitive; like a face reflected by several mirrors one to another, where as long as it retains the similitude and agreement with the object, it produces a knowledge; but it is still in every successive reflection with a lessening of that perfect clearness and distinctness, which is in the first, till at last, after many removes, it has a

great mixture of dimness, and is not at first sight so knowable, especially to weak eyes. Thus it is with knowledge made out by a long train of proof.

§ 7. *Each step must have intuitive evidence.*

Now, in every step reason makes in demonstrative knowledge, there is an intuitive knowledge of that agreement or disagreement it seeks with the next intermediate idea, which it uses as a proof; for if it were not so, that yet would need a proof; since without the perception of such agreement or disagreement, there is no knowledge produced. If it be perceived by itself, it is intuitive knowledge: if it cannot be perceived by itself, there is need of some intervening idea, as a common measure to show their agreement or disagreement. By which it is plain, that every step in reasoning that produces knowledge has intuitive certainty; which when the mind perceives, there is no more required, but to remember it to make the agreement or disagreement of the ideas, concerning which we inquire, visible and certain. So that to make any thing a demonstration, it is necessary to perceive the immediate agreement of the intervening ideas, whereby the agreement or disagreement of the two ideas under examination (whereof the one is always the first, and the other the last in the account) is found. This intuitive perception of the agreement or disagreement of the intermediate ideas, in each step and progression of the demonstration, must also be carried exactly in the mind, and a man must be sure that no part is left out: which because in long deductions, and the use of many proofs, the memory does not always so readily and exactly retain; therefore it comes to pass, that this is more imperfect than intuitive knowledge, and men embrace often falsehood for demonstrations.

§ 8. *Hence the mistake "ex præcognitis & præconcessis."*

The necessity of this intuitive knowledge, in each step of scientific or demonstrative reasoning, gave

occasion, I imagine, to that mistaken axiom, that all reasoning was “*ex præcognitis & præconcessis* ;” which how far it is mistaken, I shall have occasion to show more at large, when I come to consider propositions, and particularly those propositions which are called maxims ; and to show that it is by a mistake, that they are supposed to be the foundations of all our knowledge and reasonings.

§ 9. *Demonstration not limited to quantity.*

It has been generally taken for granted, that mathematics alone are capable of demonstrative certainty : but to have such an agreement or disagreement, as may intuitively be perceived, being, as I imagine, not the privilege of the ideas of number, extension, and figure alone, it may possibly be the want of due method and application in us, and not of sufficient evidence in things, that demonstration has been thought to have so little to do in other parts of knowledge, and been scarce so much as aimed at by any but mathematicians. For whatever ideas we have, wherein the mind can perceive the immediate agreement or disagreement that is between them, there the mind is capable of intuitive knowledge ; and where it can perceive the agreement or disagreement of any two ideas, by an intuitive perception of the agreement or disagreement they have with any intermediate ideas, there the mind is capable of demonstration, which is not limited to ideas of extension, figure, number, and their modes.

§ 10. *Why it has been so thought.*

The reason why it has been generally sought for, and supposed to be only in those, I imagine has been not only the general usefulness of those sciences ; but because, in comparing their equality or excess, the modes of numbers have every the least difference very clear and perceivable ; and though in extension, every the least excess is not so perceptible, yet the mind has found out ways to examine and discover

demonstratively the just equality of two angles, or extensions, or figures : and both these, *i. e.* numbers and figures, can be set down by visible and lasting marks, wherein the ideas under consideration are perfectly determined ; which for the most part they are not, where they are marked only by names and words.

11.

But in other simple ideas, whose modes and differences are made and counted by degrees, and not quantity, we have not so nice and accurate a distinction of their differences, as to perceive and find ways to measure their just equality, or the least differences. For those other simple ideas, being appearances of sensations, produced in us by the size, figure, number, and motion of minute corpuscles singly insensible ; their different degrees also depend upon the variation of some, or of all those causes : which since it cannot be observed by us in particles of matter, whereof each is too subtle to be perceived, it is impossible for us to have any exact measures of the different degrees of these simple ideas. For supposing the sensation or idea we name whiteness be produced in us by a certain number of globules, which, having a verticity about their own centres, strike upon the retina of the eye, with a certain degree of rotation, as well as progressive swiftness ; it will hence easily follow, that the more the superficial parts of any body are so ordered, as to reflect the greater number of globules of light, and to give them the proper rotation, which is fit to produce this sensation of white in us, the more white will that body appear, that from an equal space sends to the retina the greater number of such corpuscles, with that peculiar sort of motion. I do not say, that the nature of light consists in very small round globules, nor of whiteness in such a texture of parts, as gives a certain rotation to these globules, when it reflects them ; for I am not

now treating physically of light or colours. But this, I think, I may say, that I cannot (and I would be glad any one would make intelligible that he did) conceive how bodies without us can any ways affect our senses, but by the immediate contact of the sensible bodies themselves, as in tasting and feeling, or the impulse of some insensible particles coming from them, as in seeing, hearing, and smelling; by the different impulse of which parts, caused by their different size, figure, and motion, the variety of sensations is produced in us.

§ 12.

Whether then they be globules, or no; or whether they have a verticity about their own centres that produces the idea of whiteness in us: this is certain, that the more particles of light are reflected from a body, fitted to give them that peculiar motion, which produces the sensation of whiteness in us; and possibly too, the quicker that peculiar motion is; the whiter does the body appear, from which the greater number are reflected, as is evident in the same piece of paper put in the sun-beams, in the shade, and in a dark hole; in each of which it will produce in us the idea of whiteness in far different degrees.

§ 13.

Not knowing therefore what number of particles, nor what motion of them is fit to produce any precise degree of whiteness, we cannot demonstrate the certain equality of any two degrees of whiteness, because we have no certain standard to measure them by, nor means to distinguish every the least real difference, the only help we have being from our senses, which in this point fail us. But where the difference is so great, as to produce in the mind clearly distinct ideas, whose differences can be perfectly retained, there these ideas or colours, as we see in different kinds, as blue and red, are as capable of demonstra-

tion, as ideas of number and extension. What I have here said of whiteness and colours, I think, holds true in all secondary qualities, and their modes.

§ 14. *Sensitive knowledge of particular existence.*

These two, viz. intuition and demonstration, are the degrees of our knowledge; whatever comes short of one of these, with what assurance soever embraced, is but faith, or opinion, but not knowledge, at least in all general truths. There is, indeed, another perception of the mind, employed about the particular existence of finite beings without us; which going beyond bare probability, and yet not reaching perfectly to either of the foregoing degrees of certainty, passes under the name of knowledge. There can be nothing more certain, than that the idea we receive from an external object is in our minds; this is intuitive knowledge. But whether there be any thing more than barely that idea in our minds, whether we can thence certainly infer the existence of any thing without us, which corresponds to that idea, is that, whereof some men think there may be a question made; because men may have such ideas in their minds, when no such thing exists, no such object affects their senses. But yet here, I think, we are provided with an evidence, that puts us past doubting: for I ask any one, whether he be not invincibly conscious to himself of a different perception, when he looks on the sun by day, and thinks on it by night; when he actually tastes wormwood, or smells a rose, or only thinks on that savour or odour? We as plainly find the difference there is between an idea revived in our minds by our own memory, and actually coming into our minds by our senses, as we do between any two distinct ideas. If any one say, a dream may do the same thing, and all these ideas may be produced in us without any external objects; he may please to dream that I make him this answer: 1. That it is no great matter, whether I remove this

scruple or no: where all is but dream, reasoning and arguments are of no use, truth and knowledge nothing.

2. That I believe he will allow a very manifest difference between dreaming of being in the fire, and being actually in it. But yet if he be resolved to appear so sceptical, as to maintain, that what I call being actually in the fire is nothing but a dream; and we cannot thereby certainly know, that any such thing as fire actually exists without us: I answer, that we certainly finding that pleasure or pain follows upon the application of certain objects to us, whose existence we perceive, or dream that we perceive by our senses; this certainty is as great as our happiness or misery, beyond which we have no concernment to know or to be. So that, I think, we may add to the two former sorts of knowledge this also of the existence of particular external objects, by that perception and consciousness we have of the actual entrance of ideas from them, and allow these three degrees of knowledge, viz. intuitive, demonstrative, and sensitive: in each of which there are different degrees and ways of evidence and certainty.

§ 15. *Knowledge not always clear, where the ideas are*
so.

But since our knowledge is founded on, and employed about our ideas only, will it not follow from thence, that it is conformable to our ideas; and that where our ideas are clear and distinct, or obscure and confused, our knowledge will be so too? To which I answer, no: for our knowledge consisting in the perception of the agreement or disagreement of any two ideas, its clearness or obscurity consists in the clearness or obscurity of that perception, and not in the clearness or obscurity of the ideas themselves; v. g. a man that has as clear ideas of the angles of a triangle, and of equality to two right ones, as any mathematician in the world, may yet have but a very obscure perception of their agreement, and so have

but a very obscure knowledge of it. But ideas, which by reason of their obscurity or otherwise, are confused, cannot produce any clear or distinct knowledge; because as far as any ideas are confused, so far the mind cannot perceive clearly, whether they agree or disagree. Or to express the same thing in a way less apt to be misunderstood; he that hath not determined ideas to the words he uses, cannot make propositions of them, of whose truth he can be certain.

CHAP. III.

OF THE EXTENT OF HUMAN KNOWLEDGE.

§ 1.

KNOWLEDGE, as has been said, lying in the perception of the agreement or disagreement of any of our ideas, it follows from hence, that,

1. *No farther than we have ideas.*

First, we can have knowledge no farther than we have ideas.

§ 2.—2. *No farther than we can perceive their agreement or disagreement.*

Secondly, that we have no knowledge farther than we can have perception of their agreement or disagreement. Which perception being, 1. Either by intuition, or the immediate comparing any two ideas; or,

2. By reason, examining the agreement or disagreement of two ideas, by the intervention of some others; or, 3. By sensation, perceiving the existence of particular things: hence it also follows,

§ 3.—3. *Intuitive knowledge extends itself not to all the relations of all our ideas.*

Thirdly, that we cannot have an intuitive knowledge, that shall extend itself to all our ideas, and all that we would know about them; because we cannot examine and perceive all the relations they have one to another by juxta-position, or an immediate comparison one with another. Thus having the ideas of an obtuse and an acute angled triangle, both drawn from equal bases, and between parallels, I can, by intuitive knowledge, perceive the one not to be the other, but cannot that way know whether they be equal or no; because their agreement or disagreement in equality can never be perceived by an immediate comparing them: the difference of figure makes their parts incapable of an exact immediate application; and therefore there is need of some intervening qualities to measure them by, which is demonstration, or rational knowledge.

§ 4.—4. *Nor demonstrative knowledge.*

Fourthly, it follows also, from what is above observed, that our rational knowledge cannot reach to the whole extent of our ideas: because between two different ideas we would examine, we cannot always find such mediums, as we can connect one to another with an intuitive knowledge, in all the parts of the deduction; and wherever that fails, we come short of knowledge and demonstration.

§ 5.—5. *Sensitive knowledge narrower than either.*

Fifthly, sensitive knowledge reaching no farther than the existence of things actually present to our senses, is yet much narrower than either of the former.

§ 6.—6. *Our knowledge therefore narrower than our ideas.*

From all which it is evident, that the extent of our knowledge comes not only short of the reality of things, but even of the extent of our own ideas.

Though our knowledge be limited to our ideas, and cannot exceed them either in extent or perfection; and though these be very narrow bounds, in respect of the extent of all being, and far short of what we may justly imagine to be in some even created understandings, not tied down to the dull and narrow information which is to be received from some few, and not very acute ways of perception, such as are our senses; yet it would be well with us if our knowledge were but as large as our ideas, and there were not many doubts and inquiries concerning the ideas we have, whereof we are not, nor I believe ever shall be in this world resolved. Nevertheless I do not question but that human knowledge, under the present circumstances of our beings and constitutions, may be carried much farther than it has hitherto been, if men would sincerely, and with freedom of mind, employ all that industry and labour of thought, in improving the means of discovering truth, which they do for the colouring or support of falsehood, to maintain a system, interest or party, they are once engaged in. But yet after all, I think I may, without injury to human perfection, be confident, that our knowledge would never reach to all we might desire to know concerning those ideas we have: nor be able to surmount all the difficulties, and resolve all the questions that might arise concerning any of them. We have the ideas of a square, a circle, and equality; and yet, perhaps, shall never be able to find a circle equal to a square, and certainly know that it is so. We have the ideas of matter and thinking*, but possibly shall never be able to know,

* Against that assertion of Mr. Locke, that possibly we shall never be able to know whether any mere material being thinks or no, &c. the bishop of Worcester argues thus: If this be true, then, for all that we can know by our ideas of matter and thinking, matter may have a power of thinking: and, if this hold, then it is impossible to prove a spiritual substance in us from the idea of thinking: for how

can we be assured by our ideas, that God hath not given such a power of thinking to matter so disposed as our bodies are? especially since it is said†, “That, in respect of our notions, it is not much more remote from our comprehension to conceive that God can, if he pleases, superadd to our idea of matter a faculty of thinking, than that he should superadd to it another substance, with a faculty of thinking.” Whoever asserts this can never prove a spiritual substance in us from a faculty of thinking, because he cannot know, from the idea of matter and thinking, that matter so disposed cannot think: and he cannot be certain, that God hath not framed the matter of our bodies so as to be capable of it.

To which Mr. Locke‡ answers thus: Here your Lordship argues, that upon my principles it cannot be proved that there is a spiritual substance in us. To which, give me leave, with submission, to say, that I think it may be proved from my principles, and I think I have done it; and the proof in my book stands thus: First, we experiment in ourselves thinking. The idea of this action or mode of thinking is inconsistent with the idea of self-subsistence, and therefore has a necessary connexion with a support or subject of inhesion: the idea of that support is what we call substance; and so from thinking experimented in us, we have a proof of a thinking substance in us, which in my sense is a spirit. Against this your lordship will argue, that, by what I have said of the possibility that God may, if he pleases, superadd to matter a faculty of thinking, it can never be proved that there is a spiritual substance in us, because, upon that supposition, it is possible it may be a material substance that thinks in us. I grant it; but add, that the general idea of substance being the same every where, the modification of thinking, or the power of thinking, joined to it, makes it a spirit, without considering what other modifications it has, as, whether it has the modification of solidity or no. As, on the other side, substance, that has the modification of solidity, is matter, whether it has the modification of thinking, or no. And therefore, if your lordship means by a spiritual, an immaterial substance, I grant I have not proved, nor upon my principles can it be proved, (your lordship meaning, as I think you do, demonstratively proved) that there is an immaterial substance in us that thinks. Though, I presume, from what I have said about this supposition of a system of matter, thinking || (which there demonstrates that God is immaterial) will prove it in the highest degree probable, that the thinking substance in us is immaterial. But your lordship thinks not probability enough, and by charging the want of demonstration upon my principle, that the thinking thing in us is immaterial, your lordship seems to conclude it demonstrable from principles of philosophy. The demonstration I should with joy receive from your Lordship, or any one. For though all the great ends of morality and religion are well enough secured without it, as I have shown§, yet it would be a great advance of our knowledge in nature and philosophy.

† Essay of Human Understanding, B. 4. C. 3. § 6.

‡ In his first letter to the bishop of Worcester.

|| B. 4. C. 10. § 16.

§ B. 4. C. 3. § 6.

To what I have said in my book, to show that all the great ends of religion and morality are secured barely by the immortality of the soul, without a necessary supposition that the soul is immaterial, I crave leave to add, that immortality may and shall be annexed to that, which in its own nature is neither immaterial nor immortal, as the apostle expressly declares in these words, * For this corruptible must put on incorruption, and this mortal must put on immortality.

Perhaps my using the word spirit for a thinking substance, without excluding materiality out of it, will be thought too great a liberty and such as deserves censure, because I leave immateriality out of the idea I make it a sign of. I readily own, that words should be sparingly ventured on in a sense wholly new; and nothing but absolute necessity can excuse the boldness of using any term in a sense whereof we can produce no example. But, in the present case, I think, I have great authorities to justify me. The soul, is agreed on all hands, to be that in us which thinks. And he that will look into the first book of Cicero's Tusculan questions, and into the sixth book of Virgil's Æneid, will find, that these two great men, who of all the Romans best understood philosophy, thought, or at least did not deny the soul to be a subtle matter, which might come under the name of aura, or ignis, or æther, and this soul they both of them called spiritus: in the notion of which, it is plain, they included only thought and active motion, without the total exclusion of matter. Whether they thought right in this, I do not say; that is not the question; but whether they spoke properly, when they called an active, thinking, subtle substance, out of which they excluded only gross and palpable matter, spiritus, spirit. I think that nobody will deny, that if any among the Romans can be allowed to speak properly, Tully and Virgil are the two who may most securely be depended on for it; and one of them speaking of the soul, says, Dum spiritus hos reget artus; and the other, Vita continetur corpore et spiritu. Where it is plain by corpus, he means (as generally every where) only gross matter that may be felt and handled, as appears by these words, Si cor, aut sanguis, aut cerebrum est animus; certe, quoniam est corpus interibit cum reliquo corpore; si anima est, forte dissipabitur; si ignis, extinguetur, Tusc. Quæst, l. 1. c. 11. Here Cicero opposes corpus to ignis and anima, i. e. aura, or breath. And the foundation of that his distinction of the soul, from that which he calls corpus, or body, he gives a little lower in these words, Tanta ejus tenuitas ut fugiat aciem, ib. c. 22. Nor was it the heathen world alone that had this notion of spirit; the most enlightened of all the ancient people of God, Solomon himself, speaks after the same manner, † that which befalleth the sons of men, befalleth beasts, even one thing befalleth them; as the one dieth, so dieth the other, yea, they have all one spirit. So I translate the Hebrew word רוח here, for so I find it translated the very next verse but one; ‡ Who knoweth the spirit of man that goeth upward, and the spirit of the beast that goeth down to the earth? In which places it is plain, that Solomon applies the

* 1 Cor. xv. 53.

† Eccl. iii. 19.

‡ Eccl. iii. 21.

word πνεῦμα, and our translators of him the word spirit, to a substance, out of which materiality was not wholly excluded, unless the spirit of a beast that goeth downwards to the earth be immaterial. Nor did the way of speaking in our Saviour's time vary from this: St. Luke tells us*, that when our Saviour, after his resurrection, stood in the midst of them, they were affrighted, and supposed that they had seen πνεῦμα, the Greek word which always answers spirit in English; and so the translators of the Bible render it here, they supposed that they had seen a spirit. But our Saviour says to them, behold my hands and my feet, that it is I myself; handle me and see; for a spirit hath not flesh and bones, as you see me have. Which words of our Saviour put the same distinction between body and spirit, that Cicero did in the place above cited, viz. That the one was a gross compages that could be felt and handled; and the other such as Virgil describes the ghost or soul of Anchises.

Ter conatus ibi collo dare brachia circum,
Ter frustra compressa manus effugit imago,
Par levibus ventis volucrique simillima somno†.

I would not be thought hereby to say, that spirit never does signify a purely immaterial substance. In that sense the scripture, I take it, speaks, when it says God is a spirit; and in that sense I have used it; and in that sense I have proved from my principles that there is a spiritual substance; and am certain that there is a spiritual immaterial substance: which is, I humbly conceive, a direct answer to your lordship's question in the beginning of this argument, viz. How we come to be certain that there are spiritual substances, supposing this principle to be true, that the simple ideas by sensation and reflection are the sole matter and foundation of all our reasoning? But this hinders not, but that if God, that infinite, omnipotent, and perfectly immaterial Spirit, should please to give to a system of very subtile matter, sense, and motion, it might with propriety of speech be called spirit, though materiality were not excluded out of its complex idea. Your lordship proceeds, It is said indeed elsewhere‡, that it is repugnant to the idea of senseless matter, that it should put into itself sense, perception, and knowledge. But this doth not reach the present case: which is not what matter can do of itself, but what matter prepared by an omnipotent hand can do. And what certainty can we have that he hath not done it? We can have none from the ideas, for those are given up in this case, and consequently we can have no certainty, upon these principles, whether we have any spiritual substance within us or not.

Your lordship in this paragraph proves, that, from what I say, we can have no certainty whether we have any spiritual substance in us or not. If by spiritual substance your lordship means an immaterial substance in us, as you speak, I grant what your lordship says is true, that it cannot upon these principles be demonstrated. But I must crave leave to say at the same time, that upon these principles it can be proved to the highest degree of probability. If by spiritual substance your lordship means a thinking substance, I must dissent

* Ch. xxiv. 37.

† Lib. VI.

‡ B. 4. C. 10. § 5.

from your lordship, and say, that we can have a certainty, upon my principles, that there is a spiritual substance in us. In short, my lord, upon my principles, *i. e.* from the idea of thinking, we can have a certainty that there is a thinking substance in us; from hence we have a certainty that there is an eternal thinking substance. This thinking substance, which has been from eternity, I have proved to be immaterial. This eternal, immaterial, thinking substance, has put into us a thinking substance, which, whether it be a material or immaterial substance, cannot be infallibly demonstrated from our ideas; though from them it may be proved, that it is to the highest degree probable that it is immaterial.

Again, the bishop of Worcester undertakes to prove from Mr. Locke's principles, that we may be certain, "That the first eternal thinking Being, or omnipotent Spirit cannot, if he would, give to certain systems of created sensible matter, put together as he sees fit, some degrees of sense, perception, and thought."

To which Mr. Locke has made the following answer in his third letter.

Your first argument I take to be this; that according to me, the knowledge we have being by our ideas, and our idea of matter in general being a solid substance, and our idea of body a solid extended figured substance; if I admit matter to be capable of thinking, I confound the idea of matter with the idea of a spirit: to which I answer, No; no more than I confound the idea of matter with the idea of an horse, when I say that matter in general is a solid extended substance; and that an horse is a material animal, or an extended solid substance with sense and spontaneous motion.

The idea of matter is an extended solid substance: wherever there is such a substance, there is matter, and the essence of matter, whatever other qualities, not contained in that essence, it shall please God to superadd to it. For example, God creates an extended solid substance, without the superadding any thing else to it, and so we may consider it at rest: to some parts of it he superadds motion, but it has still the essence of matter: other parts of it he frames into plants, with all the excellencies of vegetation, life, and beauty, which is to be found in a rose or peach tree, &c. above the essence of matter, in general, but it is still but matter: to other parts he adds sense and spontaneous motion, and those other properties that are to be found in an elephant. Hitherto it is not doubted but the power of God may go, and that the properties of a rose, a peach or an elephant, superadded to matter, change not the properties of matter: but matter is in these things matter still. But if one venture to go one step farther and say, God may give to matter thought, reason, and volition, as well as sense and spontaneous motion, there are men ready presently to limit the power of the omnipotent Creator, and tell us he cannot do it; because it destroys the essence, or changes the essential properties of matter. To make good which assertion, they have no more to say, but that thought and reason are not included in the essence of matter. I grant it; but whatever excellency, not contained in its essence, be superadded to matter, it does not destroy the essence of matter, if it leaves it an extended solid substance. Where-

ever that is, there is the essence of matter ; and if every thing of greater perfection, superadded to such a substance, destroys the essence of matter, what will become of the essence of matter in a plant or an animal, whose properties far exceed those of a mere extended solid substance ?

But it is farther urged, that we cannot conceive how matter can think. I grant it ; but to argue from thence, that God therefore cannot give to matter a faculty of thinking, is to say God's omnipotency is limited to a narrow compass, because man's understanding is so ; and brings down God's infinite power to the size of our capacities. If God can give no power to any parts of matter, but what men can account for from the essence of matter in general ; if all such qualities and properties must destroy the essence, or change the essential properties of matter, which are to our conceptions above it, and we cannot conceive to be the natural consequence of that essence ; it is plain, that the essence of matter is destroyed, and its essential properties changed, in most of the sensible parts of this our system. For it is visible, that all the planets have revolutions about certain remote centres, which I would have any one explain, or make conceivable by the bare essence, or natural powers depending on the essence of matter in general, without something added to that essence, which we cannot conceive ; for the moving of matter in a crooked line, or the attraction of matter by matter, is all that can be said in the case ; either of which it is above our reach to derive from the essence of matter or body in general ; though one of these two must unavoidably be allowed to be superadded in this instance to the essence of matter in general. The omnipotent Creator advised not with us in the making of the world, and his ways are not the less excellent because they are past finding out.

