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JOHN LOCKE

AN ESSAY CONCERNING HUMAN UNDERSTANDING

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BOOK II: OF IDEAS

CHAPTER I

Of Ideas in General, and their Original

Idea is the object of thinking

§1. Every man being conscious to himself, that he thinks, and that which his mind is applied about, whilst thinking, being the ideas, that are there, 'tis past doubt, that men have in their minds several ideas, such as are those expressed by the words, *whiteness*, *hardness*, *sweetness*, *thinking*, *motion*, *man*, *elephant*, *army*, *drunkenness*, and others: it is in the first place then to be inquired, how he comes by them? I know it is a received doctrine, that men have native ideas, and original characters stamped upon their minds, in their very first being. This opinion I have at large examined already; and, I suppose, what I have said in the foregoing book, will be much more easily admitted, when I have shown, whence the understanding may get all the ideas it has, and by what ways and degrees they may come into the mind; for which I shall appeal to everyone's own observation and experience.

All ideas come from sensation or reflection

§2. Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas; how comes it to be furnished? Whence comes it by that vast store, which the busy and boundless fancy of man has painted on it, with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, from *experience*: in that, all our knowledge is founded; and from that it ultimately derives itself. Our observation employed either about *external sensible objects; or about the internal operations of our minds, perceived and reflected on by ourselves, is that, which supplies our understandings with all the materials of thinking.* These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring.

The objects of sensation one source of ideas

§3. First, *our senses*, conversant about particular sensible objects, do *convey into the mind*, several distinct *perceptions* of things, according to those various ways, wherein those objects do affect them: and thus we come by those ideas, we have of *yellow*, *white*, *heat*, *cold*, *soft*, *hard*, *bitter*, *sweet*, and all those which we call sensible qualities, which

when I say the senses convey into the mind, I mean, they from external objects convey into the mind what produces there those *perceptions*. This great source, of most of the ideas we have, depending wholly upon our senses, and derived by them to the understanding, I call *sensation*.

The operations of our minds, the other source of them

§4. Secondly, the other fountain, from which experience furnisheth the understanding with ideas, is the *perception of the operations of our own minds* within us, as it is employed about the ideas it has got; which operations, when the soul comes to reflect on, and consider, do furnish the understanding with another set of ideas, which could not be had from things without; and such are, *perception*, *thinking*, *doubting*, *believing*, *reasoning*, *knowing*, *willing*, and all the different actings of our own minds; which we being conscious of, and observing in ourselves, do from these receive into our understandings, as distinct ideas, as we do from bodies affecting our senses. This source of ideas, every man has wholly in himself: and though it be not sense, as having nothing to do with external objects; yet it is very like it, and might properly enough be called internal sense. But as I call the other *sensation*, so I call this *reflection*, the ideas it affords being such only, as the mind gets by reflecting on its own operations within itself. By *reflection* then, in the following part of this discourse, I would be understood to mean, that notice which the mind takes of its own operations, and the manner of them, by reason whereof, there come to be ideas of these operations in the understanding. These two, I say, *viz.* external, material things, as the objects of *sensation*; and the operations of our own minds within, as the objects of *reflection*, are, to me, the only originals, from whence all our ideas take their beginnings. The term *operations* here, I use in a large sense, as comprehending not barely the actions of the mind about its ideas, but some sort of passions arising sometimes from them, such as is the satisfaction or uneasiness arising from any thought.

All our ideas are of the one or the other of these

§5. The understanding seems to me, not to have the least glimmering of any ideas, which it doth not receive from one of these two. *External objects furnish the mind with the ideas of sensible qualities*, which are all those different perceptions they produce in us: and the *mind furnishes the understanding with ideas of its own operations*.

These, when we have taken a full survey of them, and their several modes, combinations, and relations, we shall find to contain all our whole stock of ideas; and that we have nothing in our minds, which did not come in, one of these two ways. Let anyone examine his own thoughts, and throughly search into his understanding, and then let him tell me, whether

all the original ideas he has there, are any other than of the objects of his *senses*; or of the operations of his mind, considered as objects of his *reflection*: and how great a mass of knowledge soever he imagines to be lodged there, he will, upon taking a strict view, see, that he has *not any idea in his mind, but what one of these two have imprinted*; though, perhaps, with infinite variety compounded and enlarged by the understanding, as we shall see hereafter.

Observable in children

§6. He that attentively considers the state of a *child*, at his first coming into the world, will have little reason to think him stored with plenty of ideas, that are to be the matter of his future knowledge. 'Tis by degrees he comes to be furnished with them: and though the ideas of obvious and familiar qualities, imprint themselves, before the memory begins to keep a register of time and order, yet 'tis often so late, before some unusual qualities come in the way, that there are few men that cannot recollect the beginning of their acquaintance with them: and if it were worthwhile, no doubt a child might be so ordered, as to have but a very few, even of the ordinary ideas, till he were grown up to a man. But all that are born into the world being surrounded with bodies, that perpetually and diversely affect them, variety of ideas, whether care be taken about it or no, are imprinted on the minds of children. *Light*, and *colours*, are busy at hand everywhere, when the eye is but open; *sounds*, and some *tangible qualities* fail not to solicit their proper senses, and force an entrance to the mind; but yet, I think, it will be granted easily, that if a child were kept in a place, where he never saw any other but black and white, till he were a man, he would have no more ideas of scarlet or green, than he that from his childhood never tasted an oyster, or a pineapple, has of those particular relishes.

Men are differently furnished with these, according to the different objects they converse with

§7. Men then come to be furnished with fewer or more simple ideas from without, according as the *objects*, they converse with, afford greater or less variety; and from the operation of their minds within, according as they more or less *reflect* on them. For, though he that contemplates the operations of his mind, cannot but have plain and clear *ideas* of them; yet unless he turn his thoughts that way, and considers them *attentively*, he will no more have clear and distinct ideas of all the *operations of his mind*, and all that may be observed therein, than he will have all the particular ideas of any landscape, or of the parts and motions of a clock, who will not turn his eyes to it, and with attention heed all the parts of it. The picture, or clock

may be so placed, that they may come in his way every day; but yet he will have but a confused idea of all the parts they are made up of, till he *applies himself with attention*, to consider them each in particular.

Ideas of reflection later, because they need attention

§8. And hence we see the reason, why 'tis pretty late, before most children get ideas of the operations of their own minds; and some have not any very clear, or perfect ideas of the greatest part of them all their lives. Because, though they pass there continually; yet like floating visions, they make not deep impressions enough, to leave in the mind clear distinct lasting ideas, till the understanding turns inwards upon itself, *reflects* on its own *operations*, and makes them the object of its own contemplation. Children, when they come first into it, are surrounded with a world of new things, which, by a constant solicitation of their senses, draw the mind constantly to them, forward to take notice of new, and apt to be delighted with the variety of changing objects. Thus the first years are usually employed and diverted in looking abroad. Men's business in them is to acquaint themselves with what is to be found without; and so growing up in a constant attention to outward sensations, seldom make any considerable reflection on what passes within them, till they come to be of riper years; and some scarce ever at all.