In the next place, the vegetable part of the creation is not doubted to be wholly material ; and yet he that will look into it, will observe excellencies and operations in this part of matter, which he will not find contained in the essence of matter in general, nor be able to conceive how they can be produced by it. And will he therefore say, that the essence of matter is destroyed in them, because they have properties and operations not contained in the essential properties of matter as matter, nor explicable by the essence of matter in general ?

Let us advance one step farther, and we shall in the animal world meet with yet greater perfections and properties, no ways explicable by the essence of matter in general. If the omnipotent Creator had not superadded to the earth, which produced the irrational animals, qualities far surpassing those of the dull dead earth, out of which they were made, life, sense, and spontaneous motion, nobler qualities than were before in it, it had still remained rude senseless matter ; and if to the individuals of each species he had not superadded a power of propagation, the species had perished with those individuals ; but by these essences or properties of each species, superadded to the matter which they were made of, the essence or properties of matter in general were not destroyed or changed, any more than any thing that was in the individuals before was destroyed or

changed by the power of generation, superadded to them by the first benediction of the Almighty.

In all such cases, the superinducement of greater perfections and nobler qualities destroys nothing of the essence or perfections that were there before ; unless there can be showed a manifest repugnancy between them : but all the proof offered for that, is only, that we cannot conceive how matter without such superadded perfections, can produce such effects ; which is, in truth, no more than to say, matter in general, or every part of matter, as matter, has them not ; but is no reason to prove, that God, if he pleases, cannot superadd them to some parts of matter, unless it can be proved to be a contradiction, that God should give to some parts of matter qualities and perfections, which matter in general has not ; though we cannot conceive how matter is invested with them, or how it operates by virtue of those new endowments ; nor is it to be wondered that we cannot, whilst we limit all its operations to those qualities it had before, and would explain them by the known properties of matter in general, without any such induced perfections. For, if this be a right rule of reasoning, to deny a thing to be, because we cannot conceive the manner how it comes to be ; I shall desire them who use it to stick to this rule, and see what work it will make both in divinity as well as philosophy ; and whether they can advance any thing more in favour of scepticism.

For to keep within the present subject of the power of thinking and self-motion, bestowed by omnipotent power in some parts of matter : the objection to this is, I cannot conceive how matter should think. What is the consequence ? Ergo, God cannot give it a power to think. Let this stand for a good reason, and then proceed in other cases by the same. You cannot conceive how matter can attract matter at any distance, much less at the distance of 1,000,000 miles ; ergo, God cannot give it such a power : you cannot conceive how matter should feel, or move itself, or affect an immaterial being, or be moved by it ; ergo, God cannot give it such powers : which is in effect to deny gravity, and the revolution of the planets about the sun ; to make brutes mere machines, without sense or spontaneous motion ; and to allow man neither sense nor voluntary motion.

Let us apply this rule one degree farther. You cannot conceive how an extended solid substance should think, therefore God cannot make it think : can you conceive how your own soul, or any substance, thinks ? You find indeed that you do think, and so do I ; but I want to be told how the action of thinking is performed : this, I confess, is beyond my conception ; and I would be glad any one, who conceives it, would explain it to me. God, I find, has given me this faculty ; and since I cannot but be convinced of his power in this instance, which though I every moment experiment in myself, yet I cannot conceive the manner of ; what would it be less than an insolent absurdity, to deny his power in other like cases, only for this reason, because I cannot conceive the manner how ?

To explain this matter a little farther : God has created a substance ; let it be, for example, a solid extended substance. Is God bound to give it, besides being, a power of action ? that, I think, nobody will say : he therefore may leave it in a state of inactivity,

and it will be nevertheless a substance ; for action is not necessary to the being of any substance that God does create. God has likewise created and made to exist, *de novo*, an immaterial substance, which will not lose its being of a substance, though God should bestow on it nothing more but this bare being, without giving it any activity at all. Here are now two distinct substances, the one material, the other immaterial, both in a state of perfect inactivity. Now I ask, what power God can give to one of these substances (supposing them to retain the same distinct natures that they had as substances in their state of inactivity) which he cannot give to the other ? In that state, it is plain, neither of them thinks ; for thinking being an action, it cannot be denied, that God can put an end to any action of any created substance, without annihilating of the substance whereof it is an action ; and if it be so, he can also create or give existence to such a substance, without giving that substance any action at all. By the same reason it is plain, that neither of them can move itself : now I would ask, why Omnipotency cannot give to either of these substances, which are equally in a state of perfect inactivity, the same power that it can give to the other ? Let it be, for example, that of spontaneous or self-motion, which is a power that it is supposed God can give to an unsolid substance, but denied that he can give to solid substance.

If it be asked, why they limit the omnipotency of God, in reference to the one rather than the other of these substances ? all that can be said to it is, that they cannot conceive, how the solid substance should ever be able to move itself. And as little, say I, are they able to conceive, how a created unsolid substance should move itself. But there may be something in an immaterial substance, that you do not know. I grant it ; and in a material one too : for example, gravitation of matter towards matter, and in the several proportions observable, inevitably shows, that there is something in matter that we do not understand, unless we can conceive self-motion in matter ; or an inexplicable and inconceivable attraction in matter, at immense, almost incomprehensible distances : it must therefore be confessed, that there is something in solid, as well as unsolid substances, that we do not understand. But this we know, that they may each of them have their distinct beings, without any activity superadded to them, unless you will deny, that God can take from any being its power of acting, which it is probable will be thought too presumptuous for any one to do ; and I say it is as hard to conceive self-motion in a created immaterial, as in a material being, consider it how you will : and therefore this is no reason to deny Omnipotency to be able to give a power of self-motion to a material substance, if he pleases, as well as to an immaterial ; since neither of them can have it from themselves, nor can we conceive how it can be in either of them.

The same is visible in the other operation of thinking. Both these substances may be made, and exist without thought ; neither of them has, or can have the power of thinking from itself ; God may give it to either of them, according to the good pleasure of his omnipotency ; and in which ever of them it is, it is equally beyond our

capacity to conceive, how either of these substances thinks. But for that reason, to deny that God, who had power enough to give them both a being out of nothing, can by the same omnipotency, give them what other powers and perfections he pleases, has no better foundation than to deny his power of creation, because we cannot conceive how it is performed ; and there, at last, this way of reasoning must terminate.

That omnipotency cannot make a substance to be solid and not solid at the same time, I think with due reverence we may say ; but that a solid substance may not have qualities, perfections, and powers, which have no natural or visibly necessary connexion with solidity and extension, is too much for us (who are but of yesterday, and know nothing) to be positive in. If God cannot join things together by connexions inconceivable to us, we must deny even the consistency and being of matter itself ; since every particle of it having some bulk, has its parts connected by ways inconceivable to us. So that all the difficulties that are raised against the thinking of matter, from our ignorance, or narrow conceptions, stand not at all in the way of the power of God, if he pleases to ordain it so ; nor prove any thing against his having actually endued some parcels of matter, so disposed as he thinks fit, with a faculty of thinking, till it can be shown, that it contains a contradiction to suppose it.

Though to me sensation be comprehended under thinking in general, yet, in the foregoing discourse, I have spoke of sense in brutes, as distinct from thinking ; because your lordship, as I remember, speaks of sense in brutes. But here I take liberty to observe, that if your lordship allows brutes to have sensation, it will follow, either that God can and doth give to some parcels of matter a power of perception and thinking ; or that all animals have immaterial, and consequently, according to your lordship, immortal souls, as well as men ; and to say that fleas and mites, &c. have immortal souls as well as men, will possibly be looked on as going a great way to serve an hypothesis.

I have been pretty large in making this matter plain, that they who are so forward to bestow hard censures or names on the opinions of those who differ from them, may consider whether sometimes they are not more due to their own ; and that they may be persuaded a little to temper that heat, which, supposing the truth in their current opinions, gives them (as they think) a right to lay what imputations they please on those who would fairly examine the grounds they stand upon. For talking with a supposition and insinuations, that truth and knowledge, nay, and religion too, stand and fall with their systems, is at best but an imperious way of begging the question, and assuming to themselves, under the pretence of zeal for the cause of God, a title to infallibility. It is very becoming that men's zeal for truth should go as far as their proofs, but not go for proofs themselves. He that attacks received opinions with any thing but fair arguments, may, I own, be justly suspected not to mean well, nor to be led by the love of truth ; but the same may be said of him too, who so defends them. An error is not the better for being common, nor truth the worse for having lain neglected ; and if it were put to

the vote any where in the world, I doubt, as things are managed, whether truth would have the majority, at least whilst the authority of men, and not the examination of things, must be its measure. The imputation of scepticism, and those broad insinuations to render what I have writ suspected, so frequent, as if that were the great business of all this pains you have been at about me, has made me say thus much, my lord, rather as my sense of the way to establish truth in its full force and beauty, than that I think the world will need to have any thing said to it, to make it distinguish between your lordship's and my design in writing, which therefore I securely leave to the judgment of the reader, and return to the argument in hand.

What I have above said, I take to be a full answer to all that your lordship would infer from my idea of matter, of liberty, of identity, and from the power of abstracting. You ask, * How can my idea of liberty agree with the idea that bodies can operate only by motion and impulse? Ans. By the omnipotency of God, who can make all things agree, that involve not a contradiction. It is true, I say, † That bodies operate by impulse, and nothing else." And so I thought when I writ it, and can yet conceive no other way of their operation. But I am since convinced by the judicious Mr. Newton's incomparable book, that it is too bold a presumption to limit God's power in this point by my narrow conceptions. The gravitation of matter towards matter, by ways unconceivable to me, is not only a demonstration that God can, if he pleases, put into bodies powers, and ways of operation, above what can be derived from our idea of body, or can be explained by what we know of matter, but also an unquestionable, and every where visible instance, that he has done so. And therefore in the next edition of my book, I will take care to have that passage rectified.

As to self-consciousness, your lordship asks ‡, What is there like self-consciousness in matter? Nothing at all in matter as matter. But that God cannot bestow on some parcels of matter a power of thinking, and with it self-consciousness, will never be proved by asking ||, How is it possible to apprehend that mere body should perceive that it doth perceive? The weakness of our apprehension I grant in the case: I confess as much as you please, that we cannot conceive how a solid, no, nor how an unsolid created substance thinks; but this weakness of our apprehensions reaches not the power of God, whose weakness is stronger than any thing in men.

Your argument from abstraction we have in this question, || If it may be in the power of matter to think, how comes it to be so impossible for such organized bodies as the brutes have, to enlarge their ideas by abstraction? Answ. This seems to suppose, that I place thinking within the natural power of matter. If that be your meaning, my lord, I never say, nor suppose, that all matter has naturally in it a faculty of thinking, but the direct contrary. But if you mean that certain parcels of matter, ordered by the Divine power, as seems fit to him, may be made capable of receiving from his om-

* 1st Ans. † Essay, B. 2. Ch. 8. § 11. ‡ 1st Ans. - || Ibid.

nipotency the faculty of thinking ; that, indeed, I say ; and that being granted, the answer to your question is easy ; since, if Omnipotency can give thought to any solid substance, it is not hard to conceive, that God may give that faculty in a higher or lower degree, as it pleases him, who knows what disposition of the subject is suited to such a particular way or degree of thinking.

Another argument to prove, that God cannot endue any parcel of matter with the faculty of thinking, is taken from those words of mine ^e, where I show, by what connexion of ideas we may come to know, that God is an immaterial substance. They are these, “ The idea of an eternal actual knowing being, with the idea of immateriality, by the intervention of the idea of matter, and of its actual division, divisibility, and want of perception,” &c. From whence your lordship thus argues †, Here the want of perception is owned to be so essential to matter, that God is therefore concluded to be immaterial. Answ. Perception and knowledge in that one eternal Being, where it has its source, it is visible, must be essentially inseparable from it ; therefore the actual want of perception in so great a part of the particular parcels of matter, is a demonstration, that the first being, from whom perception and knowledge are inseparable, is not matter : how far this makes the want of perception an essential property of matter, I will not dispute ; it suffices that it shows, that perception is not an essential property of matter ; and therefore matter cannot be that eternal original being to which perception and knowledge are essential. Matter, I say, naturally is without perception : ergo, says your lordship, want of perception is an essential property of matter ; and God does not change the essential properties of things, their nature remaining. From whence you infer, that God cannot bestow on any parcel of matter (the nature of matter remaining) a faculty of thinking. If the rules of logic, since my days, be not changed, I may safely deny this consequence. For an argument that runs thus, God does not ; ergo, he cannot, I was taught when I first came to the university, would not hold. For I never said God did ; but ‡, “ That I see no contradiction in it, that he should, if he pleased, give to some systems of senseless matter a faculty of thinking ;” and I know nobody before Des Cartes, that ever pretended to show that there was any contradiction in it. So that at worst, my not being able to see in matter any such incapacity as makes it impossible for Omnipotency to bestow on it a faculty of thinking, makes me opposite only to the Cartesians. For, as far as I have seen or heard, the fathers of the Christian church never pretended to demonstrate that matter was incapable to receive a power of sensation, perception, and thinking, from the hand of the omnipotent Creator. Let us therefore, if you please, suppose the form of your argumentation right, and that your lordship means, God cannot : and then, if your argument be good, it proves, that God could not give to Balaam’s ass a power to speak to his master as he did ; for the want of rational discourse being natural to that species, it is but for your lordship to call it an es-

^e 1st Letter.

† 1st Ans.

‡ B. 4. C. 3. § 6.

sential property, and then God cannot change the essential properties of things, their nature remaining: whereby it is proved, that God cannot, with all his omnipotency, give to an ass a power to speak as Balaam's did.

You say *, my lord, You do not set bounds to God's omnipotency: for he may, if he please, change a body into an immaterial substance, *i. e.* take away from a substance the solidity which it had before, and which made it matter, and then give it a faculty of thinking, which it had not before, and which makes it a spirit, the same substance remaining. For if the substance remains not, body is not changed into an immaterial substance, but the solid substance, and all belonging to it, is annihilated, and an immaterial substance created, which is not a change of one thing into another, but the destroying of one, and making another *de novo*. In this change therefore of a body or material substance into an immaterial, let us observe these distinct considerations.

First, you say, God may, if he pleases, take away from a solid substance solidity, which is that which makes it a material substance or body; and may make it an immaterial substance, *i. e.* a substance without solidity. But this privation of one quality gives it not another; the bare taking away a lower or less noble quality does not give it an higher or nobler; that must be the gift of God. For the bare privation of one, and a meaner quality, cannot be the position of an higher and better; unless any one will say, that cogitation, or the power of thinking results from the nature of substance itself: which if it do, then wherever there is substance, there must be cogitation, or a power of thinking. Here then, upon your lordship's own principles, is an immaterial substance without the faculty of thinking.

In the next place, you will not deny, but God may give to this substance, thus deprived of solidity, a faculty of thinking; for you suppose it made capable of that, by being made immaterial; whereby you allow, that the same numerical substance may be sometimes wholly incogitative, or without a power of thinking, and at other times perfectly cogitative, or endued with a power of thinking.

Further, you will not deny, but God can give it solidity and make it material again. For, I conclude, it will not be denied, that God can make it again what it was before. Now I crave leave to ask your lordship, why God, having given to this substance the faculty of thinking after solidity was taken from it, cannot restore to it solidity again, without taking away the faculty of thinking? When you have resolved this, my lord, you will have proved it impossible for God's omnipotence to give a solid substance a faculty of thinking; but till then, not having proved it impossible, and yet denying that God can do it, is to deny that he can do what is in itself possible; which, as I humbly conceive, is visibly to set bounds to God's omnipotency, though you say here † you do not set bounds to God's omnipotency.

* 1st Answer.

† Ibid.

If I should imitate your lordship's way of writing, I should not omit to bring in Epicurus here, and take notice that this was his way, *Deum verbis ponere, re tollere*: and then add, that I am certain you do not think he promoted the great ends of religion and morality. For it is with such candid and kind insinuations as these, that you bring in both * Hobbes and † Spinoza into your discourse here about God's being able, if he please, to give to some parcels of matter, ordered as he thinks fit, a faculty of thinking: neither of those authors having, as appears by any passages you bring out of them, said any thing to this question, nor having, as it seems, any other business here, but by their names skilfully to give that character to my book, with which you would recommend it to the world.

I pretend not to inquire what measure of zeal, nor for what, guides your lordship's pen in such a way of writing, as yours has all along been with me: only I cannot but consider, what reputation it would give to the writings of the fathers of the church, if they should think truth required, or religion allowed them to imitate such patterns. But God be thanked, there be those amongst them, who do not admire such ways of managing the cause of truth or religion; they being sensible that if every one, who believes or can pretend he hath truth on his side, is thereby authorized, without proof, to insinuate whatever may serve to prejudice men's minds against the other side, there will be great ravage made on charity and practice, without any gain to truth or knowledge: and that the liberties frequently taken by disputants to do so, may have been the cause that the world in all ages has received so much harm, and so little advantage from controversies in religion.

These are the arguments which your lordship has brought to confute one saying in my book, by other passages in it; which therefore being all but *argumenta ad hominem*, if they did prove what they do not, are of no other use, than to gain a victory over me: a thing, methinks, so much beneath your lordship, that it does not deserve one of your pages. The question is, whether God can, if he pleases, bestow on any parcel of matter, ordered as he thinks fit, a faculty of perception and thinking. You say ‡, you look upon a mistake herein to be of dangerous consequence, as to the great ends of religion and morality. If this be so, my lord, I think one may well wonder, why your lordship has brought no arguments to establish the truth itself which you look on to be of such dangerous consequence to be mistaken in; but have spent so many pages only in a personal matter, in endeavouring to show, that I had inconsistencies in my book; which if any such thing had been showed, the question would be still as far from being decided, and the danger of mistaking about it as little prevented, as if nothing of all this had been said. If therefore your lordship's care of the great ends of religion and morality have made you think it necessary to clear this question, the world has reason to conclude there is little to be said against that proposition which is to be found in my book, concerning the

* 1st Answer.

† Ibid.

‡ Ibid.

possibility, that some parcels of matter might be so ordered by Omnipotence, as to be endued with a faculty of thinking, if God so pleased; since your lordship's concern for the promoting the great ends of religion and morality, has not enabled you to produce one argument against a proposition that you think of so dangerous consequence to them.

And here I crave leave to observe, that though in your title page you promise to prove, that my notion of ideas is inconsistent with itself, (which if it were, it could hardly be proved to be inconsistent with any thing else) and with the articles of the Christian faith; yet your attempts all along have been to prove me, in some passages of my book, inconsistent with myself, without having shown any proposition in my book inconsistent with any article of the Christian faith.

I think your lordship has indeed made use of one argument of your own: but it is such an one, that I confess I do not see how it is apt much to promote religion, especially the Christian religion, founded on revelation. I shall set down your lordship's words, that they may be considered. You say *, that you are of opinion, that the great ends of religion and morality are best secured by the proofs of the immortality of the soul from its nature and properties; and which you think prove it immaterial. Your lordship does not question whether God can give immortality to a material substance; but you say it takes off very much from the evidence of immortality, if it depend wholly upon God's giving that, which of its own nature it is not capable of, &c. So likewise you say †, If a man cannot be certain, but that matter may think, (as I affirm) then what becomes of the soul's immateriality (and consequently immortality) from its operations? But for all this, say I, his assurance of faith remains on its own basis. Now you appeal to any man of sense, whether the finding the uncertainty of his own principles, which he went upon, in point of reason, doth not weaken the credibility of these fundamental articles, when they are considered purely as matters of faith? For before, there was a natural credibility in them on account of reason; but by going on wrong grounds of certainty, all that is lost, and instead of being certain, he is more doubtful than ever. And if the evidence of faith fall so much short of that of reason, it must needs have less effect upon men's minds, when the subserviency of reason is taken away; as it must be when the grounds of certainty by reason are vanished. Is it at all probable, that he who finds his reason deceive him in such fundamental points, shall have his faith stand firm and unmoveable on the account of revelation? For in matters of revelation there must be some antecedent principles supposed, before we can believe any thing on the account of it.

More to the same purpose we have some pages farther, where, from some of my words your lordship says ‡, you cannot but observe, that we have no certainty upon my grounds, that self-consciousness depends upon an individual immaterial substance, and consequently that a material substance may, according to my principles, have

* 1st Answer.

† 2d Answer.

‡ Ibid.

self-consciousness in it; at least, that I am not certain of the contrary. Whereupon your lordship bids me consider, whether this doth not a little affect the whole article of the resurrection. What does all this tend to, but to make the world believe that I have lessened the credibility of the immortality of the soul, and the resurrection, by saying, that though it be most highly probable, that the soul is immaterial, yet upon my principles it cannot be demonstrated; because it is not impossible to God's omnipotency, if he pleases, to bestow upon some parcels of matter, disposed as he sees fit, a faculty of thinking?

This your accusation of my lessening the credibility of these articles of faith, is founded on this, that the article of the immortality of the soul abates of its credibility, if it be allowed, that its immateriality (which is the supposed proof from reason and philosophy of its immortality) cannot be demonstrated from natural reason: which argument of your lordship's bottoms, as I humbly conceive, on this, that divine revelation abates of its credibility in all those articles it proposes, proportionably as human reason fails to support the testimony of God. And all that your lordship in those passages has said, when examined, will, I suppose, be found to import thus much, viz. Does God propose any thing to mankind to be believed? It is very fit and credible to be believed, if reason can demonstrate it to be true. But if human reason come short in the case, and cannot make it out, its credibility is thereby lessened; which is in effect to say, that the veracity of God is not a firm and sure foundation of faith to rely upon, without the concurrent testimony of reason; *i. e.* with reverence be it spoken, God is not to be believed on his own word, unless what he reveals be in itself credible, and might be believed without him.

If this be a way to promote religion, the Christian religion, in all its articles, I am not sorry that it is not a way to be found in any of my writings; for I imagine any thing like this would (and I should think deserved to) have other titles than bare scepticism bestowed upon it, and would have raised no small outcry against any one, who is not to be supposed to be in the right in all that he says, and so may securely say what he pleases. Such as I, the profanum vulgus, who take too much upon us, if we would examine, have nothing to do but to hearken and believe, though what he said should subvert the very foundations of the Christian faith.

What I have above observed, is so visibly contained in your lordship's argument, that when I met with it in your answer to my first letter, it seemed so strange for a man of your lordship's character, and in a dispute in defence of the doctrine of the Trinity, that I could hardly persuade myself, but it was a slip of your pen: but when I found it in your second letter^a made use of again, and seriously enlarged as an argument of weight to be insisted upon, I was convinced that it was a principle that you heartily embraced, how little favourable soever it was to the articles of the Christian religion, and particularly those which you undertook to defend.

^a 2d Answer.

I desire my reader to peruse the passages as they stand in your letters themselves, and see whether what you say in them does not amount to this: that a revelation from God is more or less credible, according as it has a stronger or weaker confirmation from human reason. For,

1. Your lordship says *, you do not question whether God can give immortality to a material substance; but you say it takes off very much from the evidence of immortality, if it depends wholly upon God's giving that, which of its own nature it is not capable of.

To which I reply, any one's not being able to demonstrate the soul to be immaterial, takes off not very much, nor at all, from the evidence of its immortality, if God has revealed that it shall be immortal; because the veracity of God is a demonstration of the truth of what he has revealed, and the want of another demonstration of a proposition, that is demonstratively true, takes not off from the evidence of it. For where there is a clear demonstration, there is as much evidence as any truth can have, that is not self-evident. God has revealed that the souls of men should live for ever. But, says your lordship, from this evidence it takes off very much, if it depends wholly upon God's giving that, which of its own nature it is not capable of, *i. e.* The revelation and testimony of God loses much of its evidence, if this depends wholly upon the good pleasure of God, and cannot be demonstratively made out by natural reason, that the soul is immaterial, and consequently in its own nature immortal. For that is all that here is or can be meant by these words, which of its own nature it is not capable of, to make them to the purpose. For the whole of your lordship's discourse here, is to prove, that the soul cannot be material, because then the evidence of its being immortal would be very much lessened. Which is to say, that it is not as credible upon divine revelation, that a material substance should be immortal, as an immaterial; or which is all one, that God is not equally to be believed, when he declares, that a material substance shall be immortal, as when he declares, that an immaterial shall be so; because the immortality of a material substance cannot be demonstrated from natural reason.

Let us try this rule of your lordship's a little farther. God hath revealed, that the bodies men shall have after the resurrection, as well as their souls, shall live to eternity. Does your lordship believe the eternal life of the one of these more than of the other, because you think you can prove it of one of them by natural reason, and of the other not? Or can any one, who admits of divine revelation in the case, doubt of one of them more than the other? Or think this proposition less credible, that the bodies of men, after the resurrection, shall live for ever; than this, That the souls of men shall, after the resurrection, live for ever? For that he must do, if he thinks either of them is less credible than the other. If this be so, reason is to be consulted how far God is to be believed, and the credit of divine testimony must receive its force from the evidence of reason; which is evidently to take away the credibility of divine relation in all su-

* 1st Answer.

pernatural truths, wherein the evidence of reason fails. And how much such a principle as this tends to the support of the doctrine of the Trinity, or the promoting the Christian religion, I shall leave it to your lordship to consider.

I am not so well read in Hobbes or Spinoso, as to be able to say, what were their opinions in this matter. But possibly there be those, who will think your lordship's authority of more use to them in the case, than those justly decried names; and be glad to find your lordship a patron of the oracles of reason, so little to the advantage of the oracles of divine revelation. This at least, I think, may be subjoined to the words at the bottom of the next page *, That those who have gone about to lessen the credibility of the articles of faith, which evidently they do, who say they are less credible, because they cannot be made out demonstratively by natural reason, have not been thought to secure several of the articles of the Christian faith, especially those of the trinity, incarnation, and resurrection of the body, which are those upon the account of which I am brought by your lordship into this dispute.

I shall not trouble the reader with your lordship's endeavours, in the following words, to prove, that if the soul be not an immaterial substance, it can be nothing but life; your very first words visibly confuting all that you allege to that purpose; they are, † If the soul be a material substance, it is really nothing but life; which is to say, That if the soul be really a substance, it is not really a substance, but really nothing else but an affection of a substance; for the life, whether of a material or immaterial substance, is not the substance itself, but an affection of it.

2. You say, ‡ Although we think the separate state of the soul after death, is sufficiently revealed in the scripture; yet it creates a great difficulty in understanding it, if the soul be nothing but life, or a material substance, which must be dissolved when life is ended. For, if the soul be a material substance, it must be made up, as others are, of the cohesion of solid and separate parts, how minute and invisible soever they be. And what is it which should keep them together, when life is gone? So that it is no easy matter to give an account how the soul should be capable of immortality, unless it be an immaterial substance; and then we know the solution and texture of bodies cannot reach the soul, being of a different nature.

Let it be as hard a matter as it will, to give an account what it is that should keep the parts of a material soul together, after it is separated from the body; yet it will be always as easy to give an account of it, as to give an account what it is that shall keep together a material and immaterial substance. And yet the difficulty that there is to give an account of that, I hope, does not, with your lordship, weaken the credibility of the inseparable union of soul and body to eternity: and I persuade myself, that the men of sense, to whom your lordship appeals in the case, do not find their belief of this fundamental point much weakened by that difficulty. I thought heretofore (and by your lordship's permission would think so still) that

* 1st Answer.

† Ibid.

‡ Ibid.

the union of the parts of matter, one with another, is as much in the hands of God, as the union of a material and immaterial substance ; and that it does not take off very much, or at all, from the evidence of immortality, which depends on that union, that it is no easy matter to give an account what it is that should keep them together : though its depending wholly upon the gift and good pleasure of God, where the manner creates great difficulty in the understanding, and our reason cannot discover in the nature of things how it is, be that which, your lordship so positively says, lessens the credibility of the fundamental articles of the resurrection and immortality.

But, my lord, to remove this objection a little, and to show of how small force it is even with yourself ; give me leave to presume, that your lordship as firmly believes the immortality of the body after the resurrection, as any other article of faith ; if so, then it being no easy matter to give an account what it is that shall keep together the parts of a material soul, to one that believes it is material, can no more weaken the credibility of its immortality, than the like difficulty weakens the credibility of the immortality of the body. For, when your lordship shall find it an easy matter to give an account what it is, besides the good pleasure of God which shall keep together the parts of our material bodies to eternity, or even soul and body, I doubt not but any one who shall think the soul material, will also find it as easy to give an account what it is that shall keep those parts of matter also together to eternity.

Were it not that the warmth of controversy is apt to make men so far forget, as to take up those principles themselves (when they will serve their turn) which they have highly condemned in others, I should wonder to find your lordship to argue, that because it is a difficulty to understand what shall keep together the minute parts of a material soul, when life is gone ; and because it is not an easy matter to give an account how the soul shall be capable of immortality, unless it be an immaterial substance : therefore it is not so credible, as if it were easy to give an account by natural reason, how it could be. For to this it is that all this your discourse tends, as is evident by what is already set down ; and will be more fully made out by what your lordship says in other places, though there needs no such proof, since it would all be nothing against me in any other sense.

I thought your lordship had in other places asserted, and insisted on this truth, that no part of divine revelation was the less to be believed, because the thing itself created great difficulty in the understanding, and the manner of it was hard to be explained, and it was no easy matter to give an account how it was. This, as I take it, your lordship condemned in others as a very unreasonable principle, and such as would subvert all the articles of the christian religion, that were mere matters of faith, as I think it will : and is it possible, that you should make use of it here yourself, against the article of life and immortality, that Christ hath brought to light through the gospel, and neither was, nor could be made out by natural reason without revelation ? But you will say, you speak only of the soul ; and your words are, That it is no easy matter to give an account how the soul should be capable of immortality, unless it be an immaterial

substance. I grant it; but crave leave to say, that there is not any one of those difficulties, that are or can be raised about the manner, how a material soul can be immortal, which do not as well reach the immortality of the body.

But, if it were not so, I am sure this principle of your lordship's, would reach other articles of faith, wherein our natural reason finds it not so easy to give an account how those mysteries are; and which therefore according to your principles, must be less credible than other articles, that create less difficulty to the understanding. For your lordship says, * that you appeal to any man of sense, whether to a man, who thought by his principles he could from natural grounds demonstrate the immortality of the soul, the finding the uncertainty of those principles he went upon in point of reason, *i. e.* the finding he could not certainly prove it by natural reason, doth not weaken the credibility of that fundamental article, when it is considered purely as a matter of faith? which, in effect, I humbly conceive, amounts to this, that a proposition divinely revealed, that cannot be proved by natural reason, is less credible than one that can: which seems to me to come very little short of this, with due reverence be it spoken, that God is less to be believed when he affirms a proposition that cannot be proved by natural reason, than when he proposes what can be proved by it. The direct contrary to which is my opinion, though you endeavour to make it good by these following words; † If the evidence of faith fall too much short of that of reason, it must needs have less effect upon men's minds, when the subserviency of reason is taken away; as it must be when the grounds of certainty by reason are vanished. Is it at all probable, that he who finds his reason deceive him in such fundamental points, should have his faith stand firm and unmoveable on the account of revelation? Than which I think there are hardly plainer words to be found out to declare, that the credibility of God's testimony depends on the natural evidence of probability of the things we receive from revelation, and rises and falls with it; and that the truths of God, or the articles of mere faith, lose so much of their credibility, as they want proof from reason; which if true, revelation may come to have no credibility at all. For if, in this present case, the credibility of this proposition, the souls of men shall live for ever, revealed in the scripture, be lessened by confessing it cannot be demonstratively proved from reason; though it be asserted to be most highly probable: must not, by the same rule, its credibility dwindle away to nothing, if natural reason should not be able to make it out to be so much as probable, or should place the probability from natural principles on the other side? For, if mere want of demonstration lessens the credibility of any proposition divinely revealed, must not want of probability, or contrary probability from natural reason, quite take away its credibility? Here at last it must end, if in any one case the veracity of God, and the credibility of the truths we receive from him by revelation, be subjected to the verdicts of human reason, and be allowed to receive any accession or diminution from other proofs, or want of other proofs of its certainty or probability.

* 2d Answer.

† Ibid.

If this be your lordship's way to promote religion, or defend its articles, I know not what argument the greatest enemies of it could use more effectual for the subversion of those you have undertaken to defend; this being to resolve all revelation perfectly and purely into natural reason, to bound its credibility by that, and leave no room for faith in other things, than what can be accounted for by natural reason without revelation.

Your lordship * insists much upon it, as if I had contradicted what I have said in my essay, by saying † that upon my principles it cannot be demonstratively proved, that it is an immaterial substance in us that thinks, however probable it be. He that will be at the pains to read that chapter of mine, and consider it, will find, that my business there was to show, that it was no harder to conceive an immaterial than a material substance; and that from the ideas of thought, and a power of moving of matter, which we experienced in ourselves, (ideas originally not belonging to matter as matter) there was no more difficulty to conclude there was an immaterial substance in us, than that we had material parts. These ideas of thinking, and power of moving of matter, I in another place showed, did demonstratively lead us the certain knowledge of the existence of an immaterial thinking being, in whom we have the idea of spirit in the strictest sense: In which sense I also applied it to the soul, in the 23d ch. of my essay; the easily conceivable possibility, nay great probability, that the thinking substance in us is immaterial, giving me sufficient ground for it: In which sense I shall think I may safely attribute it to the thinking substance in us, till your lordship shall have better proved from my words, that it is impossible it should be immaterial. For I only say, that it is possible, *i. e.* involves no contradiction, that God, the omnipotent immaterial spirit, should, if he pleases, give to some parcels of matter, disposed as he thinks fit, a power of thinking and moving: which parcels of matter, so endued with a power of thinking and motion, might properly be called spirits, in contradistinction to unthinking matter. In all which, I presume there is no manner of contradiction.

I justified my use of the word spirit, in that sense, from the authorities of Cicero and Virgil, applying the Latin word spiritus, from whence spirit is derived, to the soul as a thinking thing, without excluding materiality out of it. To which your lordship replies, ‡ That Cicero, in his Tusculan Questions, supposes the soul not to be a finer sort of body, but of a different nature from the body—That he calls the body the prison of the soul—And says, that a wise man's business is to draw off his soul from his body. And then your lordship concludes, as is usual, with a question, Is it possible now to think so great a man looked on the soul but as a modification of the body, which must be at an end with life? Ans. No; it is impossible that a man of so good sense as Tully, when he uses the word corpus or body for the gross and visible parts of a man, which he acknowledges to be mortal, should look on the soul to be a modification of that body; in a discourse wherein he was endeavouring to

* 1st Answer. † B. 2. C. 23. ‡ 1st Answer.

persuade another, that it was immortal. It is to be acknowledged that truly great men, such as he was, are not wont so manifestly to contradict themselves. He had therefore no thought concerning the modification of the body of a man in the case: he was not such a trifler as to examine, whether the modification of the body of a man was immortal, when that body itself was mortal: and therefore, that which he reports as Dicæarchus's opinion, he dismisses in the beginning without any more ado, c. 11. But Cicero's was a direct, plain, and sensible inquiry, viz. What the soul was? to see whether from thence he could discover its immortality. But in all that discourse in his first book of Tusculan Questions, where he lays out so much of his reading and reason, there is not one syllable showing the least thought that the soul was an immaterial substance; but many things directly to the contrary.

Indeed (1) he shuts out the body, taken in the senses he uses * corpus all along, for the sensible organical parts of a man; and is positive that is not the soul: and body in this sense, taken for the human body, he calls the prison of the soul: and says a wise man, instancing in Socrates and Cato, is glad of a fair opportunity to get out of it. But he no where says any such thing of matter: he calls not matter in general the prison of the soul, nor talks a word of being separate from it.

2. He concludes, that the soul is not, like other things here below, made up of a composition of the elements, ch. 27.

3. He excludes the two gross elements, earth and water, from being the soul, ch. 26.

So far he is clear and positive: but beyond this he is uncertain; beyond this he could not get: for in some places he speaks doubtfully, whether the soul be not air or fire. *Anima sit animus, ignisve, nesico*, c. 25. And therefore he agrees with Panætius, that if it be at all elementary, it is, as he calls it, *inflammiata anima*, inflamed air; and for this he gives several reasons, c. 18, 19. And though he thinks it to be of a peculiar nature of its own, yet he is so far from thinking it immaterial, that he says, c. 19. that the admitting it to be of an aerial or igneous nature, will not be inconsistent with any thing he had said.

That which he seems most to incline to is, that the soul was not at all elementary, but was of the same substance with the heavens; which Aristotle, to distinguish from the four elements, and the changeable bodies here below, which he supposed made up of them, called *quinta essentia*. That this was Tully's opinion is plain from these words, *Ergo animus (qui, ut ego dico, divinus) est, ut Euripides audet dicere, Deus; & quidem, si Deus aut anima aut ignis est, idem est animus hominis. Nam ut illa natura cœlestis et terrâ vacat & humore; sic utriusque harum rerum humanus animus est expers. Sin autem est quinta quædam natura ab Aristotele inducta; primum hæc & deorum est & animorum. Hanc nos sententiam secuti, his ipsis verbis in consolatione hæc expressimus*, ch. 29. And then he goes on, c. 27. to repeat those his own words, which your lordship has quoted out of him, wherein he had affirmed, in his treatise

* Ch. 19, 22, 30, 31, &c.

tise De Consolatione, the soul not to have its original from the earth, or to be mixed or made of any thing earthly; but had said, singularis est igitur quædam natura & vis animi, sejuncta ab his usitatis notisque naturis: whereby he tells us, he meant nothing but Aristotle's quinta essentia: which being unmixed, being that of which the gods and souls consisted, he calls it divinum cœleste, and concludes it eternal; it being, as he speaks, sejuncta ab omni mortali concre-tione. From which it is clear, that in all his inquiry about the substance of the soul, his thoughts went not beyond the four elements, or Aristotle's quinta essentia, to look for it. In all which there is nothing of immateriality, but quite the contrary.

He was willing to believe (as good and wise men have always been) that the soul was immortal; but for that, it is plain, he never thought of its immateriality, but as the eastern people do, who believe the soul to be immortal, but have nevertheless no thought, no conception of its immateriality. It is remarkable what a very considerable and judicious author says * in the case. No opinion, says he, has been so universally received as that of the immortality of the soul; but its immateriality is a truth, the knowledge whereof has not spread so far. And indeed it is extremely difficult to let into the mind of a Siamite the idea of a pure spirit. This the missionaries who have been longest among them, are positive in. All the pagans of the east do truly believe, that there remains something of a man after his death, which subsists independently and separately from his body. But they give extension and figure to that which remains, and attribute to it all the same members, all the same substances, both solid and liquid, which our bodies are composed of. They only suppose that the souls are of a matter subtile enough to escape being seen or handled.—Such were the shades and manes of the Greeks and the Romans. And it is by these figures of the souls, answerable to those of the bodies, that Virgil supposed Æneas knew Palinurus, Dido, and Auchises, in the other world.

This gentleman was not a man that travelled into those parts for his pleasure, and to have the opportunity to tell strange stories, collected by chance, when he returned; but one chosen on purpose (and he seems well chosen for the purpose) to inquire into the singularities of Siam. And he has so well acquitted himself of the commission, which his epistle dedicatory tells us he had, to inform himself exactly of what was most remarkable there, that had we but such an account of other countries of the east, as he has given us of this kingdom, which he was an envoy to, we should be much better acquainted than we are, with the manners, notions, and religions of that part of the world inhabited by civilized nations, who want neither good sense nor acuteness of reason, though not cast into the mould of the logic and philosophy of our schools.

† But to return to Cicero: it is plain that in his inquiries about the soul, his thoughts went not at all beyond matter. This the expressions that drop from him in several places of this book evidently show. For example, that the souls of excellent men and women as-

* Loubere du Royaume de Siam, T. 1, c. 19. § 4.

cended into heaven; of others, that they remained here on earth, c. 12. That the soul is hot, and warms the body: that, at its leaving the body, it penetrates, and divides, and breaks through our thick, cloudy, moist air: that it stops in the region of fire, and ascends no farther, the equality of warmth and weight making that its proper place, where it is nourished and sustained, with the same things wherewith the stars are nourished and sustained, and that by the convenience of its neighbourhood it shall there have a clearer view and fuller knowledge of the heavenly bodies, c. 19. That the soul also from this height shall have a pleasant and fairer prospect of the globe of the earth, the disposition of whose parts will then lie before it in one view, c. 20. That it is hard to determine what conformation, size, and place, the soul has in the body; that it is too subtile to be seen; that it is in the human body as in a house, or a vessel, or a receptacle, c. 22. All which are expressions that sufficiently evidence, that he who used them had not in his mind separated materiality from the idea of the soul.

It may perhaps be replied, that a great part of this which we find in chap. 19. is said upon the principles of those who would have the soul to be *anima inflammata*, inflamed air. I grant it. But it is also to be observed, that in this 19th, and the two following chapters, he does not only not deny, but even admits, that so material a thing as inflamed air may think.

The truth of the case in short is this: Cicero was willing to believe the soul immortal; but, when he sought in the nature of the soul itself something to establish this his belief into a certainty of it, he found himself at a loss. He confessed he knew not what the soul was; but the not knowing what it was, he argues, c. 22. was no reason to conclude it was not. And thereupon he proceeds to the repetition of what he had said in his 6th book, *De Repub.* concerning the soul. The argument, which, borrowed from Plato, he there makes use of, if it have any force in it, not only proves the soul to be immortal, but more than, I think, your lordship will allow to be true: for it proves it to be eternal, and without beginning, as well as without end: *Neque nata certa est, & æterna est*, says he.

Indeed from the faculties of the soul he concludes right, that it is of divine original: but as to the substance of the soul, he at the end of this discourse concerning its faculties, c. 25. as well as at this beginning of it, c. 22. is not ashamed to own his ignorance of what it is; *Anima sit animus, ignisve, nescio; nec me pudet, ut istos, fateri nescire quod nesciam. Illud si ulla alia de re obscura affirmare possem, sive anima, sive ignis sit animus, eum jurarem esse divinum*, c. 25. So that all the certainty he could attain to about the soul, was, that he was confident there was something divine in it, *i. e.* there were faculties in the soul that could not result from the nature of matter, but must have their original from a divine power; but yet those qualities, as divine as they were, he acknowledged might be placed in breath or fire, which, I think, your lordship will not deny to be material substances. So that all those divine qualities, which he so much and so justly extols in the soul, led him not, as appears, so much as to any the least thought of immateriality. This is demonstration, that he built them not upon an exclusion of materiality out

of the soul ; for he avowedly professes he does not know, but breath or fire might be this thinking thing in us ; and in all his considerations about the substance of the soul itself, he stuck in air, or fire, or Aristotle's quinta essentia ; for beyond those it is evident he went not.

But with all his proofs out of Plato, to whose authority he defers so much, with all the arguments his vast reading and great parts could furnish him with for the immortality of the soul, he was so little satisfied, so far from being certain, so far from any thought that he had, or could prove it, that he over and over again professes his ignorance and doubt of it. In the beginning he enumerates the several opinions of the philosophers, which he had well studied, about it : and then, full of uncertainty, says, *Harum, sententiarum quæ vera sit, Deus aliquis viderit ; quæ verisimillima, magna quæstio, c. 11.* And towards the latter end, having gone them all over again, and one after another examined them, he professes himself still at a loss, not knowing on which to pitch, nor what to determine. *Mentis acies, says he, seipsam intuens, nonnuquam hebescit, ob eamque causam contemplandi diligentiam amittimus. Itaque dubitans, circumspectans, hæsitans, multa adversa revertens, tanquam in rate in mari immenso, nostra vehitur oratio, c. 30.* And to conclude this argument, when the person he introduces as discoursing with him, tells him he is resolved to keep firm to the belief of immortality ; Tully answers, *c. 32. Laudo id quidem, etsi nihil animis oportet considerare : movemur enim sæpe aliquo acute concluso ; labamus, mutamusque sententiam clarioribus etiam in rebus ; in his est enim aliqua obscuritas.*

So unmoveable is that truth delivered by the spirit of truth, that though the light of nature gave some obscure glimmering, some uncertain hopes of a future state ; yet human reason could attain to no clearness, no certainty about it, but that it was JESUS CHRIST alone, who had brought life and immortality to light through the gospel*. Though we are now told, that to own the inability of natural reason to bring immortality to light, or which passes for the same, to own principles upon which the immateriality of the soul, (and, as it is urged, consequently its immortality) cannot be demonstratively proved, does lessen the belief of this article of revelation, which JESUS CHRIST alone has brought to light, and which consequently the scripture assures us is established and made certain only by revelation. This would not perhaps have seemed strange, from those who are justly complained of for slighting the revelation of the gospel, and therefore would not be much regarded, if they should contradict so plain a text of scripture, in favour of their all-sufficient reason : but what use the promoters of scepticism and infidelity, in an age so much suspected by your lordship, may make of what comes from one of your great authority and learning, may deserve your consideration.

And thus, my lord, I hope, I have satisfied you concerning Cicero's opinion about the soul, in his first book of Tusculan ques-

* 2 Tim. i. 10.

tions; which, though I easily believe, as your lordship says, you are no stranger to, yet I humbly conceive you have not shown, (and, upon a careful perusal of that treatise again, I think I may boldly say you cannot show) one word in it, that expresses any thing like a notion in Tully of the soul's immateriality, or its being an immaterial substance.

From what you bring out of Virgil, your lordship concludes*, That he, no more than Cicero, does me any kindness in this matter, being both assertors of the soul's immortality. My lord, were not the question of the soul's immateriality, according to custom, changed here into that of its immortality, which I am no less an assertor of than either of them, Cicero and Virgil do me all the kindness I desired of them in this matter; and that was to show, that they attributed the word spiritus to the soul of man, without any thought of its immateriality; and this the verses you yourself bring out of Virgil †,

Et cum frigida mors animâ seduxerit artus,

Omnibus umbra locis adero; dabis, improbe, pœnas;

confirm, as well as those I quoted out of his 6th book: and for this Monsieur de la Loubere shall be my witness in the words above set down out of him; where he shows that there be those amongst the heathens of our days, as well as Virgil and others amongst the ancient Greeks and Romans, who thought the souls or ghosts of men departed did not die with the body, without thinking them to be perfectly immaterial; the latter being much more incomprehensible to them than the former. And what Virgil's notion of the soul is, and that corpus, when put in contradistinction to the soul, signifies nothing but the gross tenement of flesh and bones, is evident from this verse of his *Æneid* 6. where he calls the souls which yet were visible,

————— Tenues sine corpore vitas.

Your lordship's † answer concerning what is said *Eccles. xii.* turns wholly upon Solomon's taking the soul to be immortal, which was not what I question: all that I quoted that place for, was to show, that spirit in English might properly be applied to the soul, without any notion of its immateriality, as *רוח* was by Solomon, which, whether he thought the souls of men to be immaterial, does little appear in that passage where he speaks of the souls of men and beasts together, as he does. But farther, what I contended for is evident from that place, in that the word spirit is there applied by our translators, to the souls of beasts, which your lordship, I think, does not rank amongst the immaterial, and consequently immortal spirits, though they have sense and spontaneous motion.

But you say, || If the soul be not of itself a free thinking substance, you do not see what foundation there is in nature for a day of judgment. Ans. Though the heathen world did not of old, nor to this day, see a foundation in nature for a day of judgment; yet in revelation, if that will satisfy your lordship, every one may see a foundation for a day of judgment, because God has positively declared it;

* 1st Answer. † *Æneid.* 4. 385. ‡ 1st Answer. || *Ibid.*

though God has not by that revelation taught us, what the substance of the soul is; nor has any where said, that the soul of itself is a free agent. Whatsoever any created substance is, it is not of itself, but is by the good pleasure of its Creator: whatever degrees of perfection it has, it has from the bountiful hand of its maker. For it is true in a natural, as well as a spiritual sense, what St. Paul says*, “Not that we are sufficient of ourselves to think any thing as of ourselves, but our sufficiency is of God.”