The soul begins to have ideas, when it begins to perceive

§9. To ask, *at what time a man has first any ideas*, is to ask, when he begins to perceive; having ideas, and perception, being the same thing. I know it is an opinion, that the soul always thinks,[1] and that it has the actual perception of ideas in itself constantly, as long as it exists; and that actual thinking is as inseparable from the soul, as actual extension is from the body; which if true, to inquire after the beginning of a man's ideas, is the same, as to inquire after the beginning of his soul. For by this account, soul and its ideas, as body and its extension, will begin to exist both at the same time.

The soul thinks not always; for this wants proofs

§10. But whether the soul be supposed to exist antecedent to, or coeval with, or some time after the first rudiments of organisation, or the beginnings of life in the body, I leave to be disputed by those, who have better thought of that matter. I confess myself, to have one of those dull souls, that doth not perceive itself always to contemplate ideas, nor can conceive it any more necessary for the *soul always to think*, than for the body always to move; the perception of ideas being (as I conceive) to the soul, what motion is to the body, not its essence, but one of its operations: and therefore, though thinking be supposed never so much the proper action of the soul; yet it is not necessary, to suppose,

that it should be always thinking, always in action. That, perhaps, is the privilege of the infinite Author and Preserver of things, 'who never slumbers nor sleeps';[2] but is not competent to any finite being, at least not to the soul of man. We know certainly by experience, that we sometimes think, and thence draw this infallible consequence, that, there is something in us, that has a power to think: but whether that substance perpetually thinks, or no, we can be no further assured, than experience informs us. For to say, that actual thinking is essential to the soul, and inseparable from it, is to beg, what is in question, and not to prove it by reason; which is necessary to be done, if it be not a self-evident proposition. But whether this, 'that the soul always thinks', be a self-evident proposition, that everybody assents to at first hearing, I appeal to mankind. 'Tis doubted whether I thought all last night, or no; the question being about a matter of fact, 'tis begging it, to bring as a proof for it, an hypothesis, which is the very thing in dispute; by which way one may prove anything, and 'tis but supposing that all watches, whilst the balance beats, think, and 'tis sufficiently proved, and past doubt, that my watch thought all last night. But he, that would not deceive himself, ought to build his hypothesis on matter of fact, and make it out by sensible experience, and not presume on matter of fact, because of his hypothesis, that is, because he supposes it to be so; which way of proving, amounts to this, that I must necessarily think all last night, because another supposes I always think, though I myself cannot perceive, that I always do so.

But men in love with their opinions, may not only suppose what is in question, but allege wrong matter of fact. How else could anyone[3] make it an *inference* of mine, *that a thing is not, because we are not sensible of it in our sleep*? I do not say there is no soul in a man, because he is not sensible of it in his sleep: but I do say, he cannot think at any time waking or sleeping, without being sensible of it. Our being sensible of it, is not necessary to anything, but to our thoughts; and to them it is, and to them it will always be necessary, till we can think without being conscious of it.

It is not always conscious of it

§11. I grant that the soul in a waking man, is never without thought because it is the condition of being awake: but whether sleeping without dreaming be not an affection of the whole man, mind as well as body, may be worth a waking man's consideration; it being hard to conceive, that anything should think, and not be conscious of it. If the *soul* doth *think in a sleeping man*, without being conscious of it, I ask, whether, during such thinking, it has any pleasure or pain, or be capable of happiness or misery? I am sure the man is not, no more than the bed or earth he lies

on. For to be happy or miserable without being conscious of it, seems to me utterly inconsistent and impossible. Or if it be possible, that the soul can, whilst the body is sleeping, have its thinking, enjoyments, and concerns, its pleasure or pain apart, which the man is not conscious of, nor partakes in: it is certain, that Socrates[4] asleep, and Socrates awake, is not the same person: but his soul when he sleeps, and Socrates the man consisting of body and soul when he is waking, are two persons; since waking Socrates, has no knowledge of, or concernment for that happiness, or misery of his soul, which it enjoys alone by itself whilst he sleeps, without perceiving anything of it; no more than he has for the happiness, or misery of a man in the Indies,[5] whom he knows not. For if we take wholly away all consciousness of our actions and sensations, especially of pleasure and pain, and the concernment that accompanies it, it will be hard to know wherein to place personal identity.

If a sleeping man thinks without knowing it, the sleeping and waking man are two persons

§12. The soul, during sound sleep, thinks, say these men.[6] *Whilst it thinks* and perceives, it is capable certainly of those of delight or trouble, as well as any other perceptions; and *it must necessarily be conscious of its own perceptions*. But it has all this apart: the sleeping man, 'tis plain, is conscious of nothing of all this. Let us suppose then the soul of Castor,[7] whilst he is sleeping, retired from his body, which is no impossible supposition for the men I have here to do with,[8] who so liberally allow life, without a thinking soul to all other animals. These men cannot then judge it impossible, or a contradiction, that the body should live without the soul; nor that the soul should subsist and think, or have perception, even perception of happiness or misery, without the body. Let us then, as I say, suppose the soul of Castor separated, during his sleep, from his body, to think apart. Let us suppose too, that it chooses for its scene of thinking, the body of another man, *v.g.* Pollux,[9] who is sleeping without a soul: for if Castor's soul can think whilst Castor is asleep, what Castor is never conscious of, 'tis no matter what place it chooses to think in. We have here then, the bodies of two men with only one soul between them, which we will suppose to sleep and wake by turns; and the soul still thinking in the waking man, whereof the sleeping man is never conscious, has never the least perception. I ask then, whether Castor and Pollux, thus, with only one soul between them, which thinks and perceives in one, what the other is never conscious of, nor is concerned for, are not two as distinct persons, as Castor and Hercules;[10] or, as Socrates and Plato[11] were? And whether one of them might not be very happy, and

the other very miserable? Just by the same reason, they make the soul and the man two persons, who make the soul think apart, what the man is not conscious of. For, I suppose, nobody will make identity of persons, to consist in the soul's being united to the very same numerical particles of matter: for if that be necessary to identity, 'twill be impossible, in that constant flux of the particles of our bodies, that any man should be the same person, two days, or two moments together.

Impossible to convince those that sleep without dreaming, that they think

§13. Thus, methinks, every drowsy nod shakes their doctrine, who teach, that the soul is always thinking. Those, at least, who do at any time *sleep without dreaming*, can never be convinced, that their thoughts are sometimes for four hours busy without their knowing of it; and if they are taken in the very act, waked in the middle of that sleeping contemplation, can give no manner of account of it.

That men dream without remembering it, in vain urged

§14. 'Twill perhaps be said, that the *soul thinks*, even *in* the soundest *sleep, but the memory retains it not.*[12] That the soul in a sleeping man should be this moment busy a thinking, and the next moment in a waking man, not remember, nor be able to recollect one jot of all those thoughts, is very hard to be conceived, and would need some better proof than bare assertion, to make it be believed. For who can without any more ado, but being barely told so, imagine, that the greatest part of men, do, during all their lives, for several hours every day, think of something, which if they were asked, even in the middle of these thoughts, they could remember nothing at all of? Most men, I think, pass a great part of their sleep without dreaming. I once knew a man, that was bred a scholar, and had no bad memory, who told me, he had never dreamed in his life, till he had that fever, he was then newly recovered of, which was about the five or six and twentieth year of his age. I suppose the world affords more such instances: at least everyone's acquaintance will furnish him with examples enough of such, as pass most of their nights without dreaming.