But your lordship, as I guess by your following words, would argue that a material substance cannot be a free agent; whereby I suppose you only mean, that you cannot see or conceive how a solid substance should begin, stop, or change its own motion. To which give me leave to answer, that when you can make it conceivable, how any created, finite, dependant substance can move itself, or alter or stop its own motion, which it must to be a free agent; I suppose you will find it no harder for God to bestow this power on a solid than an unsolid created substance. Tully, in the place above quoted†, could not conceive this power to be in any thing but what was from eternity; *Cum pateat igitur æternum id esse quod seipsum moveat, quis est qui hanc naturam animis esse tributam neget?* But though you cannot see how any created substance, solid or not solid, can be a free agent, (pardon me, my lord, if I put in both, till your lordship please to explain it of either, and show the manner how either of them can, of itself, move itself or any thing else) yet I do not think you will so far deny men to be free agents, from the difficulty there is to see how they are free agents, as to doubt whether there be foundation enough for a day of judgment.

It is not for me to judge how far your lordship’s speculations reach; but finding in myself nothing to be truer than what the wise Solomon tells me,‡ “As thou knowest not what is the way of the spirit, nor how the bones do grow in the womb of her that is with child; even so thou knowest not the works of God, who maketh all things:” I gratefully receive and rejoice in the light of revelation, which sets me at rest in many things, the manner whereof my poor reason can by no means make out to me: Omnipotency, I know, can do any thing that contains in it no contradiction: so that I readily believe whatever God has declared, though my reason find difficulties in it, which it cannot master. As in the present case, God having revealed that there shall be a day of judgment, I think that foundation enough to conclude men are free enough to be made answerable for their actions, and to receive according to what they have done; though how man is a free agent, surpasses my explication or comprehension.

In answer to the place I brought out of St. Luke||, your lordship asks,§ Whether from these words of our Saviour it follows, that a spirit is only an appearance? I answer, No; nor do I know who drew such an inference from them: but it follows, that in apparitions there is something that appears, and that which appears is not wholly im-

* 2 Cor. iii. 5. † Tusculan Quæst. L. i. c. 23. ‡ Eccles. xi. 5.
|| C. xxiv. v. 39. § 1st Answer.

whether any mere material being thinks or no; it being impossible for us, by the contemplation of our own ideas, without revelation, to discover, whether omnipotency has not given to some systems of matter fitly disposed a power to perceive and think, or else joined and fixed to matter so disposed a thinking immaterial substance: it being, in respect of our notions, not much more remote from our comprehension to conceive, that God can, if he pleases, superadd to matter a faculty of thinking, than that he should superadd to it another substance, with a faculty of thinking; since we know not wherein thinking consists, nor to what sort of substances the Almighty has been pleased to give that power, which cannot be in any created being, but merely by the good pleasure and bounty of the Creator. For I see no contradiction in it, that the first eternal thinking being should, if he pleased, give to certain systems of created senseless matter, put together as he thinks fit, some degrees of sense, perception, and thought: though, as I think, I have proved, lib. iv. ch. 10. § 14. &c. it is no less than a contradiction to

material; and yet this was properly called πνεῦμα, and was often looked upon, by those who called it πνεῦμα in Greek, and now call it spirit in English, to be the ghost or soul of one departed; which I humbly conceive justifies my use of the word spirit, for a thinking voluntary agent, whether material or immaterial.

Your lordship says,* That I grant, that it cannot upon these principles be demonstrated, that the spiritual substance in us is immaterial; from whence you conclude, that then my grounds of certainty from ideas are plainly given up. This being a way of arguing that you often make use of, I have often had occasion to consider it, and cannot after all see the force of this argument. I acknowledge that this or that proposition cannot upon my principles be demonstrated; ergo, I grant this proposition to be false, that certainty consists in the perception of the agreement or disagreement of ideas. For that is my ground of certainty, and till that be given up, my grounds of certainty are not given up.

* 1st Answer.

suppose matter (which is evidently in its own nature void of sense and thought) should be that eternal first-thinking being. What certainty of knowledge can any one have that some perceptions, such as, *v. g.* pleasure and pain, should not be in some bodies themselves, after a certain manner modified and moved, as well as that they should be in an immaterial substance, upon the motion of the parts of body? Body, as far as we can conceive, being able only to strike and affect body; and motion, according to the utmost reach of our ideas, being able to produce nothing but motion: so that when we allow it to produce pleasure or pain, or the idea of a colour or sound, we are fain to quit our reason, go beyond our ideas, and attribute it wholly to the good pleasure of our Maker. For since we must allow he has annexed effects to motion, which we can no way conceive motion able to produce, what reason have we to conclude, that he could not order them as well to be produced in a subject we cannot conceive capable of them, as well as in a subject we cannot conceive the motion of matter can any way operate upon? I say not this, that I would any way lessen the belief of the soul's immateriality: I am not here speaking of probability, but knowledge; and I think not only, that it becomes the modesty of philosophy not to pronounce magisterially, where we want that evidence that can produce knowledge; but also, that it is of use to us to discern how far our knowledge does reach; for the state we are at present in, not being that of vision, we must, in many things, content ourselves with faith and probability; and in the present question, about the immateriality of the soul, if our faculties cannot arrive at demonstrative certainty, we need not think it strange. All the great ends of morality and religion are well enough secured, without philosophical proofs of the soul's immateriality; since it is evident, that he who made us at the beginning

to subsist here, sensible intelligent beings, and for several years continued us in such a state, can and will restore us to the like state of sensibility in another world, and make us capable there to receive the retribution he has designed to men, according to their doings in this life. And therefore it is not of such mighty necessity to determine one way or the other, as some, over-zealous for or against the immateriality of the soul, have been forward to make the world believe. Who, either on the one side, indulging too much their thoughts, immersed altogether in matter, can allow no existence to what is not material: or who, on the other side, finding not cogitation within the natural powers of matter, examined over and over again by the utmost attention of mind, have the confidence to conclude, that omnipotency itself cannot give perception and thought to a substance which has the modification of solidity. He that considers how hardly sensation is, in our thoughts, reconcileable to extended matter; or existence to any thing that has no existence at all; will confess that he is very far from certainly knowing what his soul is. It is a point which seems to me to be put out of the reach of our knowledge: and he who will give himself leave to consider freely, and look into the dark and intricate part of each hypothesis, will scarce find his reason able to determine him fixedly for or against the soul's materiality. Since on which side soever he views it, either as an unextended substance, or as a thinking extended matter; the difficulty to conceive either will, whilst either alone is in his thoughts, still drive him to the contrary side. An unfair way which some men take with themselves; who, because of the inconceivableness of something they find in one, throw themselves violently into the contrary hypothesis, though altogether as unintelligible to an unbiassed understanding. This serves not only to show the weakness and the scantiness of

our knowledge, but the insignificant triumph of such sort of arguments, which, drawn from our own views, may satisfy us that we can find no certainty on one side of the question; but do not at all thereby help us to truth by running into the opposite opinion, which, on examination, will be found clogged with equal difficulties. For what safety, what advantage to any one is it, for the avoiding the seeming absurdities, and to him unsurmountable rubs he meets with in one opinion, to take refuge in the contrary, which is built on something altogether as inexplicable, and as far remote from his comprehension? It is past controversy, that we have in us something that thinks; our very doubts about what it is confirm the certainty of its being, though we must content ourselves in the ignorance of what kind of being it is: and it is in vain to go about to be sceptical in this, as it is unreasonable in most other cases to be positive against the being of any thing, because we cannot comprehend its nature. For I would fain know what substance exists, that has not something in it which manifestly baffles our understandings. Other spirits, who see and know the nature and inward constitution of things, how much must they exceed us in knowledge? To which if we add larger comprehension, which enables them at one glance to see the connexion and agreement of very many ideas, and readily supplies to them the intermediate proofs, which we by single and slow steps, and long poring in the dark, hardly at last find out, and are often ready to forget one before we have hunted out another; we may guess at some part of the happiness of superior ranks of spirits, who have a quicker and more penetrating sight, as well as a larger field of knowledge. But to return to the argument in hand; our knowledge, I say, is not only limited to the paucity and imperfections of the ideas we have, and

which we employ it about, but even comes short of that too. But how far it reaches, let us now inquire.

§ 7. *How far our knowledge reaches.*

The affirmations or negations we make concerning the ideas we have, may, as I have before intimated in general, be reduced to these four sorts, viz. identity, co-existence, relation, and real existence. I shall examine how far our knowledge extends in each of these.

§ 8.—1. *Our knowledge of Identity and diversity, as far as our ideas.*

First, as to identity and diversity, in this way of agreement or disagreement of our ideas, our intuitive knowledge is as far extended as our ideas themselves; and there can be no idea in the mind, which it does not presently, by an intuitive knowledge, perceive to be what it is, and to be different from any other.

§ 9.—2. *Of co-existence a very little way.*

Secondly, as to the second sort, which is the agreement or disagreement of our ideas in co-existence; in this our knowledge is very short, though in this consists the greatest and most material part of our knowledge concerning substances. For our ideas of the species of substances being, as I have showed, nothing but certain collections of simple ideas united in one subject, and so co-existing together; v. g. our idea of flame is a body hot, luminous, and moving upward; of gold, a body heavy to a certain degree, yellow, malleable, and fusible: these, or some such complex ideas as these in men's minds, do these two names of the different substances, flame and gold, stand for. When we would know any thing farther concerning these, or any other sort of substances, what do we inquire, but what other qualities or power these substances have or have not? Which is nothing else but to know what other simple ideas do or do not co-exist with those that make up that complex idea.

§ 10. *Because the connexion between most simple ideas is unknown.*

This, how weighty and considerable a part soever of human science, is yet very narrow and scarce any at all. The reason whereof is, that the simple ideas, whereof our complex ideas of substances are made up, are, for the most part, such as carry with them, in their own nature, no visible necessary connexion or inconsistency with any other simple ideas, whose co-existence with them we would inform ourselves about.

§ 11. *Especially of secondary qualities.*

The ideas that our complex ones of substances are made up of, and about which our knowledge concerning substances is most employed, are those of their secondary qualities: which depending all (as has been shown) upon the primary qualities of their minute and insensible parts; or if not upon them, upon something yet more remote from our comprehension; it is impossible we should know which have a necessary union or inconsistency one with another: for not knowing the root they spring from, not knowing what size, figure, and texture of parts they are, on which depend, and from which result, those qualities which make our complex idea of gold; it is impossible we should know what other qualities result from, or are incompatible with, the same constitution of the insensible parts of gold, and so consequently must always co-exist with that complex idea we have of it, or else are inconsistent with it.

§ 12. *Because all connexion between any secondary and primary qualities is undiscoverable.*

Besides this ignorance of the primary qualities of the insensible parts of bodies, on which depend all their secondary qualities, there is yet another and more incurable part of ignorance, which sets us more remote from a certain knowledge of the co-existence or in-co-existence (if I may so say) of different ideas

in the same subject; and that is, that there is no discoverable connexion between any secondary quality and those primary qualities which it depends on.

§ 13.

That the size, figure, and motion of one body should cause a change in the size, figure and motion of another body, is not beyond our conception: the separation of the parts of one body upon the intrusion of another; and the change from rest to motion upon impulse; these and the like seem to have some connexion one with another. And if we knew these primary qualities of bodies, we might have reason to hope we might be able to know a great deal more of these operations of them one with another: but our minds not being able to discover any connexion betwixt these primary qualities of bodies and the sensations that are produced in us by them, we can never be able to establish certain and undoubted rules of the consequences or co-existence of any secondary qualities, though we could discover the size, figure, or motion of those invisible parts which immediately produce them. We are so far from knowing what figure, size, or motion of parts produce a yellow colour, a sweet taste, or a sharp sound, that we can by no means conceive how any size, figure, or motion of any particles, can possibly produce in us the idea of any colour, taste, or sound whatsoever; there is no conceivable connexion betwixt the one and the other.

§ 14.

In vain therefore shall we endeavour to discover by our ideas (the only true way of certain and universal knowledge) what other ideas are to be found constantly joined with that of our complex idea of any substance: since we neither know the real constitution of the minute parts on which their qualities do depend; nor, did we know them, could we discover any necessary connexion between them and any

of the secondary qualities ; which is necessary to be done before we can certainly know their necessary co-existence. So that let our complex idea of any species of substances be what it will, we can hardly, from the simple ideas contained in it, certainly determine the necessary co-existence of any other quality whatsoever. Our knowledge in all these inquiries reaches very little farther than our experience. Indeed, some few of the primary qualities have a necessary dependence and visible connexion one with another, as figure necessarily supposes extension : receiving or communicating motion by impulse, supposes solidity. But though these and perhaps some other of our ideas have, yet there are so few of them, that have a visible connexion one with another, that we can by intuition or demonstration discover the co-existence of very few of the qualities are to be found united in substances : and we are left only to the assistance of our senses, to make known to us what qualities they contain. For of all the qualities that are co-existent in any subject, without this dependence and evident connexion of their ideas one with another, we cannot know certainly any two to co-exist any farther than experience, by our senses, informs us. Thus though we see the yellow colour, and upon trial find the weight, malleableness, fusibility, and fixedness, that are united in a piece of gold ; yet because no one of these ideas has any evident dependence, or necessary connexion with the other, we cannot certainly know, that where any four of these are, the fifth will be there also, how highly probable soever it may be ; because the highest probability amounts not to certainty, without which there can be no true knowledge. For this co-existence can be no farther known than it is perceived ; and it cannot be perceived but either in particular subjects, by the observation of our senses, or in ge-

neral, by the necessary connexion of the ideas themselves.

§ 15. *Of repugnancy to co-exist, larger.*

As to the incompatibility or repugnancy to co-existence, we may know, that any subject may have of each sort of primary qualities but one particular at once; *v. g.* each particular extension, figure, number of parts, motion, excludes all other of each kind. The like also is certain of all sensible ideas peculiar to each sense; for whatever of each kind is present in any subject, excludes all other of that sort; *v. g.* no one subject can have two smells or two colours at the same time. To this perhaps will be said, Has not an opal, or the infusion of *lignum nephriticum*, two colours at the same time? To which I answer, that these bodies, to eyes differently placed, may at the same time afford different colours: but I take liberty also to say, that to eyes differently placed, it is different parts of the object that reflect the particles of light: and therefore it is not the same part of the object, and so not the very same subject, which at the same time appears both yellow and azure. For it is as impossible that the very same particle of any body should at the same time differently modify or reflect the rays of light, as that it should have two different figures and textures at the same time.

§ 16. *Of the co-existence of powers, a very little way.*

But as to the powers of substances to change the sensible qualities of other bodies, which make a great part of our inquiries about them, and is no inconsiderable branch of our knowledge; I doubt, as to these, whether our knowledge reaches much farther than our experience; or whether we can come to the discovery of most of these powers, and be certain that they are in any subject, by the connexion with any of those ideas which to us make its essence. Because the active and passive powers of bodies, and their ways of operating, consisting in a texture and motion

of parts, which we cannot by any means come to discover; it is but in very few cases, we can be able to perceive their dependence on, or repugnance to, any of those ideas which make our complex one of that sort of things. I have here instanced in the corpuscularian hypothesis, as that which is thought to go farthest in an intelligible explication of those qualities of bodies; and I fear the weakness of human understanding is scarce able to substitute another, which will afford us a fuller and clearer discovery of the necessary connexion and co-existence of the powers which are to be observed united in several sorts of them. This at least is certain, that which-ever hypothesis be clearest and truest, (for of that it is not my business to determine) our knowledge concerning corporeal substances will be very little advanced by any of them, till we are made to see what qualities and powers of bodies have a necessary connexion or repugnancy one with another; which in the present state of philosophy, I think, we know but to a very small degree: and I doubt whether, with those faculties we have, we shall ever be able to carry our general knowledge (I say not particular experience) in this part much farther. Experience is that which in this part we must depend on. And it were to be wished that it were more improved. We find the advantages some men's generous pains have this way brought to the stock of natural knowledge. And if others, especially the philosophers by fire, who pretend to it, had been so wary in their observations, and sincere in their reports, as those who call themselves philosophers ought to have been; our acquaintance with the bodies here about us, and our insight into their powers and operations, had been yet much greater.

§ 17. *Of spirits, yet narrower.*

If we are at a loss in respect of the powers and operations of bodies, I think it is easy to conclude,

we are much more in the dark in reference to the spirits; whereof we naturally have no ideas, but what we draw from that of our own, by reflecting on the operations of our own souls within us, as far as they can come within our observation. But how inconsiderable a rank the spirits that inhabit our bodies hold amongst those various and possibly innumerable kinds of nobler beings; and how far short they come of the endowments and perfections of cherubims and seraphims, and infinite sorts of spirits above us; is what by a transient hint, in another place, I have offered to my reader's consideration.

§ 18.—3. *Of other relations, it is not easy to say how far.*

As to the third sort of our knowledge, viz. the agreement or disagreement of any of our ideas in any other relation: this, as it is the largest field of our knowledge, so it is hard to determine how far it may extend: because the advances that are made in this part of knowledge, depending on our sagacity in finding intermediate ideas, that may show the relations and habitudes of ideas, whose co-existence is not considered, it is a hard matter to tell when we are at an end of such discoveries; and when reason has all the helps it is capable of, for the finding of proofs, or examining the agreement or disagreement of remote ideas. They that are ignorant of algebra cannot imagine the wonders in this kind are to be done by it: and what farther improvements and helps, advantageous to other parts of knowledge, the sagacious mind of man may yet find out, it is not easy to determine. This at least I believe, that the ideas of quantity are not those alone that are capable of demonstration and knowledge; and that other, and perhaps more useful parts of contemplation, would afford us certainty, if vices, passions, and domineering interest did not oppose or menace such endeavours.

Morality capable of demonstration.

The idea of a supreme being, infinite in power, goodness, and wisdom, whose workmanship we are, and on whom we depend; and the idea of ourselves, as understanding rational beings; being such as are clear in us, would, I suppose, if duly considered and pursued, afford such foundations of our duty and rules of action, as might place morality amongst the sciences capable of demonstration; wherein I doubt not but from self-evident propositions, by necessary consequences, as incontestible as those in mathematics, the measures of right and wrong might be made out to any one that will apply himself with the same indifferency and attention to the one, as he does to the other of these sciences. The relation of other modes may certainly be perceived, as well as those of number and extension: and I cannot see why they should not also be capable of demonstration, if due methods were thought on to examine or pursue their agreement or disagreement. Where there is no property, there is no injustice, is a proposition as certain as any demonstration in Euclid: for the idea of property being a right to any thing; and the idea to which the name injustice is given, being the invasion or violation of that right; it is evident, that these ideas being thus established, and these names annexed to them, I can as certainly know this proposition to be true, as that a triangle has three angles equal to two right ones. Again, "no government allows absolute liberty:" The idea of government being the establishment of society upon certain rules or laws which require conformity to them; and the idea of absolute liberty being for any one to do whatever he pleases; I am as capable of being certain of the truth of this proposition, as of any in the mathematics

§ 19. *Two things have made moral ideas thought incapable of demonstration: their complexedness, and want of sensible representations.*

That which in this respect has given the advantage to the ideas of quantity, and made them thought more capable of certainty and demonstration, is,

First, that they can be set down and represented by sensible marks, which have a greater and nearer correspondence with them than any words or sounds whatsoever. Diagrams drawn on paper are copies of the ideas in the mind, and not liable to the uncertainty that words carry in their signification. An angle, circle, or square, drawn in lines, lies open to the view, and cannot be mistaken: it remains unchangeable, and may at leisure be considered and examined, and the demonstration be revised, and all the parts of it may be gone over more than once without any danger of the least change in the ideas. This cannot be thus done in moral ideas; we have no sensible marks that resemble them, whereby we can set them down; we have nothing but words to express them by; which though, when written, they remain the same, yet the ideas they stand for may change in the same man; and it is very seldom that they are not different in different persons.

Secondly, another thing that makes the greater difficulty in ethics, is, that moral ideas are commonly more complex than those of the figures ordinarily considered in mathematics. From whence these two inconveniencies follow: First, that their names are of more uncertain signification, the precise collection of simple ideas they stand for not being so easily agreed on, and so the sign that is used for them in communication always, and in thinking often, does not steadily carry with it the same idea. Upon which the same disorder, confusion, and error follow, as would if a man, going to demonstrate something of an heptagon, should, in the diagram he took to do it, leave

out one of the angles, or by oversight make the figure with one angle more than the name ordinarily imported, or he intended it should, when at first he thought of his demonstration. This often happens, and is hardly avoidable in very complex moral ideas, where the same name being retained, one angle, *i. e.* one simple idea, is left out or put in the complex one, (still called by the same name) more at one time than another. Secondly, from the complexedness of these moral ideas, there follows another inconvenience, *viz.* that the mind cannot easily retain those precise combinations, so exactly and perfectly as is necessary in the examination of the habitudes and correspondencies, agreements or disagreements, of several of them one with another; especially where it is to be judged of by long deductions, and the intervention of several other complex ideas, to show the agreement or disagreement of two remote ones.

The great help against this which mathematicians find in diagrams and figures, which remain unalterable in their draughts, is very apparent, and the memory would often have great difficulty otherwise to retain them so exactly, whilst the mind went over the parts of them step by step, to examine their several correspondencies. And though in casting up a long sum either in addition, multiplication, or division, every part be only a progression of the mind, taking a view of its own ideas, and considering their agreement or disagreement; and the resolution of the question be nothing but the result of the whole, made up of such particulars, whereof the mind has a clear perception: yet without setting down the several parts by marks, whose precise significations are known, and by marks that last and remain in view when the memory had let them go, it would be almost impossible to carry so many different ideas in the mind, without confounding or letting slip some parts of the reckoning, and thereby making all our

reasonings about it useless. In which case, the cyphers or marks help not the mind at all to perceive the agreement of any two or more numbers, their equalities or proportions: that the mind has only by intuition of its own ideas of the numbers themselves. But the numerical characters are helps to the memory, to record and retain the several ideas about which the demonstration is made, whereby a man may know how far his intuitive knowledge, in surveying several of the particulars, has proceeded; that so he may without confusion go on to what is yet unknown, and at last have in one view before him the result of all his perceptions and reasonings.

§ 20. *Remedies of those difficulties.*

One part of these disadvantages in moral ideas, which has made them be thought not capable of demonstration, may in a good measure be remedied by definitions, setting down that collection of simple ideas, which every term shall stand for, and then using the terms steadily and constantly for that precise collection. And what methods algebra, or something of that kind, may hereafter suggest, to remove the other difficulties, it is not easy to foretel. Confident I am, that if men would, in the same method, and with the same indifferency, search after moral, as they do mathematical truths, they would find them have a stronger connexion one with another, and a more necessary consequence from our clear and distinct ideas, and to come nearer perfect demonstration than is commonly imagined. But much of this is not to be expected, whilst the desire of esteem, riches, or power, makes men espouse the well-endowed opinions in fashion, and then seek arguments either to make good their beauty, or varnish over and cover their deformity: nothing being so beautiful to the eye, as truth is to the mind: nothing so deformed and irreconcilable to the understanding as a lye. For though many a man can with

satisfaction enough own a no very handsome wife in his bosom; yet who is bold enough openly to avow, that he has espoused a falsehood, and received into his breast so ugly a thing as a lye? Whilst the parties of men cram their tenets down all men's throats, whom they can get into their power, without permitting them to examine their truth or falsehood, and will not let truth have fair play in the world, nor men the liberty to search after it; what improvements can be expected of this kind? What greater light can be hoped for in the moral sciences? The subject part of mankind in most places might, instead thereof, with Egyptian bondage expect Egyptian darkness, were not the candle of the Lord set up by himself in men's minds, which it is impossible for the breath or power of man wholly to extinguish.