Upon this hypothesis, the thoughts of a sleeping man ought to be most rational

§15. *To think often, and never to retain it so much as one moment, is a very useless sort of thinking*: and the soul in such a state of thinking, does very little if at all, excel that of a looking-glass, which constantly receives variety of images, or ideas, but retains none; they disappear and vanish, and there remain no footsteps of them; the looking-glass is never the better for such ideas, nor the soul for such thoughts. Perhaps it will be said,[13] that in a waking man, the materials of the body are employed, and made use of, in thinking; and that the

memory of thoughts, is retained by the impressions that are made on the brain, and the traces there left after such thinking; but that in the *thinking of the soul*, which is not perceived *in a sleeping man*, there the soul thinks apart, and *making no use* of the organs of *the body, leaves no impressions on it, and consequently no memory* of such thoughts. Not to mention again the absurdity of two distinct persons, which follows from this supposition, I answer further, that whatever ideas the mind can receive, and contemplate without the help of the body, it is reasonable to conclude, it can retain without the help of the body too, or else the soul, or any separate spirit will have but little advantage by thinking. If it has no memory of its own thoughts; if it cannot lay up them for its use, and be able to recall them upon occasion; if it cannot reflect upon what is past, and make use of its former experiences, reasonings, and contemplations, to what purpose does it think? They, who make the soul a thinking thing, at this rate, will not make it a much more noble being, than those do, whom they condemn, for allowing it to be nothing but the subtlest parts of matter. Characters drawn on dust, that the first breath of wind effaces; or impressions made on a heap of atoms, or animal spirits,[14] are altogether as useful, and render the subject as noble, as the thoughts of a soul that perish in thinking; that once out of sight, are gone forever, and leave no memory of themselves behind them. Nature never makes excellent things, for mean or no uses: and it is hardly to be conceived, that our infinitely wise Creator, should make so admirable a faculty, as the power of thinking, that faculty which comes nearest the excellency of his own incomprehensible being, to be so idly and uselessly employed, at least a fourth part of its time here, as to think constantly, without remembering any of those thoughts, without doing any good to itself or others, or being any way useful to any other part of the creation. If we will examine it, we shall not find, I suppose, the motion of dull and senseless matter, anywhere in the universe, made so little use of, and so wholly thrown away.

On this hypothesis the soul must have ideas not derived from sensation or reflection, of which there is no appearance

§16. 'Tis true, we have sometimes instances of perception, whilst we are *asleep*, and retain the memory of those *thoughts*: but how *extravagant* and incoherent for the most part they are; how little conformable to the perfection and order of a rational being, those who are acquainted with dreams, need not be told. This I would willingly be satisfied in, whether the soul, when it thinks thus apart, and as it were separate from the body, acts less rationally than when conjointly with it, or no: if its separate thoughts be less rational, then these men must say, that the soul owes the perfection of

rational thinking to the body: if it does not, 'tis a wonder that our dreams should be, for the most part, so frivolous and irrational; and that the soul should retain none of its more rational soliloquies and meditations.

If I think when I know it not, nobody else can know it

§17. Those who so confidently tell us, that the soul always actually thinks, I would they would also tell us, what those ideas are,[15] that are in the soul of a child, before, or just at the union with the body, before it hath received any by *sensation*. The *dreams* of sleeping men, *are*, as I take it, all *made up of the waking man's ideas*, though, for the most part, oddly put together. 'Tis strange, if the soul has ideas of its own, that it derived not from *sensation* or *reflection*, (as it must have, if it thought before it received any impressions from the body) that it should never, in its private thinking, (so private, that the man himself perceives it not) retain any of them, the very moment it wakes out of them, and then make the man glad with new discoveries. Who can find it reasonable, that the soul should, in its retirement, during sleep, have so many hours thoughts, and yet never light on any of those ideas it borrowed not from *sensation* or *reflection*; or at least preserve the memory of none, but such, which being occasioned from the body, must needs be less natural to a spirit? 'Tis strange, the soul should never once in a man's whole life, recall over any of its pure, native thoughts, and those ideas it had before it borrowed anything from the body; never bring into the waking man's view, any other ideas, but what have a tange[16] of the cask, and manifestly derive their original from that union. If it always thinks, and so had ideas before it was united, or before it received any from the body, 'tis not to be supposed, but that during sleep, it recollects its native ideas, and during that retirement from communicating with the body, whilst it thinks by itself, the ideas, it is busied about, should be, sometimes at least, those more natural and congenial ones which it had in itself, underived from the body, or its own operations about them: which since the waking man never remembers, we must from this hypothesis conclude, either that the soul remembers something that the man does not; or else that memory belongs only to such ideas, as are derived from the body, or the mind's operations about them.

How knows anyone that the soul always thinks? For if it be not a self-evident proposition, it needs proof

§18. I would be glad also to learn from these men, who so confidently pronounce, that the human soul, or which is all one, that a man always thinks, how they come to know it; nay, *how they come to know that they themselves think, when they themselves do not perceive it.* This I am afraid, is to be sure, without proofs; and to know, without perceiving: 'tis, I suspect,

a confused notion, taken up to serve an hypothesis; and none of those clear truths, that either their own evidence forces us to admit, or common experience makes it impudence to deny. For the most that can be said of it, is, that 'tis possible the soul may always think, but not always retain it in memory: and, I say, it is as possible, that the soul may not always think; and much more probable, that it should sometimes not think, than that it should often think, and that a long while together, and not be conscious to itself the next moment after, that it had thought.

That a man should be busy in thinking, and yet not retain it the next moment, very improbable

§19. To suppose the soul to think, and the man not to perceive it, is, as has been said, to make two persons in one man: and if one considers well these men's way of speaking, one should be led into a suspicion, that they do so. For they who tell us, that the soul always thinks, do never, that I remember, say, that a man always thinks. Can the soul think, and not the man? Or a man think, and not be conscious of it? This perhaps, would be suspected of *jargon* in others. If they say, the man thinks always, but is not always conscious of it; they may as well say, his body is extended, without having parts. For 'tis altogether as intelligible to say, that a body is extended without parts, as that anything *thinks without being conscious of it*, or perceiving, that it does so. They who talk thus, may, with as much reason, if it be necessary to their hypothesis, say, that a man is always hungry, but that he does not always feel it: whereas hunger consists in that very sensation, as thinking consists in being conscious that one thinks. If they say, that a man is always conscious to himself of thinking; I ask, how they know it? Consciousness is the perception of what passes in a man's own mind. Can another man perceive, that I am conscious of anything, when I perceive it not myself? No man's knowledge here, can go beyond his experience. Wake a man out of a sound sleep, and ask him, what he was that moment thinking on? If he himself be conscious of nothing he then thought on, he must be a notable diviner of thoughts, that can assure him, that he was thinking: may he not with more reason assure him, he was not asleep? This is something beyond philosophy; and it cannot be less than revelation, that discovers to another, thoughts in my mind, when I can find none there myself: and they must needs have a penetrating sight, who can certainly see, that I think, when I cannot perceive it myself, and when I declare, that I do not; and yet can see, that dogs or elephants do not think, when they give all the demonstration of it imaginable, except only telling us, that they do so. This some may suspect to be a step beyond the Rosecrucians;[17] it

seeming easier to make oneself invisible to others, than to make another's thoughts visible to me, which are not visible to himself. But 'tis but defining the soul to be a substance, that always thinks, and the business is done. If such definition be of any authority, I know not what it can serve for, but to make many men suspect, that they have no souls at all, since they find a good part of their lives pass away without thinking. For no definitions, that I know, no suppositions of any sect, are of force enough to destroy constant experience; and perhaps, 'tis the affectation of knowing beyond what we perceive, that makes so much useless dispute, and noise, in the world.