§ 21.—4. *Of real existence: we have an intuitive knowledge of our own; demonstrative, of God's; sensitive, of some few other things.*

As to the fourth sort of our knowledge, viz. of the real actual existence of things, we have an intuitive knowledge of our own existence; and a demonstrative knowledge of the existence of a God; of the existence of any thing else, we have no other but a sensitive knowledge, which extends not beyond the objects present to our senses.

§ 22. *Our ignorance great.*

Our knowledge being so narrow, as I have showed; it will perhaps give us some light into the present state of our minds, if we look a little into the dark side, and take a view of our ignorance: which, being infinitely larger than our knowledge, may serve much to the quieting of disputes, and improvement of useful knowledge; if discovering how far we have clear and distinct ideas, we confine our thoughts within the contemplation of those things that are within the reach of our understandings, and launch not out

into that abyss of darkness (where we have not eyes to see, nor faculties to perceive any thing) out of a presumption, that nothing is beyond our comprehension. But to be satisfied of the folly of such a conceit, we need not go far. He that knows any thing, knows this in the first place, that he need not seek long for instances of his ignorance. The meanest and most obvious things that come in our way, have dark sides, that the quickest sight cannot penetrate into. The clearest and most enlarged understandings of thinking men find themselves puzzled, and at a loss, in every particle of matter. We shall the less wonder to find it so, when we consider the causes of our ignorance; which, from what has been said, I suppose, will be found to be these three:

First, want of ideas.

Secondly, want of a discoverable connexion between the ideas we have.

Thirdly, want of tracing and examining our ideas.

§ 23. *First, one cause of it want of ideas, either such as we have no conception of, or such as particularly we have not.*

First, there are some things, and those not a few, that we are ignorant of, for want of ideas.

First; all the simple ideas we have, are confined (as I have shown) to those we receive from corporeal objects by sensation, and from the operations of our own minds as the objects of reflection. But how much these few and narrow inlets are disproportionate to the vast whole extent of all beings, will not be hard to persuade those, who are not so foolish as to think their span the measure of all things. What other simple ideas it is possible the creatures in other parts of the universe may have, by the assistance of senses and faculties more, or perfecter, than we have, or different from ours, it is not for us to determine. But to say, or think there are no such, because we conceive nothing of them, is no better an argument,

than if a blind man should be positive in it, that there was no such thing as sight and colours, because he had no manner of idea of any such thing, nor could by any means frame to himself any notions about seeing. The ignorance and darkness that is in us, no more hinders nor confines the knowledge that is in others, than the blindness of a mole is an argument against the quicksightedness of an eagle. He that will consider the infinite power, wisdom, and goodness of the Creator of all things, will find reason to think it was not all laid out upon so inconsiderable, mean, and impotent a creature as he will find man to be; who, in all probability, is one of the lowest of all intellectual beings. What faculties therefore other species of creatures have, to penetrate into the nature and inmost constitutions of things; what ideas they may receive of them, far different from ours; we know not. This we know, and certainly find, that we want several other views of them, besides those we have, to make discoveries of them more perfect. And we may be convinced that the ideas we can attain to by our faculties, are very disproportionate to things themselves, when a positive, clear, distinct one of substance itself, which is the foundation of all the rest, is concealed from us. But want of ideas of this kind being a part, as well as cause of our ignorance, cannot be described. Only this, I think, I may confidently say of it, that the intellectual and sensible world are in this perfectly alike; that that part, which we see of either of them, holds no proportion with what we see not; and whatsoever we can reach with our eyes, or our thoughts, of either of them, is but a point, almost nothing in comparison with the rest.

§ 24. *Because of their remoteness; or,*

Secondly, another great cause of ignorance is the want of ideas we are capable of. As the want of ideas, which our faculties are not able to give us,

shuts us wholly from those views of things, which it is reasonable to think other beings, perfecter than we, have, of which we know nothing; so the want of ideas I now speak of keeps us in ignorance of things we conceive capable of being known to us. Bulk, figure, and motion, we have ideas of. But though we are not without ideas of these primary qualities of bodies in general, yet not knowing what is the particular bulk, figure, and motion, of the greatest part of the bodies of the universe; we are ignorant of the several powers, efficacies, and ways of operation, whereby the effects, which we daily see, are produced. These are hid from us in some things, by being too remote; and in others, by being too minute. When we consider the vast distance of the known and visible parts of the world, and the reasons we have to think, that what lies within our ken is but a small part of the universe, we shall then discover an huge abyss of ignorance. What are the particular fabrics, of the great masses of matter, which make up the whole stupendous frame of corporeal beings; how far they are extended, what is their motion, and how continued or communicated, and what influence they have one upon another, are contemplations that at first glimpse our thoughts lose themselves in. If we narrow our contemplations, and confine our thoughts to this little canton, I mean this system of our sun; and the grosser masses of matter, that visibly move about it; what several sorts of vegetables, animals, and intellectual corporeal beings, infinitely different from those of our little spot of earth, may there probably be in the other planets, to the knowledge of which, even of their outward figures and parts, we can no way attain, whilst we are confined to this earth; there being no natural means, either by sensation or reflection, to convey their certain ideas into our minds? They are out of the reach of those inlets of all our knowledge: and what sorts of furniture

and inhabitants those mansions contain in them, we cannot so much as guess, much less have clear and distinct ideas of them.

§ 25. *Because of their minuteness.*

If a great, nay, far the greatest part of the several ranks of bodies in the universe, escape our notice by their remoteness, there are others that are no less concealed from us by their minuteness. These insensible corpuscles being the active parts of matter, and the great instruments of nature, on which depend not only all their secondary qualities, but also most of their natural operations; our want of precise distinct ideas of their primary qualities, keeps us in an incurable ignorance of what we desire to know about them. I doubt not but if we could discover the figure, size, texture, and motion of the minute constituent parts of any two bodies, we should know without trial several of their operations one upon another, as we do now the properties of a square or a triangle. Did we know the mechanical affections of the particles of rhubarb, hemlock, opium, and a man; as a watch-maker does those of a watch, whereby it performs its operations, and of a file which by rubbing on them will alter the figure of any of the wheels; we should be able to tell before-hand, that rhubarb will purge, hemlock kill, and opium make a man sleep; as well as a watch-maker can, that a little piece of paper laid on the balance will keep the watch from going, till it be removed; or that, some small part of it being rubbed by a file, the machine would quite lose its motion, and the watch go no more. The dissolving of silver in aqua fortis, and gold in aqua regia, and not vice versa, would be then perhaps no more difficult to know, than it is, to a smith to understand why the turning of one key will open a lock, and not the turning of another. But whilst we are destitute of senses acute enough to discover the minute particles of bodies, and to give

us ideas of their mechanical affections, we must be content to be ignorant of their properties and ways of operation ; nor can we be assured about them any farther, than some few trials we make are able to reach. But whether they will succeed again another time, we cannot be certain. This hinders our certain knowledge of universal truths concerning natural bodies ; and our reason carries us herein very little beyond particular matter of fact.

§ 26. *Hence no science of bodies.*

And therefore I am apt to doubt, that how far soever human industry may advance useful and experimental philosophy in physical things, scientific will still be out of our reach ; because we want perfect and adequate ideas of those very bodies which are nearest to us, and most under our command. Those which we have ranked into classes under names, and we think ourselves best acquainted with, we have but very imperfect and incomplete ideas of. Distinct ideas of the several sorts of bodies that fall under the examination of our senses perhaps we may have : but adequate ideas, I suspect, we have not of any one amongst them. And though the former of these will serve us for common use and discourse, yet whilst we want the latter, we are not capable of scientific knowledge ; nor shall ever be able to discover general, instructive, unquestionable truths concerning them. Certainty and demonstration are things we must not, in these matters, pretend to. By the colour, figure, taste, and smell, and other sensible qualities, we have as clear and distinct ideas of sage and hemlock, as we have of a circle and a triangle : but having no ideas of the particular primary qualities of the minute parts of either of these plants, nor of other bodies which we would apply them to, we cannot tell what effects they will produce ; nor when we see those effects, can we so much as guess, much less know, their manner of production. Thus having

no ideas of the particular mechanical affections of the minute parts of bodies that are within our view and reach, we are ignorant of their constitutions, powers, and operations: and of bodies more remote we are yet more ignorant, not knowing so much as their very outward shapes, or the sensible and grosser parts of their constitutions.

§ 27. *Much less of spirits.*

This, at first, will show us how disproportionate our knowledge is to the whole extent even of material beings; to which if we add the consideration of that infinite number of spirits that may be and probably are, which are yet more remote from our knowledge, whereof we have no cognizance, nor can frame to ourselves any distinct ideas of their several ranks and sorts, we shall find this cause of ignorance conceal from us, in an impenetrable obscurity, almost the whole intellectual world; a greater certainly, and more beautiful world than the material. For bating some very few, and those, if I may so call them, superficial ideas of spirit, which by reflection we get of our own, and from thence the best we can collect of the father of all spirits, the eternal independent author of them and us and all things; we have no certain information, so much as of the existence of other spirits, but by revelation. Angels of all sorts are naturally beyond our discovery: and all those intelligences whereof it is likely there are more orders than of corporeal substances, are things whereof our natural faculties give us no certain account at all. That there are minds and thinking beings in other men as well as himself, every man has a reason, from their words and actions, to be satisfied: and the knowledge of his own mind cannot suffer a man, that considers, to be ignorant, that there is a God. But that there are degrees of spiritual beings between us and the great God, who is there that by his own search and ability can come to know? Much less have we dis-

tinct ideas of their different natures, conditions, states, powers, and several constitutions wherein they agree or differ from one another, and from us. And therefore in what concerns their different species and properties, we are under an absolute ignorance.

§ 28. *Secondly, want of a discoverable connexion between ideas we have.*

Secondly, what a small part of the substantial beings that are in the universe, the want of ideas leaves open to our knowledge, we have seen. In the next place, another cause of ignorance, of no less moment, is a want of a discoverable connexion between those ideas we have. For wherever we want that, we are utterly incapable of universal and certain knowledge; and are, in the former case, left only to observation and experiment: which, how narrow and confined it is, how far from general knowledge, we need not be told. I shall give some few instances of this cause of our ignorance, and so leave it. It is evident that the bulk, figure, and motion of several bodies about us, produce in us several sensations, as of colours, sounds, tastes, smells, pleasure and pain, &c. These mechanical affections of bodies having no affinity at all with those ideas they produce in us (there being no conceivable connexion between any impulse of any sort of body and any perception of a colour or smell, which we find in our minds) we can have no distinct knowledge of such operations beyond our experience; and can reason no otherways about them, than as effects produced by the appointment of an infinitely wise agent, which perfectly surpass our comprehensions. As the ideas of sensible secondary qualities which we have in our minds, can by us be no way deduced from bodily causes, nor any correspondence or connexion be found between them and those primary qualities which (experience shows us) produce them in us; so on the other side, the operation of our minds upon our bodies is as inconceivable. How

any thought should produce a motion in body is as remote from the nature of our ideas, as how any body should produce any thought in the mind. That it is so, if experience did not convince us, the consideration of the things themselves would never be able in the least to discover to us. These, and the like, though they have a constant and regular connexion; in the ordinary course of things; yet that connexion being not discoverable in the ideas themselves, which appearing to have no necessary dependence one on another, we can attribute their connexion to nothing else but the arbitrary determination of that all-wise agent, who has made them to be, and to operate as they do, in a way wholly above our weak understandings to conceive.

§ 29. *Instances.*

In some of our ideas there are certain relations, habitudes, and connexions, so visibly included in the nature of the ideas themselves, that we cannot conceive them separable from them by any power whatsoever. And in these only we are capable of certain and universal knowledge. Thus the idea of a right-lined triangle necessarily carries with it an equality of its angles to two right ones. Nor can we conceive this relation, this connexion of these two ideas, to be possibly mutable, or to depend on any arbitrary power, which of choice made it thus, or could make it otherwise. But the coherence and continuity of the parts of matter; the production of sensation in us of colours and sounds, &c. by impulse and motion; nay, the original rules and communication of motion being such, wherein we can discover no natural connexion with any ideas we have; we cannot but ascribe them to the arbitrary will and good pleasure of the wise architect. I need not, I think, here mention the resurrection of the dead, the future state of this globe of earth, and such other things, which are by every one acknowledged to de-

pend wholly on the determination of a free agent. The things that, as far as our observation reaches, we constantly find to proceed regularly, we may conclude do act by a law set them; but yet by a law, that we know not: whereby, though causes work steadily, and effects constantly flow from them, yet their connexions and dependencies being not discoverable in our ideas, we can have but an experimental knowledge of them. From all which it is easy to perceive what a darkness we are involved in, how little it is of being, and the things that are, that we are capable to know. And therefore we shall do no injury to our knowledge, when we modestly think with ourselves, that we are so far from being able to comprehend the whole nature of the universe, and all the things contained in it, that we are not capable of a philosophical knowledge of the bodies that are about us, and make a part of us: concerning their secondary qualities, powers, and operations, we can have no universal certainty. Several effects come every day within the notice of our senses, of which we have so far sensitive knowledge; but the causes, manner, and certainty of their production, for the two foregoing reasons, we must be content to be very ignorant of. In these we can go no farther than particular experience informs us of matter of fact, and by analogy to guess what effects the like bodies are, upon other trials, like to produce. But as to a perfect science of natural bodies (not to mention spiritual beings) we are, I think, so far from being capable of any such thing, that I conclude it lost labour to seek after it.

§ 30. *Thirdly, want of tracing our ideas.*

Thirdly, where we have adequate ideas, and where there is a certain and discoverable connexion between them, yet we are often ignorant, for want of tracing those ideas which we have, or may have; and for want of finding out those intermediate ideas, which

may show us what habitude of agreement or disagreement they have one with another. And thus many are ignorant of mathematical truths, not out of any imperfection of their faculties, or uncertainty in the things themselves; but for want of application in acquiring, examining, and by due ways comparing those ideas. That which has most contributed to hinder the due tracing of our ideas, and finding out their relations, and agreements or disagreements one with another, has been, I suppose, the ill use of words. It is impossible that men should ever truly seek, or certainly discover the agreement or disagreement of ideas themselves, whilst their thoughts flutter about, or stick only in sounds of doubtful and uncertain significations. Mathematicians abstracting their thoughts from names, and accustoming themselves to set before their minds the ideas themselves that they would consider, and not sounds instead of them, have avoided thereby a great part of that perplexity, puddering and confusion, which has so much hindered men's progress in other parts of knowledge. For whilst they stick in words of undetermined and uncertain signification, they are unable to distinguish true from false, certain from probable, consistent from inconsistent, in their own opinions. This having been the fate or misfortune of a great part of men of letters, the increase brought into the stock of real knowledge, has been very little, in proportion to the schools, disputes, and writings, the world has been filled with; whilst students being lost in the great wood of words, knew not whereabouts they were, how far their discoveries were advanced, or what was wanting in their own or the general stock of knowledge. Had men, in the discoveries of the material, done as they have in those of the intellectual world, involved all in the obscurity of uncertain and doubtful ways of talking, volumes writ of navigation and voyages, theories and stories of zones and tides, multiplied and disputed;

may, ships built, and fleets sent out, would never have taught us the way beyond the line; and the Antipodes would be still as much unknown, as when it was declared heresy to hold there were any. But having spoken sufficiently of words, and the ill or careless use that is commonly made of them, I shall not say any thing more of it here.

§ 31. *Extent in respect to universality.*

Hitherto we have examined the extent of our knowledge in respect of the several sorts of beings that are. There is another extent of it, in respect of universality, which will also deserve to be considered; and in this regard, our knowledge follows the nature of our ideas. If the ideas are abstract, whose agreement or disagreement we perceive, our knowledge is universal. For what is known of such general ideas, will be true of every particular thing in whom that essence, *i. e.* that abstract idea is to be found; and what is once known of such ideas, will be perpetually and for ever true. So that as to all general knowledge, we must search and find it only in our minds, and it is only the examining of our own ideas, that furnisheth us with that. Truths belonging to essences of things, (that is, to abstract ideas) are eternal, and are to be found out by the contemplation only of those essences: as the existences of things are to be known only from experience. But having more to say of this in the chapters where I shall speak of general and real knowledge, this may here suffice as to the universality of our knowledge in general.

CHAP. IV.

OF THE REALITY OF KNOWLEDGE.

§ 1. *Objection. Knowledge placed in ideas may be all bare vision.*

I DOUBT not but my reader by this time may be apt to think, that I have been all this while only building a castle in the air ; and be ready to say to me, “ To what purpose all this stir ? Knowledge, say you, is only the perception of the agreement or disagreement of our own ideas : but who knows what those ideas may be ? Is there any thing so extravagant, as the imaginations of men’s brains ? Where is the head that has no chimeras in it ? Or if there be a sober and a wise man, what difference will there be, by your rules, between his knowledge and that of the most extravagant fancy in the world ? They both have their ideas, and perceive their agreement and disagreement one with another. If there be any difference between them, the advantage will be on the warm-headed man’s side, as having the more ideas, and the more lively : and so, by your rules, he will be the more knowing. If it be true, that all knowledge lies only in the perception of the agreement or disagreement of our own ideas, the visions of an enthusiast, and the reasonings of a sober man, will be equally certain. It is no matter how things are ; so a man observe but the agreement of his own imaginations, and talk conformably, it is all truth, all certainty. Such castles in the air will be as strong holds of truth, as the demonstrations of

“ Euclid. That an harpy is not a centaur is by this way as certain knowledge, and as much a truth, as that a square is not a circle.

“ But of what use is all this fine knowledge of men’s own imaginations, to a man that inquires after the reality of things? It matters not what men’s fancies are, it is the knowledge of things that is only to be prized; it is this alone gives a value to our reasonings, and preference to one man’s knowledge over another’s, that it is of things as they really are, and not of dreams and fancies.”

§ 2. *Answ. Not so, where ideas agree with things.*

To which I answer, that if our knowledge of our ideas, terminate in them, and reach no farther, where there is something farther intended, our most serious thoughts will be of little more use than the reveries of a crazy brain; and the truths built thereon of no more weight, than the discourse of a man, who sees things clearly in a dream, and with great assurance utters them. But, I hope, before I have done, to make it evident, that this way of certainty, by the knowledge of our own ideas, goes a little farther than bare imagination: and I believe it will appear, that all the certainty of general truths a man has, lies in nothing else.

§ 3.

It is evident the mind knows not things immediately, but only by the intervention of the ideas it has of them. Our knowledge therefore is real, only so far as there is a conformity between our ideas and the reality of things. But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves? This, though it seems not to want difficulty, yet, I think, there be two sorts of ideas, that, we may be assured, agree with things.

§ 4. *As 1. All simple ideas do.*

First, the first are simple ideas, which since the mind, as has been showed, can by no means make to itself, must necessarily be the product of things operating on the mind in a natural way, and producing therein those perceptions which by the wisdom and will of our maker they are ordained and adapted to. From whence it follows, that simple ideas are not fictions of our fancies, but the natural and regular productions of things without us, really operating upon us, and so carry with them all the conformity which is intended, or which our state requires: for they represent to us things under those appearances which they are fitted to produce in us, whereby we are enabled to distinguish the sorts of particular substances, to discern the states they are in, and so to take them for our necessities, and to apply them to our uses. Thus the idea of whiteness, or bitterness, as it is in the mind, exactly answering that power which is in any body to produce it there, has all the real conformity it can, or ought to have, with things without us. And this conformity between our simple ideas, and the existence of things, is sufficient for real knowledge.

§ 5.—2. *All complex ideas, except of substances.*

Secondly, all our complex ideas, except those of substances, being archtypes of the mind's own making, not intended to be the copies of any thing, nor referred to the existence of any thing, as to their originals; cannot want any conformity necessary to real knowledge. For that which is not designed to represent any thing but itself, can never be capable of a wrong representation, nor mislead us from the true apprehension of any thing, by its dislikeness to it; and such, excepting those of substances, are all our complex ideas: which, as I have showed in another place, are combinations of ideas, which the mind, by its free choice, puts together, without considering any

connexion they have in nature. And hence it is, that in all these sorts the ideas themselves are considered as the archetypes, and things no otherwise regarded, but as they are conformable to them. So that we cannot but be infallibly certain, that all the knowledge we attain concerning these ideas is real; and reaches things themselves; because in all our thoughts, reasonings, and discourses of this kind, we intend things no farther than as they are conformable to our ideas. So that in these we cannot miss of a certain and undoubted reality.

§ 6. *Hence the reality of mathematical knowledge.*

I doubt not but it will be easily granted, that the knowledge we have of mathematical truths, is not only certain, but real knowledge; and not the bare empty vision of vain insignificant chimeras of the brain: and yet, if we will consider, we shall find that it is only of our own ideas. The mathematician considers the truth and properties belonging to a rectangle, or circle, only as they are in idea in his own mind. For it is possible he never found either of them existing mathematically, *i. e.* precisely true, in his life. But yet the knowledge he has of any truths or properties belonging to a circle, or any other mathematical figure, are nevertheless true and certain, even of real things existing; because real things are no farther concerned, nor intended to be meant by any such propositions, than as things really agree to those archetypes in his mind. Is it true of the idea of a triangle, that its three angles are equal to two right ones? It is true also of a triangle, wherever it really exists. Whatever other figure exists, that is not exactly answerable to the idea of a triangle in his mind, is not at all concerned in that proposition: and therefore he is certain all his knowledge concerning such ideas is real knowledge; because intending things no farther than they agree with those his ideas, he

is sure what he knows concerning those figures, when they have barely an ideal existence in his mind, will hold true of them also, when they have real existence in matter; his consideration being barely of those figures, which are the same, wherever or however they exist.

§ 7. *And of moral.*

And hence it follows that moral knowledge is as capable of real certainty, as mathematics. For certainty being but the perception of the agreement or disagreement of our ideas; and demonstration nothing but the perception of such agreement, by the intervention of other ideas, or mediums; our moral ideas, as well as mathematical, being archetypes themselves, and so adequate and complete ideas; all the agreement or disagreement, which we shall find in them, will produce real knowledge, as well as in mathematical figures.

§ 8. *Existence not required to make it real.*

For the attaining of knowledge and certainty, it is requisite that we have determined ideas; and, to make our knowledge real, it is requisite that the ideas answer their archetypes. Nor let it be wondered, that I place the certainty of our knowledge in the consideration of our ideas, with so little care and regard (as it may seem) to the real existence of things; since most of those discourses, which take up the thoughts, and engage the disputes of those who pretend to make it their business to inquire after truth and certainty, will, I presume, upon examination be found to be general propositions, and notions in which existence is not at all concerned. All the discourses of the mathematicians about the squaring of a circle, conic sections, or any other part of mathematics, concern not the existence of any of those figures; but their demonstrations, which depend on their ideas, are the same, whether there be any square or circle existing in the world, or no. In the same manner

the truth and certainty of moral discourses abstracts from the lives of men, and the existence of those virtues in the world whereof they treat. Nor are Tully's offices less true, because there is nobody in the world that exactly practises his rules, and lives up to that pattern of a virtuous man which he has given us, and which existed no where, when he writ, but in idea. If it be true in speculation, *i. e.* in idea, that murder deserves death, it will also be true in reality of any action that exists conformable to that idea of murder. As for other actions, the truth of that proposition concerns them not. And thus it is of all other species of things, which have no other essences but those ideas, which are in the minds of men.