No ideas but from sensation or reflection, evident, if we observe children

§20. I see no reason therefore to believe, that the *soul thinks before the senses have furnished it with ideas* to think on; and as those are increased, and retained; so it comes, by exercise, to improve its faculty of thinking, in the several parts of it, as well as afterwards, by compounding those ideas, and reflecting on its own operations, it increases its stock as well as facility, in remembering, imagining, reasoning, and other modes of thinking.

§21. He that will suffer himself, to be informed by observation and experience, and not make his own hypothesis the rule of nature, will find few signs of a soul accustomed to much thinking in a new-born child, and much fewer of any reasoning at all. And yet it is hard to imagine, that the rational soul should think so much, and not reason at all. And he that will consider, that infants, newly come into the world, spend the greatest part of their time in sleep, and are seldom awake, but when either hunger calls for the teat, or some pain, (the most importunate of all sensations) or some other violent impression on the body, forces the mind to perceive, and attend to it. He, I say, who considers this, will, perhaps, find reason to imagine, that a *fœtus in the mother's womb, differs not much from the state of a vegetable*; but passes the greatest part of its time without perception or thought, doing very little, but sleep in a place, where it needs not seek for food, and is surrounded with liquor, always equally soft, and near of the same temper; where the eyes have no light, and the ears, so shut up, are not very susceptible of sounds; and where there is little or no variety, or change of objects, to move the senses.

§22. Follow a *child* from its birth, and observe the alterations that time makes, and you shall find, as the mind by the senses comes more and more to be furnished with ideas, it comes to be more and more awake; thinks more, the more it has matter to think on. After some time, it begins to know the objects, which being most familiar with it, have made lasting

impressions. Thus it comes, by degrees, to know the persons it daily converses with, and distinguish them from strangers; which are instances and effects of its coming to retain and distinguish the ideas the senses convey to it: and so we may observe, how the mind, *by degrees*, improves in these, and *advances* to the exercise of those other faculties of *enlarging*, *compounding*, and *abstracting* its ideas, and of reasoning about them, and reflecting upon all these, of which, I shall have occasion to speak more hereafter.

§23. If it shall be demanded then, *when a man begins to have any ideas?* I think, the true answer is, when he first has any *sensation*. For since there appear not to be any ideas in the mind, before the senses have conveyed any in, I conceive that ideas in the understanding, are coeval with *sensation*; which is such an impression or motion, made in some part of the body, as produces some perception in the understanding. 'Tis about these impressions made on our senses by outward objects, that the mind seems first to employ itself in such operations as we call *perception*, *remembering*, *consideration*, *reasoning*, etc.

The original of all our knowledge

§24. In time, the mind comes to reflect on its own *operations*, about the ideas got by *sensation*, and thereby stores itself with a new set of ideas, which I call ideas of *reflection*. These are the *impressions* that are made on our *senses* by outward objects, that are extrinsical to the mind; and *its own operations*, proceeding from powers intrinsical and proper to itself, which when reflected on by itself, become also objects of its contemplation, are, as I have said, *the original of all knowledge*. Thus the first capacity of human intellect, is, That the mind is fitted to receive the impressions made on it; either, through the *senses*, by outward objects; or by its own operations, when it *reflects* on them. This is the first step a man makes towards the discovery of anything, and the groundwork, whereon to build all those notions, which ever he shall have naturally in this world. All those sublime thoughts, which tower above the clouds, and reach as high as heaven itself, take their rise and footing here: in all that great extent wherein the mind wanders, in those remote speculations, it may seem to be elevated with, it stirs not one jot beyond those ideas, which *sense* or *reflection*, have offered for its contemplation.

In the reception of simple ideas, the understanding is for the most part passive

§25. In this part, the *understanding* is merely *passive*; and whether or no, it will have these beginnings, and as it were materials of knowledge, is not in its own power. For the objects of our senses, do, many of them, obtrude their particular ideas upon our minds, whether we will or no: and the operations

of our minds, will not let us be without, at least some obscure notions of them. No man can be wholly ignorant of what he does, when he thinks. These *simple* ideas, when offered to the mind, *the understanding can* no more refuse to have, nor alter, when they are imprinted, nor blot them out, and make new ones itself, than a mirror can refuse, alter, or obliterate the images or ideas, which, the objects set before it, do therein produce. As the bodies that surround us, do diversely affect our organs, the mind is forced to receive the impressions; and cannot avoid the perception of those ideas that are annexed to them.

CHAPTER II

Of Simple Ideas

Uncompounded appearances

§1. The better to understand the nature, manner, and extent of our knowledge, one thing is carefully to be observed, concerning the ideas we have; and that is, that *some* of them are *simple*, and *some complex*.

Though the qualities that affect our senses, are, in the things themselves, so united and blended, that there is no separation, no distance between them; yet 'tis plain, the ideas they produce in the mind, enter by the senses simple and unmixed. For though the sight and touch often take in from the same object, at the same time, different ideas; as a man sees at once motion and colour; the hand feels softness and warmth in the same piece of wax: yet the simple ideas thus united in the same subject, are as perfectly distinct, as those that come in by different senses. The coldness and hardness, which a man feels in a piece of *ice*, being as distinct ideas in the mind, as the smell and whiteness of a lily; or as the taste of sugar, and smell of a rose: and there is nothing can be plainer to a man, than the clear and distinct perception he has of those simple ideas; which being each in itself uncompounded, contains in it nothing but *one uniform appearance*, or conception in the mind, and is not distinguishable into different ideas.

The mind can neither make nor destroy them

§2. These simple ideas, the materials of all our knowledge, are suggested and furnished to the mind, only by those two ways above mentioned, *viz. sensation* and *reflection*.[c] When the understanding is once stored with these simple ideas, it has the

power to repeat, compare, and unite them even to an almost infinite variety, and so can make at pleasure new complex ideas. But it is not in the power of the most exalted wit, or enlarged understanding, by any quickness or variety of thought, to *invent or frame one new simple idea* in the mind, not taken in by the ways before mentioned: nor can any force of the understanding, *destroy* those that are there. The dominion of man, in this little world of his own understanding, being muchwhat the same, as it is in the great world of visible things; wherein his power, however managed by art and skill, reaches no further, than to compound and divide the materials, that are made to his hand; but can do nothing towards the making the least particle of new matter, or destroying one atom of what is already in being. The same inability, will everyone find in himself, who shall go about to fashion in his understanding any simple idea, not received in by his senses, from external objects; or by reflection from the operations of his own mind about them. I would have anyone try to fancy any taste, which had never affected his palate; or frame the idea of a scent, he had never smelt: and when he can do this I will also conclude, that a blind man hath ideas of colours, and a deaf man true distinct notions of sounds.