§ 9. *Nor will it be less true or certain, because moral ideas are of our own making and naming.*

But it will here be said, that if moral knowledge be placed in the contemplation of our own moral ideas, and those, as other modes, be of our own making, what strange notions will there be of justice and temperance? What confusion of virtues and vices, if every one may make what ideas of them he pleases? No confusion or disorder in the things themselves, nor the reasonings about them; no more than (in mathematics) there would be a disturbance in the demonstration, or a change in the properties of figures, and their relations one to another, if a man should make a triangle with four corners, or a trapezium with four right angles: that is, in plain English, change the names of the figures, and call that by one name, which mathematicians call ordinarily by another. For let a man make to himself the idea of a figure with three angles, whereof one is a right one, and call it, if he please, equilaterum or trapezium, or any thing else, the properties of and demonstrations about that idea will be the same, as if he called it a rectangular triangle. I confess the change of the name, by the impropriety of speech, will at first dis-

turb him, who knows not what idea it stands for; but as soon as the figure is drawn, the consequences and demonstration are plain and clear. Just the same is it in moral knowledge, let a man have the idea of taking from others, without their consent, what their honest industry has possessed them of, and call this justice, if he please. He that takes the name here without the idea put to it, will be mistaken, by joining another idea of his own to that name: but strip the idea of that name, or take it such as it is in the speaker's mind, and the same things will agree to it, as if you called it injustice. Indeed wrong names in moral discourses breed usually more disorder, because they are not so easily rectified as in mathematics, where the figure once drawn and seen, makes the name useless and of no force. For what need of a sign, when the thing signified is present and in view? But in moral names that cannot be so easily and shortly done, because of the many decompositions that go to the making up the complex ideas of those modes. But yet for all this, miscalling of any of those ideas, contrary to the usual signification of the words of that language, hinders not but that we may have certain and demonstrative knowledge of their several agreements and disagreements, if we will carefully, as in mathematics, keep to the same precise ideas, and trace them in their several relations one to another, without being led away by their names. If we but separate the idea under consideration from the sign that stands for it, our knowledge goes equally on in the discovery of real truth and certainty, whatever sounds we make use of.

§ 10. *Misnaming disturbs not the certainty of the knowledge.*

One thing more we are to take notice of, that where God, or any other law-maker, hath defined any moral names, there they have made the essence of that species to which that name belongs; and

there it is not safe to apply or use them otherwise : but in other cases it is bare impropriety of speech to apply them contrary to the common usage of the country. But yet even this too disturbs not the certainty of that knowledge, which is still to be had by a due contemplation, and comparing of those even nick-named ideas.

§ 11. *Ideas of substances have their archetypes without us.*

Thirdly, there is another sort of complex ideas, which being referred to archetypes without us, may differ from them, and so our knowledge about them may come short of being real. Such are our ideas of substances, which consisting of a collection of simple ideas, supposed taken from the works of nature, may yet vary from them, by having more or different ideas united in them, than are to be found united in the things themselves. From whence it comes to pass, that they may, and often do, fail of being exactly conformable to things themselves.

§ 12. *So far as they agree, with those, so far our knowledge concerning them is real.*

I say then, that to have ideas of substances, which, by being conformable to things, may afford us real knowledge, it is not enough, as in modes, to put together such ideas as have no inconsistency, though they did never before so exist ; *v. g.* the ideas of sacrilege or perjury, &c. were as real and true ideas before, as after the existence of any such fact. But our ideas of substances being supposed copies, and referred to archetypes without us, must still be taken from something that does or has existed ; they must not consist of ideas put together at the pleasure of our thoughts, without any real pattern they were taken from, though we can perceive no inconsistency in such a combination. The reason whereof is, because we knowing not what real constitution it is of substances, whereon our simple ideas depend, and

which really is the cause of the strict union of some of them one with another, and the exclusion of others; there are very few of them, that we can be sure are, or are not, inconsistent in nature, any farther than experience and sensible observation reach. Herein therefore is founded the reality of our knowledge concerning substances, that all our complex ideas of them must be such, and such only, as are made up of such simple ones, as have been discovered to co-exist in nature. And our ideas being thus true: though not, perhaps, very exact copies, are yet the subjects of real (as far as we have any) knowledge of them. Which (as has been already shown) will not be found to reach very far: but so far as it does, it will still be real knowledge. Whatever ideas we have, the agreement we find they have with others, will still be knowledge. If those ideas be abstract, it will be general knowledge. But, to make it real concerning substances, the ideas must be taken from the real existence of things. Whatever simple ideas have been found to co-exist in any substance, these we may with confidence join together again, and so make abstract ideas of substances. For whatever have once had an union in nature, may be united again.

§ 13. *In our inquiries about substances, we must consider ideas, and not confine our thoughts to names, or species supposed set out by names.*

This, if we rightly consider, and confine not our thoughts and abstract ideas to names, as if there were, or could be no other sorts of things than what known names had already determined, and as it were set out; we should think of things with greater freedom and less confusion than perhaps we do. It would possibly be thought a bold paradox, if not a very dangerous falsehood, if I should say, that some changelings, who have lived forty years together without any appearance of reason, are something be-

tween a man and a beast : which prejudice is founded upon nothing else but a false supposition, that these two names, man and beast, stand for distinct species so set out by real essences, that there can come no other species between them : whereas if we will abstract from those names, and the supposition of such specific essences made by nature, wherein all things of the same denominations did exactly and equally partake ; if we would not fancy that there were a certain number of these essences, wherein all things, as in moulds, were cast and formed ; we should find that the idea of the shape, motion, and life of a man without reason, is as much a distinct idea, and makes as much a distinct sort of things from man and beast, as the idea of the shape of an ass with reason would be different from either that of man or beast, and be a species of an animal between, or distinct from both.

§ 14. *Objection against a changeling being something between a man and beast, answered.*

Here every body will be ready to ask, If changelings may be supposed something between man and beast, pray what are they ? I answer, changelings, which is as good a word to signify something different from the signification of man or beast, as the names man and beast are to have significations different one from the other. This, well considered, would resolve this matter, and show my meaning without any more ado. But I am not so unacquainted with the zeal of some men, which enables them to spin consequences, and to see religion threatened whenever any one ventures to quit their forms of speaking ; as not to foresee what names such a proposition as this is like to be charged with : and without doubt it will be asked, If changelings are something between man and beast, what will become of them in the other world ? To which I answer, 1. It concerns me not to know or inquire. To their own

master they stand or fall. It will make their state neither better nor worse, whether we determine any thing of it or no. They are in the hands of a faithful creator and a bountiful father, who disposes not of his creatures according to our narrow thoughts or opinions, nor distinguishes them according to names and species of our contrivance. And we that know so little of this present world we are in, may, I think, content ourselves without being peremptory in defining the different states, which creatures shall come into when they go off this stage. It may suffice us, that he hath made known to all those, who are capable of instruction, discoursing, and reasoning, that they shall come to an account, and receive according to what they have done in this body.

§ 15.

But, secondly, I answer, the force of these men's question (*viz.* will you deprive changelings of a future state?) is founded on one of these two suppositions, which are both false. The first is, that all things that have the outward shape and appearance of a man must necessarily be designed to an immortal future being after this life: or, secondly, that whatever is of human birth must be so. Take away these imaginations, and such questions will be groundless and ridiculous. I desire then those who think there is no more but an accidental difference between themselves and changelings, the essence in both being exactly the same, to consider whether they can imagine immortality annexed to any outward shape of the body? the very proposing it, is, I suppose, enough to make them disown it. No one yet, that ever I heard of, how much soever immersed in matter, allowed that excellency to any figure of the gross sensible outward parts, as to affirm eternal life due to it, or a necessary consequence of it; or that any mass of matter should, after its dissolution here, be again restored hereafter to an everlasting state of sense,

perception, and knowledge, only because it was moulded into this or that figure, and had such a particular frame of its visible parts. Such an opinion as this, placing immortality in a certain superficial figure, turns out of doors all consideration of soul or spirit, upon whose account alone some corporeal beings have hitherto been concluded immortal, and others not. This is to attribute more to the outside than inside of things; and to place the excellency of a man more in the external shape of his body, than internal perfections of his soul: which is but little better than to annex the great and inestimable advantage of immortality and life everlasting, which he has above other material beings, to annex it, I say, to the cut of his beard, or the fashion of his coat. For this or that outward mark of our bodies no more carries with it the hope of an eternal duration, than the fashion of a man's suit gives him reasonable grounds to imagine it will never wear out, or that it will make him immortal. It will perhaps be said, that nobody thinks that the shape makes any thing immortal, but it is the shape is the sign of a rational soul within, which is immortal. I wonder who made it the sign of any such thing: for barely saying it, will not make it so. It would require some proofs to persuade one of it. No figure that I know speaks any such language. For it may as rationally be concluded, that the dead body of a man, wherein there is to be found no more appearance or action of life than there is in a statue, has yet nevertheless a living soul in it because of its shape; as that there is a rational soul in a changeling, because he has the outside of a rational creature; when his actions carry far less marks of reason with them, in the whole course of his life, than what are to be found in many a beast.

§ 16. *Monsters.*

But it is the issue of rational parents, and must therefore be concluded to have a rational soul. I

know not by what logic you must so conclude. I am sure this is a conclusion, that men no where allow of. For if they did, they would not make bold, as every where they do, to destroy ill-formed and mis-shaped productions. Ay, but these are monsters. Let them be so; what will your driveling, unintelligent, intractable changeling be? Shall a defect in the body make a monster; a defect in the mind (the far more noble, and in the common phrase, the far more essential part) not? Shall the want of a nose, or a neck, make a monster, and put such issue out of the rank of men; the want of reason and understanding, not? This is to bring all back again to what was exploded just now: this is to place all in the shape, and to take the measure of a man only by his outside. To show that, according to the ordinary way of reasoning in this matter, people do lay the whole stress on the figure, and resolve the whole essence of the species of man (as they make it) into the outward shape, how unreasonable soever it be, and how much soever they disown it; we need but trace their thoughts and practice a little farther, and then it will plainly appear. The well-shaped changeling is a man, has a rational soul, though it appear not; this is past doubt, say you. Make the ears a little longer, and more pointed, and the nose a little flatter than ordinary, and then you begin to boggle: make the face yet narrower, flatter and longer, and then you are at a stand: add still more and more of the likeness of a brute to it, and let the head be perfectly that of some other animal, then presently it is a monster; and it is demonstration with you that it hath no rational soul, and must be destroyed. Where now (I ask) shall be the just measure of the utmost bounds of that shape, that carries with it a rational soul? For since there have been human fœtuses produced, half beast, and half man; and others three parts one, and one part the other; and so it is pos-

sible they may be in all the variety of approaches to the one or the other shape, and may have several degrees of mixture of the likeness of a man or a brute ; I would gladly know what are those precise lineaments, which, according to this hypothesis, are, or are not capable of a rational soul to be joined to them. What sort of outside is the certain sign that there is, or is not such an inhabitant within ? For till that be done, we talk at random of man : and shall always, I fear, do so, as long as we give ourselves up to certain sounds, and the imaginations of settled and fixed species in nature, we know not what. But after all, I desire it may be considered, that those who think they have answered the difficulty by telling us, that a mis-shaped foetus is a monster, run into the same fault they are arguing against, by constituting a species between man and beast. For what else, I pray, is their monster in the case (if the word monster signifies any thing at all) but something neither man nor beast, but partaking somewhat of either ? And just so is the changeling before-mentioned. So necessary is it to quit the common notion of species and essences, if we will truly look into the nature of things, and examine them, by what our faculties can discover in them as they exist, and not by groundless fancies, that have been taken up about them.

§ 17. *Words and species.*

I have mentioned this here, because I think we cannot be too cautious that words and species, in the ordinary notions which we have been used to of them, impose not on us. For I am apt to think, therein lies one great obstacle to our clear and distinct knowledge, especially in reference to substances ; and from thence has rose a great part of the difficulties about truth and certainty. Would we accustom ourselves to separate our contemplations and reasonings from words, we might, in a great measure, re-

medy this inconvenience within our own thoughts ; but yet it would still disturb us in our discourse with others, as long as we retained the opinion, that species and their essences were any thing else but our abstract ideas (such as they are) with names annexed to them, to be the signs of them.

§ 18. *Recapitulation.*

Wherever we perceive the agreement or disagreement of any of our ideas, there is certain knowledge : and wherever we are sure those ideas agree with the reality of things, there is certain real knowledge. Of which agreement of our ideas, with the reality of things, having here given the marks, I think I have shown wherein it is, that certainty, real certainty, consists : which, whatever it was to others, was, I confess, to me heretofore, one of those desiderata which I found great want of.

CHAP. V.

OF TRUTH IN GENERAL.

§ 1. *What truth is.*

WHAT is truth, was an inquiry many ages since ; and it being that which all mankind either do, or pretend to search after, it cannot but be worth our while carefully to examine wherein it consists, and so acquaint ourselves with the nature of it, as to observe how the mind distinguishes it from falsehood.

§ 2. *A right joining or separating of signs, i. e. ideas or words.*

Truth then seems to me, in the proper import of the word, to signify nothing but the joining or sepa-

rating of signs, as the things signified by them do agree or disagree one with another. The joining or separating of signs, here meant, is what by another name we call propositions. So that truth properly belongs only to propositions: whereof there are two sorts, viz. mental and verbal; as there are two sorts of signs commonly made use of, viz. ideas and words.

§ 3. *Which make mental or verbal propositions.*

To form a clear notion of truth, it is very necessary to consider truth of thought, and truth of words, distinctly one from another: but yet it is very difficult to treat of them asunder. Because it is unavoidable, in treating of mental propositions, to make use of words: and then the instances given of mental propositions cease immediately to be barely mental, and become verbal. For a mental proposition being nothing but a bare consideration of the ideas, as they are in our minds stripped of names, they lose the nature of purely mental propositions as soon as they are put into words.

§ 4. *Mental propositions are very hard to be treated of.*

And that which makes it yet harder to treat of mental and verbal propositions separately, is, that most men, if not all, in their thinking and reasonings, within themselves, make use of words instead of ideas: at least when the subject of their meditation contains in it complex ideas. Which is a great evidence of the imperfection and uncertainty of our ideas of that kind, and may, if attentively made use of, serve for a mark to show us, what are those things we have clear and perfect established ideas of, and what not. For if we will curiously observe the way our mind takes in thinking and reasoning, we shall find, I suppose, that when we make any propositions within our own thoughts about white or black, sweet or bitter, a triangle or a circle, we can and often do frame in our minds the ideas themselves, without reflecting on the names. But when we would consi-

der, or make propositions about the more complex ideas, as of a man, vitriol, fortitude, glory, we usually put the name for the idea: because the ideas these names stand for, being for the most part imperfect, confused, and undetermined, we reflect on the names themselves, because they are more clear, certain, and distinct, and readier occur to our thoughts than the pure ideas: and so we make use of these words instead of the ideas themselves, even when we would meditate and reason within ourselves, and make tacit mental propositions. In substances, as has been already noticed, this is occasioned by the imperfection of our ideas: we making the name stand for the real essence, of which we have no idea at all. In modes, it is occasioned by the great number of simple ideas, that go to the making them up. For many of them being compounded, the name occurs much easier than the complex idea itself, which requires time and attention to be recollected, and exactly represented, to the mind, even in those men who have formerly been at the pains to do it; and is utterly impossible to be done by those, who, though they have ready in their memory the greatest part of the common words of that language, yet perhaps never troubled themselves in all their lives to consider what precise ideas the most of them stood for. Some confused or obscure notions have served their turns, and many who talk very much of religion and conscience, of church and faith, of power and right, of obstructions and humours, melancholy and choler, would perhaps have little left in their thoughts and meditations, if one should desire them to think only of the things themselves, and lay by those words, with which they so often confound others, and not seldom themselves also.

§ 5. *Being nothing but the joining or separating ideas without words.*

But to return to the consideration of truth; we

must, I say, observe two sorts of propositions that we are capable of making.

First, mental, wherein the ideas in our understandings are without the use of words put together, or separated by the mind, perceiving or judging of their agreement or disagreement.

Secondly, verbal propositions, which are words, the signs of our ideas, put together or separated in affirmative or negative sentences. By which way of affirming or denying, these signs, made by sounds, are as it were put together or separated one from another. So that proposition consists in joining or separating signs, and truth consists in the putting together or separating those signs, according as the things, which they stand for, agree or disagree.

§ 6. *When mental propositions contain real truth, and when verbal.*

Every one's experience will satisfy him, that the mind, either by perceiving or supposing the agreement or disagreement of any of its ideas, does tacitly within itself put them into a kind of proposition affirmative or negative, which I have endeavoured to express by the terms putting together and separating. But this action of the mind, which is so familiar to every thinking and reasonable man, is easier to be conceived by reflecting on what passes in us when we affirm or deny, than to be explained by words. When a man has in his head the idea of two lines, viz. the side and diagonal of a square, whereof the diagonal is an inch long, he may have the idea also of the division of that line into a certain number of equal parts; v. g. into five, ten, an hundred, a thousand, or any other number, and may have the idea of that inch line being divisible, or not divisible, into such equal parts, as a certain number of them will be equal to the side-line. Now whenever he perceives, believes, or supposes such a kind of divisibility to agree or disagree to his idea of that

line, he, as it were, joins or separates those two ideas, viz. the idea of that line, and the idea of that kind of divisibility; and so makes a mental proposition, which is true or false, according as such a kind of divisibility, a divisibility into such aliquot parts, does really agree to that line or no. When ideas are so put together, or separated in the mind, as they or the things they stand for do agree or not, that is, as I may call it, mental truth. But truth of words is something more; and that is the affirming or denying of words one of another, as the ideas they stand for agree or disagree: and this again is twofold; either purely verbal and trifling, which I shall speak of, chap. viii. or real and instructive, which is the object of that real knowledge which we have spoken of already.

§ 7. *Objection against verbal truth, that thus it may all be chimerical.*

But here again will be apt to occur the same doubt about truth, that did about knowledge: and it will be objected, that if truth be nothing but the joining and separating of words in propositions, as the ideas they stand for agree or disagree in men's minds, the knowledge of truth is not so valuable a thing as it is taken to be, nor worth the pains and time men employ in the search of it; since by this account it amounts to no more than the conformity of words to the chimeras of men's brains. Who knows not what odd notions many men's heads are filled with, and what strange ideas all men's brains are capable of? But if we rest here, we know the truth of nothing by this rule, but of the visionary words in our own imaginations; nor have other truth, but what as much concerns harpies and centaurs, as men and horses. For those, and the like, may be ideas in our heads, and have their agreement and disagreement there, as well as the ideas of real beings, and so have as true propositions made about them. And it will

be altogether as true a proposition to say all centaurs are animals, as that all men are animals; and the certainty of one as great as the other. For in both the propositions, the words are put together according to the agreement of the ideas in our minds: and the agreement of the idea of animal with that of centaur is as clear and visible to the mind, as the agreement of the idea of animal with that of man; and so these two propositions are equally true, equally certain. But of what use is all such truth to us?

§ 8. *Answered, real truth is about ideas agreeing to things.*

Though what has been said in the foregoing chapter, to distinguish real from imaginary knowledge, might suffice here, in answer to this doubt, to distinguish real truth from chimerical, or (if you please) barely nominal, they depending both on the same foundation; yet it may not be amiss here again to consider, that though our words signify nothing but our ideas, yet being designed by them to signify things, the truth they contain when put into propositions, will be only verbal, when they stand for ideas in the mind, that have not an agreement with the reality of things. And therefore truth, as well as knowledge, may well come under the distinction of verbal and real; that being only verbal truth, wherein terms are joined according to the agreement or disagreement of the ideas they stand for, without regarding whether our ideas are such as really have, or are capable of having an existence in nature. But then it is they contain real truth, when these signs are joined, as our ideas agree; and when our ideas are such as we know are capable of having an existence in nature: which in substances we cannot know, but by knowing that such have existed.

§ 9. *Falsehood is the joining of names otherwise than their ideas agree.*

Truth is the marking down in words the agree-

ment or disagreement of ideas as it is. Falsehood is the marking down in words the agreement or disagreement of ideas otherwise than it is. And so far as these ideas, thus marked by sounds, agree to their archetypes, so far only is the truth real. The knowledge of this truth consists in knowing what ideas the words stand for, and the perception of the agreement or disagreement of those ideas, according as it is marked by those words.

§ 10. *General propositions to be treated of more at large.*

But because words are looked on as the great conduits of truth and knowledge, and that in conveying and receiving of truth, and commonly in reasoning about it, we make use of words and propositions; I shall more at large inquire, wherein the certainty of real truths, contained in propositions, consists, and where it is to be had; and endeavour to show in what sort of universal propositions we are capable of being certain of their real truth or falsehood.

I shall begin with general propositions, as those which most employ our thoughts, and exercise our contemplation. General truths are most looked after by the mind, as those that most enlarge our knowledge; and by their comprehensiveness, satisfying us at once of many particulars, enlarge our view, and shorten our way to knowledge.

§ 11. *Moral and metaphysical truth.*

Besides truth taken in the strict sense before mentioned, there are other sorts of truth; as, 1. Moral truth; which is speaking of things according to the persuasion of our own minds, though the proposition we speak agree not to the reality of things. 2. Metaphysical truth, which is nothing but the real existence of things conformable to the ideas to which we have annexed their names. This, though it seems to consist in the very beings of things, yet, when considered a little nearly, will appear to include a tacit proposition, whereby the mind joins that particular

thing to the idea it had before settled with a name to it. But these considerations of truth, either having been before taken notice of, or not being much to our present purpose, it may suffice here only to have mentioned them.

CHAP. VI.

OF UNIVERSAL PROPOSITIONS, THEIR TRUTH AND CERTAINTY.

§ 1. *Treating of words necessary to knowledge.*

THOUGH the examining and judging of ideas by themselves, their names being quite laid aside, be the best and surest way to clear and distinct knowledge; yet through the prevailing custom of using sounds for ideas, I think it is very seldom practised. Every one may observe how common it is for names to be made use of, instead of the ideas themselves, even when men think and reason within their own breasts; especially if the ideas be very complex, and made up of a great collection of simple ones. This makes the consideration of words and propositions so necessary a part of the treatise of knowledge, that it is very hard to speak intelligibly of the one, without explaining the other.

§ 2. *General truths hardly to be understood, but in verbal propositions.*

All the knowledge we have, being only of particular or general truths, it is evident, that whatever may be done in the former of these, the latter, which is that which with reason is most sought after, can never be well made known, and is very seldom ap-

prehended, but as conceived and expressed in words. It is not therefore out of our way, in the examination of our knowledge, to inquire into the truth and certainty of universal propositions.

§ 3. *Certainty two-fold, of truth, and of knowledge.*

But that we may not be misled in this case, by that which is the danger every where, I mean by the doubtfulness of terms, it is fit to observe, that certainty is twofold; certainty of truth, and certainty of knowledge. Certainty of truth is, when words are so put together in propositions as exactly to express the agreement or disagreement of the ideas they stand for, as really it is. Certainty of knowledge is to perceive the agreement or disagreement of ideas, as expressed in any proposition. This we usually call knowing, or being certain of the truth of any proposition.

§ 4. *No proposition can be known to be true, where the essence of each species mentioned is not known.*

Now because we cannot be certain of the truth of any general proposition, unless we know the precise bounds and extent of the species its terms stand for, it is necessary we should know the essence of each species, which is that which constitutes and bounds it. This, in all simple ideas and modes, is not hard to do. For in these the real and nominal essence being the same; or, which is all one, the abstract idea which the general term stands for, being the sole essence and boundary that is or can be supposed of the species; there can be no doubt, how far the species extends, or what things are comprehended under each term: which, it is evident, are all that have an exact conformity with the idea it stands for, and no other. But in substances wherein a real essence distinct from the nominal is supposed to constitute, determine, and bound the species, the extent of the general word is very uncertain: because not knowing this real essence, we can-

not know what is, or what is not of that species; and consequently what may, or may not with certainty be affirmed of it. And thus speaking of a man, or gold, or any other species of natural substances, as supposed constituted by a precise and real essence, which nature regularly imparts to every individual of that kind, whereby it is made to be of that species, we cannot be certain of the truth of any affirmation or negation made of it. For man, or gold, taken in this sense, and used for species of things constituted by real essences, different from the complex idea in the mind of the speaker; stand for we know not what: and the extent of these species, with such boundaries, are so unknown and undetermined, that it is impossible with any certainty to affirm, that all men are rational, or that all gold is yellow. But where the nominal essence is kept to, as the boundary of each species, and men extend the application of any general term no farther than to the particular things, in which the complex idea it stands for is to be found, there they are in no danger to mistake the bounds of each species, nor can be in doubt, on this account, whether any proposition be true or no. I have chosen to explain this uncertainty of propositions in this scholastic way, and have made use of the terms of essence and species, on purpose to show the absurdity and inconvenience there is to think of them, as of any other sort of realities, than barely abstract ideas with names to them. To suppose that the species of things are any thing but the sorting of them under general names, according as they agree to several abstract ideas, of which we make those names the signs, is to confound truth, and introduce uncertainty into all general propositions that can be made about them. Though therefore these things might, to people not possessed with scholastic learning, be treated of in a better and clearer way: yet those wrong notions of essences or species having got

root in most people's minds, who have received any tincture from the learning which has prevailed in this part of the world, are to be discovered and removed, to make way for that use of words which should convey certainty with it.