§3. This is the reason why, though we cannot believe it impossible to God, to make a creature with other organs, and more ways to convey into the understanding the notice of corporeal things than those five, as they are usually counted, which he has given to man: yet I think, it is *not possible*, for anyone *to imagine* any other *qualities* in bodies, howsoever constituted, whereby they can be taken notice of, besides sounds, tastes, smells, visible and tangible qualities. And had mankind been made with but four senses, the qualities then, which are the object of the fifth sense, had been as far from our notice, imagination, and conception, as now any *belonging to a sixth, seventh, or eighth sense*, can possibly be: which, whether yet some other creatures, in some other parts of this vast, and stupendous universe, may not have, will be a great presumption to deny. He that will not set himself proudly at the top of all things; but will consider the immensity of this fabric, and the great variety, that is to be found in this little and inconsiderable part of it, which he has to do with, may be apt to think, that in other mansions of it, there may be other, and different intelligent beings, of whose faculties, he has as little knowledge or apprehension, as a worm shut up in one drawer of a cabinet, hath of the senses or understanding of a man; such variety and excellency, being suitable to the wisdom and power of the maker. I have here followed the common opinion of man's having but five

senses; though, perhaps, there may be justly counted more; but either supposition serves equally to my present purpose.

CHAPTER III

Of Ideas of One Sense

Division of simple ideas

§1. The better to conceive the ideas, we receive from sensation, it may not be amiss for us to consider them, in reference to the different ways, whereby they make their approaches to our minds, and make themselves perceivable by us.

First, then, there are some, which come into our minds *by one sense* only.

Secondly, there are others, that convey themselves into the mind *by more senses than one.*

Thirdly, others that are had from *reflection* only.

Fourthly, there are some that make themselves way, and are suggested to the mind, *by all the ways of sensation and reflection.*

We shall consider them apart under these several heads.

First, there are *some ideas, which have admittance only through one sense*, which is peculiarly adapted to receive them. Thus light and colours, as white, red, yellow, blue; with their several degrees or shades, and mixtures, as green, scarlet, purple, sea-green, and the rest, come in only by the eyes: all kind of noises, sounds, and tones only by the ears: the several tastes and smells, by the nose and palate. And if these organs, or the nerves which are the conduits, to convey them from without to their audience in the brain, the mind's presence-room[1] (as I may so call it) are any of them so disordered, as not to perform their functions, they have no postern[2] to be admitted by; no other way to bring themselves into view, and be perceived by the understanding.

The most considerable of those, belonging to the touch, are heat and cold, and solidity; all the rest, consisting almost wholly in the sensible configuration, as smooth and rough; or else more, or less firm adhesion of the parts, as hard and soft, tough and brittle, are obvious enough.

§2. I think, it will be needless to enumerate all the particular *simple ideas*,

belonging to each sense. Nor indeed is it possible, if we would, there being a great many *more* of them belonging to most of the senses, *than we have names for*. The variety of smells, which are as many almost, if not more than species of bodies in the world, do most of them want names. *Sweet* and *stinking* commonly serve our turn for these ideas, which in effect, is little more than to call them pleasing or displeasing; though the smell of a rose, and violet, both sweet, are certainly very distinct ideas. Nor are the different tastes that by our palates we receive ideas of, much better provided with names. Sweet, bitter, sour, harsh, and salt, are almost all the epithets we have to denominate that numberless variety of relishes, which are to be found distinct, not only in almost every sort of creatures, but in the different parts of the same plant, fruit, or animal. The same may be said of colours and sounds. I shall therefore in the account of simple ideas, I am here giving, content myself to set down only such, as are most material to our present purpose, or are in themselves less apt to be taken notice of, though they are very frequently the ingredients of our complex ideas, amongst which, I think, I may well account solidity; which therefore I shall treat of in the next chapter.

CHAPTER IV

Of Solidity

We receive this idea from touch

§1. The idea of *solidity* we receive by our touch; and it arises from the resistance which we find in body, to the entrance of any other body into the place it possesses, till it has left it. There is no idea, which we receive more constantly from sensation, than *solidity*. Whether we move, or rest, in what posture soever we are, we always feel something under us, that supports us, and hinders our further sinking downwards; and the bodies which we daily handle, make us perceive, that whilst they remain between them, they do by an insurmountable force, hinder the approach of the parts of our hands that press them. That which thus hinders the approach of two bodies, when they are moving one towards another, I call *solidity*. I will not dispute, whether this acceptation of the word *solid* be nearer to its original signification, than that which mathematicians use

it in:[1] it suffices, that I think, the common notion of solidity will allow, if not justify, this use of it; but if anyone think it better to call it *impenetrability*, he has my consent. Only I have thought the term *solidity*, the more proper to express this idea, not only because of its vulgar use in that sense; but also, because it carries something more of positive in it, than *impenetrability*, which is negative, and is, perhaps, more a consequence of *solidity*, than *solidity* itself. This of all other, seems the idea most intimately connected with, and essential to body, so as nowhere else to be found or imagined, but only in matter: and though our senses take no notice of it, but in masses of matter, of a bulk sufficient to cause a sensation in us; yet the mind, having once got this idea from such grosser sensible bodies, traces it further; and considers it, as well as figure, in the minutest particle of matter, that can exist; and finds it inseparably inherent in body, wherever, or however modified.

Solidity fills space

§2. This is the idea belongs to body, whereby we conceive it *to fill space*. The idea of which filling of space is, that where we imagine any space taken up by a solid substance, we conceive it so to possess it, that it excludes all other solid substances; and, will forever hinder any two other bodies, that move towards one another in a straight line, from coming to touch one another, unless it removes from between them in a line, not parallel to that which they move in. This idea of it, the bodies which we ordinarily handle, sufficiently furnish us with.

Distinct from space

§3. This resistance, whereby it keeps other bodies out of the space which it possesses, is so great, that no force, how great soever, can surmount it. All the bodies in the world, pressing a drop of water on all sides, will never be able to overcome the resistance which it will make, as soft as it is, to their approaching one another, till it be removed out of their way: whereby our idea of *solidity* is *distinguished* both *from pure space*, which is capable neither of resistance nor motion; and from the ordinary idea of *hardness*. For a man may conceive two bodies at a distance, so as they may approach one another, without touching or displacing any solid thing, till their superficies come to meet: whereby, I think, we have the clear idea of space without *solidity*. For (not to go so far as annihilation of any particular body) I ask, whether a man cannot have the idea of the motion of one single body alone, without any other succeeding immediately into its place? I think, 'tis evident he can: the idea of motion in one body, no more including the idea of motion in another, than the idea of a square figure in one body includes the idea of a square figure in another. I do not

ask, whether bodies do so exist, that the motion of one body cannot really be without the motion of another. To determine this either way, is to beg the question for, or against a vacuum. But my question is, whether one cannot have the idea of one body moved, whilst others are at rest? And, I think, this no one will deny: if so, then the place it deserted, gives us the idea of pure space without solidity, whereinto another body may enter, without either resistance or protrusion[2] of anything. When the sucker[3] in a pump is drawn, the space it filled in the tube is certainly the same, whether any other body follows the motion of the sucker or no: nor does it imply a contradiction, that upon the motion of one body, another, that is only contiguous to it, should not follow it. The necessity of such a motion, is built only on the supposition, that the world is full; but not on the distinct ideas of space and solidity: which are as different, as resistance and not resistance, protrusion and not protrusion. And that men have ideas of space without body, their very disputes about a vacuum[4] plainly demonstrate, as is showed in another place.