§ 5. *This more particularly concerns substances.*

The names of substances then whenever made to stand for species, which are supposed to be constituted by real essences, which we know not, are not capable to convey certainty to the understanding: of the truth of general propositions made up of such terms, we cannot be sure. The reason whereof is plain: for how can we be sure that this or that quality is in gold, when we know not what is or is not gold? Since in this way of speaking nothing is gold, but what partakes of an essence, which we not knowing, cannot know where it is or is not, and so cannot be sure that any parcel of matter in the world is or is not in this sense gold; being incurably ignorant, whether it has or has not that which makes any thing to be called gold, *i. e.* that real essence of gold whereof we have no idea at all: this being as impossible for us to know, as it is for a blind man to tell in what flower the colour of a pansie is, or is not to be found, whilst he has no idea of the colour of a pansie at all. Or if we could (which is impossible) certainly know where a real essence, which we know not, is; *v. g.* in what parcels of matter the real essence of gold is; yet could we not be sure, that this or that quality could with truth be affirmed of gold: since it is impossible for us to know, that this or that quality or idea has a necessary connexion with a real essence, of which we have no idea at all, whatever species that supposed real essence may be imagined to constitute.

§ 6. *The truth of few universal propositions concerning substances is to be known.*

On the other side, the names of substances, when

made use of as they should be, for the ideas men have in their minds, though they carry a clear and determinate signification with them, will not yet serve us to make many universal propositions, of whose truth we can be certain. Not because in this use of them we are uncertain what things are signified by them; but because the complex ideas they stand for are such combinations of simple ones, as carry not with them any discoverable connexion or repugnancy, but with a very few other ideas.

§ 7. *Because co-existence of ideas in few cases is to be known.*

The complex ideas, that our names of the species of substances properly stand for, are collections of such qualities as have been observed to co-exist in an unknown substratum, which we call substance: but what other qualities necessarily co-exist with such combinations, we cannot certainly know, unless we can discover their natural dependence; which in their primary qualities, we can go but a very little way in; and in all their secondary qualities, we can discover no connexion at all for the reasons mentioned, chap. iii. viz. 1. Because we know not the real constitutions of substances, on which each secondary quality particularly depends. 2. Did we know that, it would serve us only for experimental (not universal) knowledge; and reach with certainty no farther, than that bare instance; because our understandings can discover no conceivable connexion between any secondary quality and any modification whatsoever of any of the primary ones. And therefore there are very few general propositions to be made concerning substances, which can carry with them undoubted certainty.

§ 8. *Instance in gold.*

All gold is fixed, is a proposition whose truth we cannot be certain of, how universally soever it be believed. For if, according to the useless imagination

of the schools, any one supposes the term gold to stand for a species of things set out by nature, by a real essence belonging to it, it is evident he knows not what particular substances are of that species: and so cannot, with certainty, affirm any thing universally of gold. But if he makes gold stand for a species determined by its nominal essence, let the nominal essence, for example, be the complex idea of a body of a certain yellow colour, malleable, fusible, and heavier than any other known; in this proper use of the word gold, there is no difficulty to know what is or is not gold. But yet no other quality can with certainty be universally affirmed or denied of gold, but what hath a discoverable connexion or inconsistency with that nominal essence. Fixedness, for example, having no necessary connexion, that we can discover, with the colour, weight, or any other simple idea of our complex one, or with the whole combination together; it is impossible that we should certainly know the truth of this proposition, that all gold is fixed.

§ 9.

As there is no discoverable connexion between fixedness and the colour, weight, and other simple ideas of that nominal essence of gold; so if we make our complex idea of gold a body yellow, fusible, ductile, weighty, and fixed, we shall be at the same uncertainty concerning solubility in aq. regia, and for the same reason: since we can never, from consideration of the ideas themselves, with certainty affirm or deny of a body, whose complex idea is made up of yellow, very weighty, ductile, fusible, and fixed, that it is soluble in aqua regia; and so on, of the rest of its qualities. I would gladly meet with one general affirmation concerning any quality of gold, that any one can certainly know is true. It will, no doubt, be presently objected, is not this an universal proposition, "all gold is malleable?" To which I

answer, it is a very certain proposition, if malleableness be a part of the complex idea the word gold stands for. But then here is nothing affirmed of gold, but that that sound stands for an idea in which malleableness is contained: and such a sort of truth and certainty as this, it is to say a centaur is four-footed. But if malleableness makes not a part of the specific essence the name of gold stands for, it is plain, "all gold is malleable" is not a certain proposition. Because let the complex idea of gold be made up of which soever of its other qualities you please, malleableness will not appear to depend on that complex idea, nor follow from any simple one contained in it: the connexion that malleableness has (if it has any) with those other qualities, being only by the intervention of the real constitution of its insensible parts; which, since we know not, it is impossible we should perceive that connexion, unless we could discover that which ties them together.

§ 10. *As far as any such co-existence can be known, so far universal propositions may be certain. But this will go but a little way, because*

The more, indeed, of these co-existing qualities we unite into one complex idea, under one name, the more precise and determinate we make the signification of that word; but never yet make it thereby more capable of universal certainty, in respect of other qualities not contained in our complex idea; since we perceive not their connexion or dependence on one another, being ignorant both of that real constitution in which they are all founded, and also how they flow from it. For the chief part of our knowledge concerning substances is not, as in other things, barely of the relation of two ideas that may exist separately; but is of the necessary connexion and co-existence of several distinct ideas in the same subject, or of their repugnancy so to co-exist. Could we begin at the other end, and discover what it was, where-

in that colour consisted, what made a body lighter or heavier, what texture of parts made it malleable, fusible, and fixed, and fit to be dissolved in this sort of liquor, and not in another; if (I say) we had such an idea as this of bodies, and could perceive wherein all sensible qualities originally consist, and how they are produced; we might frame such ideas of them, as would furnish us with matter of more general knowledge, and enable us to make universal propositions, that should carry general truth and certainty with them. But whilst our complex ideas of the sorts of substances are so remote from that internal real constitution, on which their sensible qualities depend, and are made up of nothing but an imperfect collection of those apparent qualities our senses can discover; there can be few general propositions concerning substances, of whose real truth we can be certainly assured: since there are but few simple ideas, of whose connexion and necessary co-existence we can have certain and undoubted knowledge. I imagine, amongst all the secondary qualities of substances, and the powers relating to them, there cannot any two be named, whose necessary co-existence, or repugnance to co-exist, can certainly be known, unless in those of the same sense, which necessarily exclude one another, as I have elsewhere showed. No one, I think, by the colour that is in any body, can certainly know what smell, taste, sound, or tangible qualities it has, nor what alterations it is capable to make or receive, on or from other bodies. The same may be said of the sound or taste, &c. Our specific names of substances standing for any collections of such ideas, it is not to be wondered, that we can with them make very few general propositions of undoubted real certainty. But yet so far as any complex idea, of any sort of substances, contains in it any simple idea, whose necessary co-existence with any other may be discovered, so far

universal propositions may with certainty be made concerning it: *v. g.* could any one discover a necessary connexion between malleableness, and the colour or weight of gold, or any other part of the complex idea signified by that name, he might make a certain universal proposition concerning gold in this respect; and the real truth of this proposition, “that all gold is malleable,” would be as certain as of this, “the three angles of all right-lined triangles are all equal to two right ones.”

§ 11. *The qualities which make our complex ideas of substances, depend mostly on external, remote, and unperceived causes.*

Had we such ideas of substances, as to know what real constitutions produce those sensible qualities we find in them, and how those qualities flowed from thence, we could, by the specific ideas of their real essences in our own minds, more certainly find out their properties, and discover what qualities they had or had not, than we can now by our senses: and to know the properties of gold, it would be no more necessary that gold should exist, and that we should make experiments upon it, than it is necessary for the knowing the properties of a triangle, that a triangle should exist in any matter; the idea in our minds would serve for the one as well as the other. But we are so far from being admitted into the secrets of nature, that we scarce so much as ever approach the first entrance towards them. For we are wont to consider the substances we meet with, each of them as an entire thing by itself, having all its qualities in itself, and independent of other things; overlooking, for the most part, the operations of those invisible fluids they are encompassed with, and upon whose motions and operations depend the greatest part of those qualities which are taken notice of in them, and are made by us the inherent marks of distinction whereby we know and denominate them.

Put a piece of gold any where by itself, separate from the reach and influence of all other bodies, it will immediately lose all its colour and weight, and perhaps malleableness too; which, for aught I know, would be changed into a perfect friability. Water, in which to us fluidity is an essential quality, left to itself, would cease to be fluid. But if inanimate bodies owe so much of their present state to other bodies without them, that they would not be what they appear to us, were those bodies that environ them removed; it is yet more so in vegetables, which are nourished, grow, and produce leaves, flowers, and seeds, in a constant succession. And if we look a little nearer into the state of animals, we shall find that their dependence, as to life, motion, and the most considerable qualities to be observed in them, is so wholly on extrinsical causes and qualities of other bodies that make no part of them, that they cannot subsist a moment without them: though yet those bodies on which they depend, are little taken notice of, and make no part of the complex ideas we frame of those animals. Take the air but for a minute from the greatest part of living creatures, and they presently lose sense, life, and motion. This the necessity of breathing has forced into our knowledge. But how many other extrinsical, and possibly very remote bodies, do the springs of these admirable machines depend on, which are not vulgarly observed, or so much as thought on; and how many are there, which the severest inquiry can never discover? The inhabitants of this spot of the universe, though removed so many millions of miles from the sun, yet depend so much on the duly tempered motion of particles coming from, or agitated by it, that were this earth removed but a small part of the distance out of its present situation, and placed a little farther or nearer that source of heat, it is more than probable that the greatest part of the animals in it would

immediately perish : since we find them so often destroyed by an excess or defect of the sun's warmth, which an accidental position, in some parts of this our little globe, exposes them to. The qualities observed in a loadstone must needs have their source far beyond the confines of that body ; and the ravage made often on several sorts of animals by invisible causes, the certain death (as we are told) of some of them, by barely passing the line, or, as it is certain of other, by being removed into a neighbouring country ; evidently show that the concurrence and operations of several bodies, with which they are seldom thought to have any thing to do, is absolutely necessary to make them be what they appear to us, and to preserve those qualities by which we know and distinguish them. We are then quite out of the way, when we think that things contain within themselves the qualities that appear to us in them ; and we in vain search for that constitution within the body of a fly, or an elephant, upon which depend those qualities and powers we observe in them. For which perhaps, to understand them aright, we ought to look not only beyond this our earth and atmosphere, but even beyond the sun, or remotest star our eyes have yet discovered. For how much the being and operation of particular substances in this our globe depends on causes utterly beyond our view, is impossible for us to determine. We see and perceive some of the motions and grosser operations of things here about us ; but whence the streams come that keep all these curious machines in motion and repair, how conveyed and modified, is beyond our notice and apprehension : and the great parts and wheels, as I may so say, of this stupendous structure of the universe, may, for aught we know, have such a connexion and dependence in their influences and operations one upon another, that perhaps things in this our mansion would put on quite another face, and cease to be what they

are, if some one of the stars or great bodies, incomprehensibly remote from us, should cease to be or move as it does. This is certain, things however absolute and entire they seem in themselves, are but retainers to other parts of nature, for that which they are most taken notice of by us. Their observable qualities, actions, and powers, are owing to something without them; and there is not so complete and perfect a part that we know of nature, which does not owe the being it has, and the excellencies of it, to its neighbours; and we must not confine our thoughts within the surface of any body, but look a great deal farther, to comprehend perfectly those qualities that are in it.

§ 12.

If this be so, it is not to be wondered, that we have very imperfect ideas of substances; and that the real essences, on which depend their properties and operations, are unknown to us. We cannot discover so much as that size, figure, and texture of their minute and active parts, which is really in them; much less the different motions and impulses made in and upon them by bodies from without, upon which depends, and by which is formed, the greatest and most remarkable part of those qualities we observe in them, and of which our complex ideas of them are made up. This consideration alone is enough to put an end to all our hopes of ever having the ideas of their real essences; which whilst we want, the nominal essences we make use of instead of them will be able to furnish us but very sparingly with any general knowledge, or universal propositions capable of real certainty.

§ 13. *Judgment may reach farther, but that is not knowledge.*

We are not therefore to wonder, if certainty be to be found in very few general propositions made concerning substances: our knowledge of their qualities

and properties goes very seldom farther than our senses reach and inform us. Possibly inquisitive and observing men may, by strength of judgment, penetrate farther, and on probabilities taken from wary observation, and hints well laid together, often guess right at what experience has not yet discovered to them. But this is but guessing still; it amounts only to opinion, and has not that certainty which is requisite to knowledge. For all general knowledge lies only in our own thoughts, and consists barely in the contemplation of our own abstract ideas. Wherever we perceive any agreement or disagreement amongst them, there we have general knowledge; and by putting the names of those ideas together accordingly in propositions, can with certainty pronounce general truths. But because the abstract ideas of substances, for which their specific names stand, whenever they have any distinct and determinate signification, have a discoverable connexion or inconsistency with but a very few other ideas: the certainty of universal propositions concerning substances is very narrow and scanty in that part, which is our principal inquiry concerning them: and there are scarce any of the names of substances, let the idea it is applied to be what it will, of which we can generally and with certainty pronounce, that it has or has not this or that other quality belonging to it, and constantly co-existing or inconsistent with that idea, wherever it is to be found.

§ 14. *What is requisite for our knowledge of substances.*

Before we can have any tolerable knowledge of this kind, we must first know what changes the primary qualities of one body do regularly produce in the primary qualities of another, and how. Secondly, we must know what primary qualities of any body produce certain sensations or ideas in us. This is in truth no less than to know all the effects of matter, under its divers modifications of bulk, figure,

cohesion of parts, motion and rest. Which, I think every body will allow, is utterly impossible to be known by us without revelation. Now if it were revealed to us, what sort of figure, bulk, and motion of corpuscles, would produce in us the sensation of a yellow colour, and what sort of figure, bulk, and texture of parts, in the superficies of any body, were fit to give such corpuscles their due motion to produce that colour; would that be enough to make universal propositions with certainty, concerning the several sorts of them, unless we had faculties acute enough to perceive the precise bulk, figure, texture, and motion of bodies in those minute parts, by which they operate on our senses, so that we might by those frame our abstract ideas of them. I have mentioned here only corporeal substances, whose operations seem to lie more level to our understandings: for as to the operations of spirits, both their thinking and moving of bodies, we at first sight find ourselves at a loss; though perhaps, when we have applied our thoughts a little nearer to the consideration of bodies, and their operations, and examined how far our notions, even in these, reach, with any clearness, beyond sensible matter of fact, we shall be bound to confess, that even in these too our discoveries amount to very little beyond perfect ignorance and incapacity.

§ 15. *Whilst our ideas of substances contain not their real constitutions, we can make but few general certain propositions concerning them.*

This is evident, the abstract complex ideas of substances, for which their general names stand, not comprehending their real constitutions, can afford us very little universal certainty. Because our ideas of them are not made up of that, on which those qualities we observe in them, and would inform ourselves about, do depend, or with which they have any certain connexion: *v. g.* let the ideas to which we give the name man, be, as it commonly is, a body of the

ordinary shape, with sense, voluntary motion, and reason joined to it. This being the abstract idea, and consequently the essence of our species man, we can make but very few general certain propositions concerning man, standing for such an idea. Because not knowing the real constitution on which sensation, power of motion, and reasoning, with that peculiar shape, depend, and whereby they are united together in the same subject, there are very few other qualities, with which we can perceive them to have a necessary connexion: and therefore we cannot with certainty affirm, that all men sleep by intervals; that no man can be nourished by wood or stones; that all men will be poisoned by hemlock: because these ideas have no connexion nor repugnancy with this our nominal essence of man, with this abstract idea that name stands for. We must, in these and the like, appeal to trial in particular subjects, which can reach but a little way. We must content ourselves with probability in the rest; but can have no general certainty, whilst our specific idea of man contains not that real constitution, which is the root, wherein all his inseparable qualities are united, and from whence they flow. Whilst our idea, the word man stands for, is only an imperfect collection of some sensible qualities and powers in him, there is no discernible connexion or repugnance between our specific idea, and the operation of either the parts of hemlock or stones, upon his constitution. There are animals that safely eat hemlock, and others that are nourished by wood and stones: but as long as we want ideas of those real constitutions of different sorts of animals, wherein these and the like qualities and powers depend, we must not hope to reach certainty in universal propositions concerning them. Those few ideas only, which have a discernible connexion with our nominal essence, or any part of it, can afford us such propositions. But these are so few, and of so

little moment, that we may justly look on our certain general knowledge of substances, as almost none at all.

§ 16. *Wherein lies the general certainty of propositions.*

To conclude, general propositions, of what kind soever, are then only capable of certainty, when the terms used in them stand for such ideas, whose agreement or disagreement, as there expressed, is capable to be discovered by us. And we are then certain of their truth or falsehood, when we perceive the ideas the terms stand for to agree or not agree, according as they are affirmed or denied one of another. Whence we may take notice, that general certainty is never to be found but in our ideas. Whenever we go to seek it elsewhere in experiment, or observations without us, our knowledge goes not beyond particulars. It is the contemplation of our own abstract ideas that alone is able to afford us general knowledge.

CHAP. VII.

OF MAXIMS:

§ 1. *They are self-evident.*

THERE are a sort of propositions, which under the name of maxims and axioms have passed for principles of science; and because they are self-evident, have been supposed innate, although nobody (that I know) ever went about to show the reason and foundation of their clearness or cogency. It may however be worth while to inquire into the reason of their evidence, and see whether it be peculiar to them alone,

and also examine how far they influence and govern our other knowledge.

§ 2. *Wherein that self-evidence consists.*

Knowledge, as has been shown, consists in the perception of the agreement or disagreement of ideas: now where that agreement or disagreement is perceived immediately by itself, without the intervention or help of any other, there our knowledge is self-evident. This will appear to be so to any one, who will but consider any of those propositions, which, without any proof, he assents to at first sight: for in all of them he will find, that the reason of his assent is from that agreement or disagreement, which the mind, by an immediate comparing them, finds in those ideas answering the affirmation or negation in the proposition.

§ 3. *Self-evidence not peculiar to received axioms.*

This being so, in the next place let us consider, whether this self-evidence be peculiar only to those propositions, which commonly pass under the name of maxims, and have the dignity of axioms allowed them. And here it is plain, that several other truths, not allowed to be axioms, partake equally with them in this self-evidence. This we shall see, if we go over these several sorts of agreement or disagreement of ideas, which I have above-mentioned, viz. identity, relation, co-existence, and real existence; which will discover to us, that not only those few propositions, which have had the credit of maxims, are self-evident, but a great many, even almost an infinite number of other propositions are such.

§ 4.—1. *As to identity and diversity, all propositions are equally self-evident.*

For first the immediate perception of the agreement or disagreement of identity, being founded in the mind's having distinct ideas, this affords us as many self-evident propositions, as we have distinct ideas. Every one that has any knowledge at all,

has as the foundation of it, various and distinct ideas : and it is the first act of the mind (without which it can never be capable of any knowledge) to know every one of its ideas by itself, and distinguish it from others. Every one finds in himself, that he knows the ideas he has ; that he knows also, when any one is in his understanding, and what it is ; and that when more than one are there, he knows them distinctly and unconfusedly one from another. Which always being so (it being impossible but that he should perceive what he perceives) he can never be in doubt when any idea is in his mind, that it is there, and is that idea it is ; and that two distinct ideas, when they are in his mind, are there, and are not one and the same idea. So that all such affirmations and negations are made without any possibility of doubt, uncertainty, or hesitation, and must necessarily be assented to as soon as understood ; that is, as soon as we have in our minds determined ideas, which the terms in the proposition stand for. And therefore whenever the mind with attention considers any proposition, so as to perceive the two ideas signified by the terms, and affirmed or denied one of another, to be the same or different ; it is presently and infallibly certain of the truth of such a proposition, and this equally, whether these propositions be in terms standing for more general ideas, or such as are less so, *v. g.* whether the general idea of being be affirmed of itself, as in this proposition, whatsoever is, is ; or a more particular idea be affirmed of itself, as a man is a man ; or, whatsoever is white, is white ; or whether the idea of being in general be denied of not being, which is the only (if I may so call it) idea different from it, as in this other proposition, it is impossible for the same thing to be, and not to be ; or any idea of any particular being be denied of another different from it, as a man is not a horse ; red is not blue. The difference of the ideas,

as soon as the terms are understood, makes the truth of the proposition presently visible, and that with an equal certainty and easiness in the less as well as the more general propositions, and all for the same reason, viz. because the mind perceives, in any ideas that it has, the same idea to be the same with itself; and two different ideas to be different, and not the same. And this it is equally certain of, whether these ideas be more or less general, abstract, and comprehensive. It is not therefore alone to these two general propositions, whatsoever is, is; and it is impossible for the same thing to be, and not to be; that this sort of self-evidence belongs by any peculiar right. The perception of being, or not being, belongs no more to these vague ideas, signified by the terms whatsoever and thing, than it does to any other ideas. These two general maxims, amounting to no more in short but this, that the same is the same, and same is not different, are truths known in more particular instances, as well as in those general maxims, and known also in particular instances, before these general maxims are ever thought on, and draw all their force from the discernment of the mind employed about particular ideas. There is nothing more visible than that the mind, without the help of any proof, or reflection on either of these general propositions, perceives so clearly, and knows so certainly, that the idea of white is the idea of white, and not the idea of blue; and that the idea of white, when it is in the mind, is there, and is not absent; that the consideration of these axioms can add nothing to the evidence or certainty of its knowledge. Just so it is (as every one may experiment in himself) in all the ideas a man has in his mind; he knows each to be itself, and not to be another; and to be in his mind, and not away when it is there, with a certainty that cannot be greater; and therefore the truth of no general proposition can be known

with a greater certainty, nor add any thing to this. So that in respect of identity, our intuitive knowledge reaches as far as our ideas. And we are capable of making as many self-evident propositions, as we have names for distinct ideas. And I appeal to every one's own mind, whether this proposition, A circle is a circle, be not as self-evident a proposition, as that consisting of more general terms, whatsoever is, is; and again whether this proposition, blue is not red, be not a proposition that the mind can no more doubt of, as soon as it understands the words, than it does of that axiom, It is impossible for the same thing to be, and not to be; and so of all the like.

§ 5.—2. *In co-existence we have few self-evident propositions.*

Secondly, as to co-existence, or such necessary connexion between two ideas, that, in the subject where one of them is supposed, there the other must necessarily be also: of such agreement or disagreement as this, the mind has an immediate perception but in very few of them. And therefore in this sort we have but very little intuitive knowledge; nor are there to be found very many propositions that are self-evident, though some there are; *v. g.* the idea of filling a place equal to the contents of its superficies, being annexed to our idea of body, I think it is a self-evident proposition, that two bodies cannot be in the same place.

§ 6.—3. *In other relations we may have.*

Thirdly, as to the relations of modes, mathematicians have framed many axioms concerning that one relation of equality. As, equals taken from equals, the remainder will be equal; which, with the rest of that kind, however they are received for maxims by the mathematicians, and are unquestionable truths; yet, I think, that any one who considers them will not find, that they have a clearer self-evidence than

these, that one and one are equal to two; that if you take from the five fingers of one hand two, and from the five fingers of the other hand two, the remaining numbers will be equal. These and a thousand other such propositions may be found in numbers, which, at the very first hearing, force the assent, and carry with them an equal, if not greater clearness, than those mathematical axioms.