From hardness

§4. *Solidity* is hereby also *differenced from hardness*, in that solidity consists in repletion, and so an utter exclusion of other bodies out of the space it possesses; but hardness, in a firm cohesion of the parts of matter, making up masses of a sensible bulk, so that the whole does not easily change its figure. And indeed hard and soft are names that we give to things, only in relation to the constitutions of our own bodies; that being generally called hard by us, which will put us to pain, sooner than change figure by the pressure of any part of our bodies; and that, on the contrary, soft, which changes the situation of its parts upon an easy, and unpainful touch.

But this difficulty of changing the situation of the sensible parts amongst themselves, or of the figure of the whole, gives no more solidity to the hardest body in the world, than to the softest; nor is an adamant[5] one jot more solid than water. For though the two flat sides of two pieces of marble, will more easily approach each other, between which there is nothing but water or air, than if there be a diamond between them: yet it is not, that the parts of the diamond are more solid than those of water, or resist more; but because the parts of water, being more easily separable from each other, they will by a side-motion be more easily removed, and give way to the approach of the two pieces of marble: but if they could be kept from making place, by that side-motion, they would eternally hinder the approach of these two pieces of marble, as much as the diamond; and 'twould be as impossible by any force, to surmount their resistance, as to surmount the

resistance of the parts of a diamond. The softest body in the world will as invincibly resist the coming together of any two other bodies, if it be not put out of the way, but remain between them, as the hardest that can be found, or imagined. He that shall fill a yielding soft body well with air or water, will quickly find its resistance: and he that thinks, that nothing but bodies, that are hard, can keep his hands from approaching one another, may be pleased to make a trial, with the air enclosed in a football. The experiment, I have been told was made at Florence,[6] with a hollow globe of gold filled with water, and exactly closed, further shows the solidity of so soft a body as water. For the golden globe thus filled, being put into a press, which was driven by the extreme force of screws, the water made itself way through the pores of that very close metal, and finding no room for a nearer approach of its particles within, got to the outside, where it rose like a dew, and so fell in drops, before the sides of the globe could be made to yield to the violent compression of the engine, that squeezed it.

On solidity depends impulse, resistance, and protrusion

§5. By this idea of solidity, is the extension of body distinguished from the extension of space. The extension of body being nothing, but the cohesion or continuity of solid, separable, moveable parts; and the extension of space, the continuity of unsolid, inseparable, and immoveable parts. *Upon the solidity of bodies* also *depends their mutual impulse, resistance, and protrusion.*[7] Of pure space then, and solidity, there are several (amongst which, I confess myself one) who persuade themselves, they have clear and distinct ideas; and that they can think on space, without anything in it, that resists, or is protruded by body. This is the idea of pure space, which they think they have as clear, as any idea they can have of the extension of body; the idea of the distance, between the opposite parts of a concave superficies, being equally as clear, without, as with the idea of any solid parts between; and on the other side, they persuade themselves, that they have, distinct from that of pure space, the idea of something that fills space, that can be protruded by the impulse of other bodies, or resist their motion. If there be others, that have not these two ideas distinct but confound them, and make but one of them, I know not, how men, who have the same idea, under different names, or different ideas, under the same name, can, in that case, talk with one another, any more than a man, who not being blind, or deaf, has distinct ideas of the colour of scarlet, and the sound of a trumpet, could discourse concerning scarlet-colour with the blind man, I mention in another place,[8] who fancied, that the idea of scarlet was like the sound of a trumpet.

What it is §6. If anyone asks me, *what this solidity is*, I send him to his senses to inform him: let him put a flint, or a football between his hands; and then endeavour to join them, and he will know. If he thinks this not a sufficient explication of solidity, what it is, and wherein it consists; I promise to tell him, what it is, and wherein it consists, when he tells me what thinking is, or wherein it consists; or explain to me, what extension or motion is, which, perhaps, seems much easier. The simple ideas we have are such, as experience teaches them us; but if beyond that, we endeavour, by words, to make them clearer in the mind, we shall succeed no better, than if we went about to clear up the darkness of a blind man's mind, by talking; and to discourse into him the ideas of light and colours. The reason of this, I shall show, in another place.

CHAPTER V

Of Simple Ideas of Divers Senses

The ideas we get by more than one sense, are of *space*, or *extension*, *figure*, *rest*, and *motion*: for these make perceivable impressions, both on the eyes and touch; and we can receive and convey into our minds the ideas of the extension, figure, motion, and rest of bodies, both by seeing and feeling. But having occasion to speak more at large of these in another place, I here only enumerate them.

CHAPTER VI

Of Simple Ideas of Reflection

Are the operations of the mind about its other ideas §1. The mind receiving the ideas, mentioned in the foregoing chapters, from without, when it turns its view inward upon itself, and observes its own actions about those ideas it has, takes from thence other ideas, which are as capable to be the

objects of its contemplation, as any of those it received from foreign things.

The idea of perception, and idea of willing, we have from reflection

§2. The two great and principal actions of the mind, which are most frequently considered, and which are so frequent, that everyone that pleases, may take notice of 'em in himself, are these two:

perception, or *thinking*, and
volition, or *willing*.

The power of thinking is called the *understanding*, and the power of volition is called the *will*, and these two powers or abilities in the mind are denominated *faculties*. Of some of the modes of these simple ideas of reflection, such as are *remembrance*, *discerning*, *reasoning*, *judging*, *knowledge*, *faith*, etc. I shall have occasion to speak hereafter.

CHAPTER VII

Of Simple Ideas of both Sensation and Reflection

Pleasure and pain

§1. There be other simple ideas, which convey themselves into the mind, by all the ways of sensation and reflection, *viz.*

pleasure, or *delight*, and its opposite.
pain, or *uneasiness*.
power.
existence.
unity.

§2. *Delight*, or *uneasiness*, one or other of them join themselves to almost all our ideas, both of sensation and reflection: and there is scarce any affection of our senses from without, any retired thought of our mind within, which is not able to produce in us *pleasure* or *pain*. By *pleasure* and *pain*, I would be understood to signify, whatsoever delights or molests us; whether it arises from the thoughts of our minds, or anything operating on our bodies. For whether we call it satisfaction, delight, pleasure, happiness, *etc.* on the one side; or uneasiness, trouble, pain, torment, anguish, misery, *etc.*

on the other, they are still but different degrees of the same thing, and belong to the ideas of *pleasure* and *pain*, delight, or uneasiness; which are the names I shall most commonly use for those two sorts of ideas.

§3. The infinite wise author of our being, having given us the power over several parts of our bodies, to move or keep them at rest, as we think fit; and also by the motion of them, to move ourselves, and other contiguous bodies, in which consists all the actions of our body: having also given a power to our minds, in several instances, to choose, amongst its ideas, which it will think on, and to pursue the inquiry of this or that subject with consideration and attention, to excite us to these actions of thinking and motion, that we are capable of, has been pleased to join to several thoughts, and several sensations, a *perception* of *delight*. If this were wholly separated from all our outward sensations, and inward thoughts, we should have no reason to prefer one thought or action, to another; negligence, to attention; or motion to rest. And so we should neither stir our bodies, nor employ our minds; but let our thoughts (if I may so call it) run adrift, without any direction or design; and suffer the ideas of our minds, like unregarded shadows, to make their appearances there, as it happened, without attending to them. In which state, man, however furnished with the faculties of understanding and will, would be a very idle unactive creature, and pass his time only in a lazy lethargic dream. It has therefore pleased our wise creator, to annex to several objects, and to the ideas which we receive from them, as also to several of our thoughts, a concomitant pleasure, and that in several objects, to several degrees, that those faculties which he had endowed us with, might not remain wholly idle, and unemployed by us.

§4. *Pain* has the same efficacy and use to set us on work, that pleasure has, we being as ready to employ our faculties to avoid that, as to pursue this: only this is worth our consideration, that *pain is often produced by the same objects and ideas, that produce pleasure* in us. This their near conjunction, which makes us often feel pain in the sensations where we expected pleasure, gives us new occasion of admiring the wisdom and goodness of our maker, who designing the preservation of our being, has annexed pain to the application of many things to our bodies, to warn us of the harm that they will do; and as advices to withdraw from them. But he not designing our preservation barely, but the preservation of every part and organ in its perfection, hath, in many cases, annexed pain to those very ideas, which delight us. Thus heat, that is very agreeable to us in one degree, by a little greater increase of it, proves no ordinary torment; and the most pleasant of all sensible

objects, light itself, if there be too much of it, if increased beyond a due proportion to our eyes, causes a very painful sensation. Which is wisely and favourably so ordered by nature, that when any object does, by the vehemency, of its operation, disorder the instruments of sensation whose structures cannot but be very nice and delicate, we might by the pain, be warned to withdraw, before the organ be quite put out of order, and so be unfitted for its proper functions for the future. The consideration of those objects that produce it, may well persuade us, that this is the end or use of pain. For though great light be insufferable to our eyes, yet the highest degree of darkness does not at all disease them; because that causing no disorderly motion in it, leaves that curious[1] organ unharmed, in its natural state. But yet excess of cold, as well as heat, pains us; because it is equally destructive to that temper, which is necessary to the preservation of life, and the exercise of the several functions of the body, and which consists in a moderate degree of warmth; or, if you please, a motion of the insensible parts of our bodies, confined within certain bounds.

§5. Beyond all this, we may find another reason *why* God hath scattered up and down *several degrees of pleasure and pain, in all the things that environ and affect us*; and blended them together, in almost all that our thoughts and senses have to do with; that we finding imperfection, dissatisfaction, and want of complete happiness, in all the enjoyments which the creatures can afford us, might be led to seek it in the enjoyment of him, 'with whom there is fulness of joy, and at whose right hand are pleasures for evermore'.[2]

§6. Though what I have here said, may not, perhaps, make the *ideas of pleasure and pain* clearer to us, than our own experience does, which is the only way that we are capable of having them; yet the consideration of the reason, why they are annexed to so many other ideas, serving to give us due sentiments of the wisdom and goodness of the sovereign disposer of all things, may not be unsuitable to the main end of these inquiries: the knowledge and veneration of Him, being the chief end of all our thoughts, and the proper business of all understandings.

Existence and unity

§7. *Existence* and *unity*, are two other ideas, that are suggested to the understanding, by every object without, and every idea within. When ideas are in our minds, we consider them as being actually there, as well as we consider things to be actually without us; which is, that they exist, or have *existence*: and whatever we can consider as one thing, whether a real being, or idea, suggests to the understanding, the idea of *unity*.

Power

§8. *Power* also is another of those simple ideas which we receive

from *sensation and reflection.* For observing in ourselves, that we can, at pleasure, move several parts of our bodies, which were at rest; the effects also, that natural bodies are able to produce in one another, occurring every moment to our senses, we both these ways get the idea of *power.*

Succession §9. Besides these, there is another idea, which though suggested by our senses, yet is more constantly offered us, by what passes in our own minds; and that is the idea of *succession.* For if we look immediately into ourselves, and reflect on what is observable there, we shall find our ideas always, whilst we are awake, or have any thought passing in train, one going, and another coming, without intermission.

Simple ideas the materials of all our knowledge

§10. These, if they are not all, are at least (as I think) the most considerable of those *simple* ideas which the mind has, and out of which is made all its other knowledge; all which it receives only by the two forementioned ways of *sensation* and *reflection.*

Nor let anyone think these too narrow bounds for the capacious mind of man to expatiate[3] in, which takes its flight further than the stars, and cannot be confined by the limits of the world; that extends its thoughts often, even beyond the utmost expansion of matter, and makes excursions into that incomprehensible inane.[4] I grant all this, but desire anyone to assign any *simple* idea, which is not *received from* one of *those inlets* before-mentioned, or any *complex idea* not *made out of those simple ones.* Nor will it be so strange, to think these few simple ideas sufficient to employ the quickest thought, or largest capacity; and to furnish the materials of all that various knowledge, and more various fancies and opinions of all mankind, if we consider how many words may be made out of the various composition of twenty-four letters; or if going one step further, we will but reflect on the variety of combinations may be made, with barely one of the above-mentioned ideas, *viz.* number, whose stock is inexhaustible, and truly infinite: and what a large and immense field, doth extension alone afford the mathematicians?

CHAPTER VIII

Some further Considerations concerning our Simple Ideas

Positive ideas from privative causes

§1. Concerning the simple ideas of sensation 'tis to be considered, that whatsoever is so constituted in nature, as to be able, by affecting our senses, to cause any perception in the mind, doth thereby produce in the understanding a simple idea; which, whatever be the external cause of it, when it comes to be taken notice of, by our discerning faculty, it is by the mind looked on and considered there, to be a real *positive* idea in the understanding, as much as any other whatsoever; though perhaps, the cause of it be but a privation in the subject.

§2. Thus the idea of heat and cold, light and darkness, white and black, motion and rest, are equally clear and *positive* ideas in the mind; though, perhaps, some of *the causes* which produce them, are barely *privations* in those subjects, from whence our senses derive those ideas. These the understanding, in its view of them, considers all as distinct positive ideas, without taking notice of the causes that produce them; which is an inquiry not belonging to the idea, as it is in the understanding; but to the nature of the things existing without us. These are two very different things, and carefully to be distinguished; it being one thing to perceive, and know the idea of white or black, and quite another to examine what kind of particles they must be, and how ranged in the superficies,[1] to make any object appear white or black.