§ 7.—4. *Concerning real existence we have none.*

Fourthly, as to real existence, since that has no connexion with any other of our ideas, but that of ourselves, and of a first being, we have in that, concerning the real existence of all other beings, not so much as demonstrative, much less a self-evident knowledge; and therefore concerning those there are no maxims.

§ 8. *These axioms do not much influence our other knowledge.*

In the next place let us consider, what influence these received maxims have upon the other parts of our knowledge. The rules established in the schools, that all reasonings are “*ex præcognitis & præconcessis*,” seem to lay the foundation of all other knowledge in these maxims, and to suppose them to be *præcognita*; whereby, I think, are meant these two things: first, that these axioms are those truths that are first known to the mind. And, secondly, that upon them the other parts of our knowledge depend.

§ 9. *Because they are not the truths we first knew.*

First, that they are not the truths first known to the mind is evident to experience, as we have shown in another place, book i. chap. ii. Who perceives not that a child certainly knows that a stranger is not its mother; that its sucking-bottle is not the rod, long before he knows that it is impossible for the same thing to be and not to be? And how many truths are there about numbers, which it is obvious to observe, that the mind is perfectly acquainted

with, and fully convinced of, before it ever thought on these general maxims, to which mathematicians, in their arguings, do sometimes refer them? Whereof the reason is very plain: for that which makes the mind assent to such propositions, being nothing else but the perception it has of the agreement or disagreement of its ideas, according as it finds them affirmed or denied one of another, in words it understands; and every idea being known to be what it is, and every two distinct ideas being known not to be the same; it must necessarily follow, that such self-evident truths must be first known which consist of ideas that are first in the mind: and the ideas first in the mind, it is evident, are those of particular things, from whence, by slow degrees, the understanding proceeds to some few general ones; which being taken from the ordinary and familiar objects of sense, are settled in the mind, with general names to them. Thus particular ideas are first received and distinguished, and so knowledge got about them; and next to them, the less general or specific, which are next to particular: for abstract ideas are not so obvious or easy to children, or the yet unexercised mind, as particular ones. If they seem so to grown men, it is only because by constant and familiar use they are made so. For when we nicely reflect upon them, we shall find, that general ideas are fictions and contrivances of the mind, that carry difficulty with them, and do not so easily offer themselves, as we are apt to imagine. For example, does it not require some pains and skill to form the general idea of a triangle (which is yet none of the most abstract, comprehensive, and difficult), for it must be neither oblique, nor rectangle, neither equilateral, equicrural, nor scalenon; but all and none of these at once. In effect, it is something imperfect, that cannot exist; an idea wherein some parts of several different and inconsistent ideas are put together. It is true,

the mind, in this imperfect state, has need of such deas, and makes all the haste to them it can, for the conveniency of communication and enlargement of knowledge; to both which it is naturally very much inclined. But yet one has reason to suspect such ideas are marks of our imperfection; at least this is enough to show, that the most abstract and general ideas are not those that the mind is first and most easily acquainted with, not such as its earliest knowledge is conversant about.

§ 10. *Because on them the other parts of our knowledge do not depend.*

Secondly, from what has been said it plainly follows, that these magnified maxims are not the principles and foundations of all our other knowledge. For if there be a great many other truths, which have as much self-evidence as they, and a great many that we know before them, it is impossible they should be the principles, from which we deduce all other truths. Is it impossible to know that one and two are equal to three, but by virtue of this, or some such axiom, viz. the whole is equal to all its parts taken together? Many a one knows that one and two are equal to three, without having heard, or thought on that, or any other axiom, by which it might be proved: and knows it as certainly, as any other man knows, that the whole is equal to all its parts, or any other maxim, and all from the same reason of self-evidence; the equality of those ideas being as visible and certain to him without that, or any other axiom, as with it, it needing no proof to make it perceived. Nor after the knowledge that the whole is equal to all its parts, does he know that one and two are equal to three, better or more certainly than he did before. For if there be any odds in those ideas, the whole and parts are more obscure, or at least more difficult to be settled in the mind, than those of one, two, and three. And indeed, I think,

I may ask these men, who will needs have all knowledge, besides those general principles themselves, to depend on general, innate, and self-evident principles; what principle is requisite to prove, that one and one are two, that two and two are four, that three times two are six? Which being known without any proof, do evince that either all knowledge does not depend on certain præcognita or general maxims, called principles, or else that these are principles; and if these are to be counted principles, a great part of numeration will be so. To which if we add all the self-evident propositions, which may be made about all our distinct ideas, principles will be almost infinite, at least innumerable, which men arrive to the knowledge of, at different ages; and a great many of these innate principles they never come to know all their lives. But whether they come in view of the mind, earlier or later, this is true of them, that they are all known by their native evidence, are wholly independent, receive no light, nor are capable of any proof one from another; much less the more particular, from the more general; or the more simple, from the more compounded: the more simple, and less abstract, being the most familiar, and the easier and earlier apprehended. But which ever be the clearest ideas, the evidence and certainty of all such propositions is in this, that a man sees the same idea to be the same idea, and infallibly perceives two different ideas to be different ideas. For when a man has in his understanding the ideas of one and of two, the idea of yellow and the idea of blue, he cannot but certainly know, that the idea of one is the idea of one, and not the idea of two; and that the idea of yellow is the idea of yellow, and not the idea of blue. For a man cannot confound the ideas in his mind, which he has distinct: that would be to have them confused and distinct at the same time, which is a contradiction: and to have none distinct is to have

no use of our faculties, to have no knowledge at all. And therefore what idea soever is affirmed of itself, or whatsoever two entire distinct ideas are denied one of another, the mind cannot but assent to such a proposition as infallibly true, as soon as it understands the terms, without hesitation or need of proof, or regarding those made in more general terms, and called maxims.

§ 11. *What use these general maxims have.*

What shall we then say? Are these general maxims of no use? By no means; though perhaps their use is not that, which it is commonly taken to be. But since doubting in the least of what hath been by some men ascribed to these maxims may be apt to be cried out against, as overturning the foundations of all the sciences; it may be worth while to consider them, with respect to other parts of our knowledge, and examine more particularly to what purposes they serve, and to what not.

1. It is evident from what has been already said, that they are of no use to prove or confirm less general self-evident propositions.

2. It is as plain that they are not, nor have been the foundations whereon any science hath been built. There is, I know, a great deal of talk, propagated from scholastic men, of sciences and the maxims on which they are built: but it has been my ill luck never to meet with any such sciences; much less any one built upon these two maxims, what is, is; and it is impossible for the same thing to be, and not to be. And I would be glad to be shown where any such science, erected upon these, or any other general axioms, is to be found: and should be obliged to any one who would lay before me the frame and system of any science so built on these or any such-like maxims, that could not be shown to stand as firm without any consideration of them. I ask, whether these general maxims have not the

same use in the study of divinity, and in theological questions that they have in other sciences? They serve here to silence wranglers, and put an end to dispute. But I think that nobody will therefore say, that the christian religion is built upon these maxims, or that the knowledge we have of it is derived from these principles. It is from revelation we have received it, and without revelation these maxims had never been able to help us to it. When we find out an idea, by whose intervention we discover the connexion of two others, this is a revelation from God to us, by the voice of reason. For we then come to know a truth that we did not know before. When God declares any truth to us, this is a revelation to us by the voice of his spirit, and we are advanced in our knowledge. But in neither of these do we receive our light or knowledge from maxims. But in the one the things themselves afford it, and we see the truth in them by perceiving their agreement or disagreement. In the other, God himself affords it immediately to us, and we see the truth of what he says in his unerring veracity.

3. They are not of use to help men forward in the advancement of sciences, or new discoveries of yet unknown truths. Mr. Newton, in his never enough to be admired book, has demonstrated several propositions which are so many new truths, before unknown to the world, and are farther advances in mathematical knowledge: but, for the discovery of these, it was not the general maxims, what is, is; or, the whole is bigger than a part; or the like; that helped him. These were not the clues that led him into the discovery of the truth and certainty of those propositions. Nor was it by them that he got the knowledge of those demonstrations; but by finding out intermediate ideas, that showed the agreement or disagreement of the ideas, as expressed in the propositions he demonstrated. This is the greatest exercise

and improvement of human understanding in the enlarging of knowledge, and advancing the sciences: wherein they are far enough from receiving any help from the contemplation of these, or the like magnified maxims. Would those who have this traditional admiration of these propositions, that they think no step can be made in knowledge without the support of an axiom, no stone laid in the building of the sciences without a general maxim, but distinguish between the method of acquiring knowledge, and of communicating; between the method of raising any science and that of teaching it to others as far as it is advanced; they would see that those general maxims were not the foundations on which the first discoverers raised their admirable structures, nor the keys that unlocked and opened those secrets of knowledge. Though afterwards, when schools were erected, and sciences had their professors to teach what others had found out, they often made use of maxims, *i. e.* laid down certain propositions which were self-evident, or to be received for true; which being settled in the minds of their scholars, as unquestionable verities, they on occasion made use of, to convince them of truths in particular instances that were not so familiar to their minds as those general axioms which had before been inculcated to them, and carefully settled in their minds. Though these particular instances, when well reflected on, are no less self-evident to the understanding than the general maxims brought to confirm them: and it was in those particular instances that the first discoverer found the truth, without the help of the general maxims: and so may any one else do, who with attention considers them.

To come therefore to the use that is made of maxims.

1. They are of use, as has been observed, in the ordinary methods of teaching sciences as far as they

are advanced ; but of little or none in advancing them farther.

2. They are of use in disputes, for the silencing of obstinate wranglers, and bringing those contests to some conclusion. Whether a need of them to that end came not in, in the manner following, I crave leave to inquire. The schools having made disputation the touchstone of men's abilities, and the criterion of knowledge, adjudged victory to him that kept the field : and he that had the last word, was concluded to have the better of the argument, if not of the cause. But because by this means there was like to be no decision between skilful combatants, whilst one never failed of a *medius terminus* to prove any proposition ; and the other could as constantly, without, or with a distinction, deny the major or minor ; to prevent, as much as could be, running out of disputes into an endless train of syllogisms, certain general propositions, most of them indeed self-evident, were introduced into the schools ; which being such as all men allowed and agreed in, were looked on as general measures of truth, and served instead of principles (where the disputants had not lain down any other between them) beyond which there was no going, and which must not be receded from by either side. And thus these maxims getting the name of principles, beyond which men in dispute could not retreat, were by mistake taken to be originals and sources, from whence all knowledge began, and the foundations whereon the sciences were built. Because when in their disputes they came to any of these, they stopped there, and went no farther, the matter was determined. But how much this is a mistake, hath been already shown.

This method of the schools, which have been thought the fountains of knowledge, introduced, as I suppose, the like use of these maxims, into a great part of conversation out of the schools, to stop the

mouths of cavillers, whom any one is excused from arguing any longer with, when they deny these general self-evident principles received by all reasonable men, who have once thought of them : but yet their use herein is but to put an end to wrangling. They in truth, when urged in such cases, teach nothing : that is already done by the intermediate ideas made use of in the debate, whose connexion may be seen without the help of those maxims, and so the truth known before the maxim is produced, and the argument brought to a first principle. Men would give off a wrong argument before it came to that, if in their disputes they proposed to themselves the finding and embracing of truth, and not a contest for victory. And thus maxims have their use to put a stop to their perverseness, whose ingenuity should have yielded sooner. But the method of these schools having allowed and encouraged men to oppose and resist evident truth till they are baffled, *i. e.* till they are reduced to contradict themselves or some established principle, it is no wonder that they should not in civil conversation be ashamed of that, which in the schools is counted a virtue and a glory ; obstinately to maintain that side of the question they have chosen, whether true or false, to the last extremity, even after conviction. A strange way to attain truth and knowledge, and that which I think the rational part of mankind, not corrupted by education, could scarce believe should ever be admitted amongst the lovers of truth, and students of religion or nature ; or introduced into the seminaries of those who are to propagate the truths of religion or philosophy amongst the ignorant and unconvinced. How much such a way of learning is like to turn young men's minds from the sincere search and love of truth ; nay, and to make them doubt whether there is any such thing, or at least worth the adhering to, I shall not now inquire. This I think, that bating those

places, which brought the peripatetic philosophy into their schools, where it continued many ages, without teaching the world any thing but the art of wrangling; these maxims were no where thought the foundations on which the sciences were built, nor the great helps to the advancement of knowledge.

As to these general maxims therefore, they are, as I have said, of great use in disputes, to stop the mouths of wranglers; but not of much use to the discovery of unknown truths, or to help the mind forwards in its search after knowledge. For who ever began to build his knowledge on this general proposition, what is, is; or, it is impossible for the same thing to be, and not to be: and from either of these, as from a principle of science, deduced a system of useful knowledge? Wrong opinions often involving contradictions, one of these maxims, as a touchstone, may serve well to show whither they lead. But yet, however fit to lay open the absurdity or mistake of a man's reasoning or opinion, they are of very little use for enlightening the understanding; and it will not be found, that the mind receives much help from them in its progress in knowledge; which would be neither less, nor less certain, were these two general propositions never thought on. It is true, as I have said, they sometimes serve in argumentation to stop a wrangler's mouth, by showing the absurdity of what he saith, and by exposing him to the shame of contradicting what all the world knows, and he himself cannot but own to be true. But it is one thing to show a man that he is in an error; and another to put him in possession of truth: and I would fain know what truths these two propositions are able to teach, and by their influence make us know, which we did not know before, or could not know without them. Let us reason from them as well as we can, they are only about identical predications, and influence, if any at all, none but such. Each parti-

cular proposition concerning identity or diversity, is as clearly and certainly known in itself, if attended to, as either of these general ones: only these general ones, as serving in all cases, and therefore more inculcated and insisted on. As to other less general maxims, many of them are no more than bare verbal propositions, and teach us nothing but the respect and import of names one to another. "The whole is equal to all its parts;" what real truth, I beseech you, does it teach us? What more is contained in that maxim than what the signification of the word *totum*, or the whole, does of itself import? And he that knows that the word whole stands for what is made up of all its parts, knows very little less, than that the whole is equal to all its parts. And upon the same ground, I think that this proposition, a hill is higher than a valley, and several the like, may also pass for maxims. But yet masters of mathematics, when they would, as teachers of what they know, initiate others in that science; do not without reason place this, and some other such maxims, at the entrance of their systems; that their scholars, having in the beginning perfectly acquainted their thoughts with these propositions, made in such general terms, may be used to make such reflections, and have these more general propositions, as formed rules and sayings, ready to apply to all particular cases. Not that if they be equally weighed, they are more clear and evident than the particular instances they are brought to confirm; but that, being more familiar to the mind, the very naming them is enough to satisfy the understanding. But this, I say, is more from our custom of using them, and the establishment they have got in our minds, by our often thinking of them, than from the different evidence of the things. But before custom has settled methods of thinking and reasoning in our minds, I am apt to imagine it is quite otherwise; and that the child, when part of his

apple is taken away, knows it better in that particular instance, than by this general proposition, the whole is equal to all its parts; and that if one of these have need to be confirmed to him by the other, the general has more need to be let into his mind by the particular, than the particular by the general. For in particulars our knowledge begins, and so spreads itself by degrees to generals. Though afterwards the mind takes the quite contrary course, and having drawn its knowledge into as general propositions as it can, makes those familiar to its thoughts, and accustoms itself to have recourse to them, as to the standards of truth and falsehood: By which familiar use of them, as rules to measure the truth of other propositions, it comes in time to be thought, that more particular propositions have their truth and evidence from their conformity to these more general ones, which in discourse and argumentation are so frequently urged, and constantly admitted. And this I think to be the reason why amongst so many self-evident propositions, the most general only have had the title of maxims.

§ 12. *Maxims, if care be not taken in the use of words, may prove contradictions.*

One thing farther, I think, it may not be amiss to observe concerning these general maxims, that they are so far from improving or establishing our minds in true knowledge, that if our notions be wrong, loose or unsteady, and we resign up our thoughts to the sound of words, rather than fix them on settled determined ideas of things; I say, these general maxims will serve to confirm us in mistakes; and in such a way of use of words, which is most common, will serve to prove contradictions: *v. g.* he that, with Des Cartes, shall frame in his mind an idea of what he calls body to be nothing but extension, may easily demonstrate that there is no vacuum, *i. e.* no space void of body, by this maxim, what is, is. For the

idea to which he annexes the name body, being bare extension, his knowledge, that space cannot be without body, is certain. For he knows his own idea of extension clearly and distinctly, and knows that it is what it is, and not another idea, though it be called by these three names, extension, body, space. Which three words, standing for one and the same idea, may no doubt, with the same evidence and certainty, be affirmed one of another, as each of itself; and it is as certain, that whilst I use them all to stand for one and the same idea, this predication is as true and identical in its signification, that space is body, as this predication is true and identical, that body is body, both in signification and sound.

§ 13. *Instance in vacuum.*

But if another should come, and make to himself another idea, different from Des Cartes's, of the thing, which yet with Des Cartes, he calls by the same name body; and make his idea, which he expresses by the word body, to be of a thing that hath both extension and solidity together; he will as easily demonstrate, that there may be a vacuum, or space without a body, as Des Cartes demonstrated the contrary. Because the idea to which he gives the name space being barely the simple one of extension; and the idea to which he gives the name body, being the complex idea of extension and resistibility, or solidity, together in the same subject; these two ideas are not exactly one and the same, but in the understanding as distinct as the ideas of one and two, white and black, or as of corporeity and humanity, if I may use those barbarous terms: and therefore the predication of them in our minds, or in words standing for them, is not identical, but the negation of them one of another, viz. this proposition, extension or space is not body, is as true and evidently certain, as this maxim, it is impossible for the same thing to be, and not to be, can make any proposition.

§ 14. *They prove not the existence of things without us.*

But yet though both these propositions (as you see) may be equally demonstrated, viz. that there may be a vacuum, and that there cannot be a vacuum, by these two certain principles, viz. what is, is; and the same thing cannot be, and not be: yet neither of these principles will serve to prove to us, that any, or what bodies do exist: for that we are left to our senses, to discover to us as far as they can. Those universal and self-evident principles, being only our constant, clear, and distinct knowledge of our own ideas, more general or comprehensive, can assure us of nothing that passes without the mind; their certainty is founded only upon the knowledge we have of each idea by itself, and of its distinction from others; about which we cannot be mistaken whilst they are in our minds, though we may, and often are mistaken when we retain the names without the ideas; or use them confusedly sometimes for one, and sometimes for another idea. In which cases the force of these axioms, reaching only to the sound, and not the signification of the words, serves only to lead us into confusion, mistake, and error. It is to show men, that these maxims, however cried up for the great guards of truth, will not secure them from error in a careless loose use of their words, that I have made this remark. In all that is here suggested concerning their little use for the improvement of knowledge, or dangerous use in undetermined ideas, I have been far enough from saying or intending they should be laid aside, as some have been too forward to charge me. I affirm them to be truths, self-evident truths; and so cannot be laid aside. As far as their influence will reach, it is in vain to endeavour, nor will I attempt to abridge it. But yet, without any injury to truth or knowledge, I may have reason to think their use is not answerable to the great stress which seems to be laid on

them ; and I may warn men not to make an ill use of them, for the confirming themselves in errors.

§ 15. *Their application dangerous about complex ideas.*

But let them be of what use they will in verbal propositions, they cannot discover or prove to us the least knowledge of the nature of substances, as they are found and exist without us, any farther than grounded on experience. And though the consequence of these two propositions, called principles, be very clear, and their use not dangerous or hurtful, in the probation of such things, wherein there is no need at all of them for proof, but such as are clear by themselves without them, viz. where our ideas are determined, and known by the names that stand for them : yet when these principles, viz. what is, is ; and it is impossible for the same thing to be, and not to be ; are made use of in the probation of propositions, wherein are words standing for complex ideas ; v. g. man, horse, gold, virtue ; there they are of infinite danger, and most commonly make men receive and retain falsehood for manifest truth, and uncertainty for demonstration : upon which follow error, obstinacy, and all the mischiefs that can happen, from wrong reasoning. The reason whereof is not, that these principles are less true, or of less force in proving propositions made of terms standing for complex ideas, than where the propositions are about simple ideas. But because men mistake generally, thinking that where the same terms are preserved, the propositions are about the same things, though the ideas they stand for are in truth different ; therefore these maxims are made use of to support those, which in sound and appearance are contradictory propositions ; as is clear in the demonstrations above-mentioned about a vacuum. So that whilst men take words for things, as usually they do, these maxims may and do commonly serve to prove contradictory propositions : as shall yet be farther made manifest.

§ 16. *Instance in man.*

For instance, let man be that concerning which you would by these first principles demonstrate any thing, and we shall see, that so far as demonstration is by these principles, it is only verbal, and gives us no certain universal true proposition, or knowledge of any being existing without us. First, a child having framed the idea of a man, it is probable that his idea is just like that picture, which the painter makes of the visible appearances joined together; and such a complication of ideas together in his understanding, makes up the simple complex idea, which he calls man, whereof white or flesh-colour in England being one, the child can demonstrate to you that a negro is not a man, because white colour was one of the constant simple ideas of the complex idea he calls man; and therefore he can demonstrate by the principle, it is impossible for the same thing to be, and not to be, that a negro is not a man; the foundation of his certainty being not that universal proposition, which perhaps he never heard nor thought of, but the clear distinct perception he hath of his own simple ideas of black and white, which he cannot be persuaded to take, nor can ever mistake one for another, whether he knows that maxim or no: and to this child, or any one who hath such an idea, which he calls man, can you never demonstrate that a man hath a soul, because his idea of man includes no such notion or idea in it. And therefore to him, the principle of what is, is, proves not this matter; but it depends upon collection and observation, by which he is to make his complex idea called man.

§ 17.

Secondly, another that hath gone farther in framing and collecting the idea he calls man, and to the outward shape adds laughter and rational discourse, may demonstrate that infants and changelings are no men, by this maxim, it is impossible for the same

thing to be, and not to be; and I have discoursed with very rational men, who have actually denied that they are men.

§ 18.

Thirdly, perhaps another makes up the complex idea which he calls man, only out of the ideas of body in general, and the powers of language and reason, and leaves out the shape wholly: this man is able to demonstrate, that a man may have no hands, but be quadrupes, neither of those being included in his idea of man; and in whatever body or shape he found speech and reason joined, that was a man; because having a clear knowledge of such a complex idea, it is certain that what is, is.

§ 19. *Little use of these maxims in proofs where we have clear and distinct ideas.*

So that, if rightly considered, I think we may say, that where our ideas are determined in our minds, and have annexed to them by us known and steady names under those settled determinations, there is little need or no use at all of these maxims, to prove the agreement or disagreement of any of them. He that cannot discern the truth or falsehood of such propositions, without the help of these and the like maxims, will not be helped by these maxims to do it: since he cannot be supposed to know the truth of these maxims themselves without proof, if he cannot know the truth of others without proof, which are as self-evident as these. Upon this ground it is, that intuitive knowledge neither requires nor admits any proof, one part of it more than another. He that will suppose it does, takes away the foundation of all knowledge and certainty: and he that needs any proof to make him certain, and give his assent to this proposition, that two are equal to two, will also have need of a proof to make him admit, that what is, is. He that needs a probation to convince him, that two are not three, that white is not black,

that a triangle is not a circle, &c. or any other two determined distinct ideas are not one and the same, will need also a demonstration to convince him, that it is impossible for the same thing to be, and not to be.

§ 20. *Their use dangerous where our ideas are confused.*

And as these maxims are of little use, where we have determined ideas, so they are, as I have showed, of dangerous use, where our ideas are not determined; and where we use words that are not annexed to determined ideas, but such as are of a loose and wandering signification, sometimes standing for one, and sometimes for another idea: from which follow mistake and error, which these maxims (brought as proofs to establish propositions, wherein the terms stand for undetermined ideas) do by their authority confirm and rivet.

END OF VOLUME SECOND.











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