§3. A painter or dyer, who never inquired into their causes, hath the ideas of white and black, and other colours, as clearly, perfectly, and distinctly in his understanding, and perhaps more distinctly, than the philosopher,[2] who hath busied himself in considering their natures, and thinks he knows how far either of them is in its cause positive or privative; and the *idea of black* is no less *positive* in his mind, than that of white, *however the cause* of that colour in the external object, may *be only a privation.*[3]

§4. If it were the design of my present undertaking, to inquire into the natural causes and manner of perception, I should offer this as a reason *why a privative cause might*, in some cases at least, *produce a positive idea, viz.* that all sensation being produced in us, only by different degrees and modes of

motion in our animal spirits,[4] variously agitated by external objects, the abatement of any former motion, must as necessarily produce a new sensation, as the variation or increase of it; and so introduce a new idea, which depends only on a different motion of the animal spirits in that organ.

§5. But whether this be so, or no, I will not here determine, but appeal to everyone's own experience, whether the shadow of a man, though it consists of nothing but the absence of light (and the more the absence of light is, the more discernible is the shadow) does not, when a man looks on it, cause as clear and positive an idea in his mind, as a man himself, though covered over with clear Sunshine? And the picture of a shadow, is a positive thing. Indeed, we have *negative names*, which stand not directly for positive ideas, but for their absence, such as *insipid*, *silence*, *nihil*,[5] *etc.* which words denote positive ideas; *v.g. taste*, *sound*, *being*, with a signification of their absence.

§6. And thus one may truly be said to see darkness. For supposing a hole perfectly dark, from whence no light is reflected, 'tis certain one may see the figure of it, or it may be painted; or whether the ink, I write with, makes any other idea, is a question. The privative causes I have here assigned of positive ideas, are according to the common opinion; but in truth, it will be hard to determine, whether there be really any ideas from a privative cause, till it be determined, *whether rest be any more a privation than motion.*

Ideas in the mind, qualities in bodies

§7. To discover the nature of our ideas the better, and to discourse of them intelligibly, it will be convenient to distinguish them, as they are ideas or perceptions in our minds; and as they are modifications of matter in the bodies that cause such perceptions in us; that so we *may not* think (as perhaps usually is done) that they are exactly the images and *resemblances* of something inherent in the subject; most of those of sensation being in the mind no more the likeness of something existing without us, than the names, that stand for them are the likeness of our ideas, which yet upon hearing, they are apt to excite in us.

§8. Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call *idea*; and the power to produce any idea in our mind, I call *quality* of the subject wherein that power is. Thus a snowball having the power to produce in us the ideas of *white*, *cold*, and *round*, the powers to produce those ideas in us, as they are in the snowball, I call *qualities*; and as they are sensations, or perceptions, in our understandings, I call them *ideas*; which ideas, if I speak of sometimes,

as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us.

Primary qualities

§9. Qualities thus considered in bodies are, first such as are utterly inseparable from the body, in what estate soever it be; such as in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as sense constantly finds in every particle of matter, which has bulk enough to be perceived, and the mind finds inseparable from every particle of matter, though less than to make itself singly be perceived by our senses. *v.g.* take a grain of wheat, divide it into two parts, each part has still *solidity*, *extension*, *figure*, and *mobility*; divide it again, and it retains still the same qualities: and so divide it on, till the parts become insensible, they must retain still each of them all those qualities. For division (which is all that a mill,[6] or pestle,[7] or any other body, does upon another, in reducing it to insensible parts) can never take away either solidity, extension, figure, or mobility from any body, but only makes two, or more distinct separate masses of matter, of that which was but one before; all which distinct masses, reckoned as so many distinct bodies, after division make a certain number. These I call *original* or *primary qualities* of body, which I think we may observe to produce simple ideas in us, *viz.* solidity, extension, figure, motion, or rest, and number.

§10. *Secondly*, such *qualities*, which in truth are nothing in the objects themselves, but powers to produce various sensations in us by their *primary qualities*, *i.e.* by the bulk, figure, texture, and motion of their insensible parts, as colours, sounds, tastes, *etc.* These I call *secondary qualities*. To these might be added a third sort which are allowed to be barely powers, though they are as much real qualities in the subject, as those which I, to comply with the common way of speaking, call *qualities*, but for distinction *secondary qualities*. For the power in fire to produce a new colour, or consistency in wax or clay by its primary qualities, is as much a quality in fire, as the power it has to produce in me a new idea or sensation of warmth or burning, which I felt not before, by the same primary qualities, *viz.* the bulk, texture and motion of its insensible parts.

How primary qualities produce their ideas

§11. The next thing to be considered, is how *bodies* produce ideas in us, and that is manifestly *by impulse*, the only way which we can conceive bodies operate in.[8]

§12. If then external objects be not united to our minds, when they produce ideas in it; and yet we perceive *these original qualities* in such of them as singly fall under our senses, 'tis evident, that some motion must be thence

continued by our nerves, or animal spirits, by some parts of our bodies, to the brains, or the seat of sensation, there to *produce in our minds the particular ideas we have of them.* And since the extension, figure, number, and motion of bodies of an observable bigness, may be perceived at a distance *by* the sight, 'tis evident some singly imperceptible bodies must come from them to the eyes, and thereby convey to the brain some *motion*, which produces these ideas, which we have of them in us.

How secondary

§13. After the same manner, that the ideas of these original qualities are produced in us, we may conceive, that the *ideas of secondary qualities* are also *produced*, viz. *by the operation of insensible particles on our senses.* For it being manifest, that there are bodies, and good store of bodies, each whereof are so small, that we cannot, by any of our senses, discover either their bulk, figure, or motion, as is evident in the particles of the air and water, and other extremely smaller than those, perhaps, as much smaller than the particles of air, or water, as the particles of air or water, are smaller than peas or hail-stones. Let us suppose at present, that the different motions and figures, bulk and number of such particles, affecting the several organs of our senses, produce in us those different sensations, which we have from the colours and smells of bodies, *v.g.* that a violet, by the impulse of such insensible particles of matter of peculiar figures, and bulks, and in different degrees and modifications of their motions, causes the ideas of the blue colour, and sweet scent of that flower to be produced in our minds. It being no more impossible, to conceive, that God should annex such ideas to such motions, with which they have no similitude; than that he should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which that idea hath no resemblance.

§14. What I have said concerning *colours* and *smells*, may be understood also of *tastes*, and *sounds*, *and other the like sensible qualities*; which, whatever reality we by mistake, attribute to them, are in truth nothing in the objects themselves, but powers to produce various sensations in us, and *depend on those primary qualities*, *viz.* bulk, figure, texture, and motion of parts; as I have said.

Ideas of primary qualities are resemblances; of secondary, not

§15. From whence I think it is easy to draw this observation, That the *ideas of primary qualities* of bodies, *are resemblances* of them, and their patterns do really exist in the bodies themselves; but the ideas, *produced* in us *by* these *secondary qualities*, *have no resemblance* of them at all. There is nothing like our ideas, existing in the bodies themselves. They are in the bodies, we denominate from them, only

a power to produce those sensations in us: and what is sweet, blue, or warm in idea, is but the certain bulk, figure, and motion of the insensible parts in the bodies themselves, which we call so.

§16. *Flame* is denominated *hot* and *light*; *snow*, *white* and *cold*; and *manna*,[9] *white* and *sweet*, from the ideas they produce in us. Which qualities are commonly thought to be the same in those bodies, that those ideas are in us, the one the perfect resemblance of the other, as they are in a mirror; and it would by most men be judged very extravagant, if one should say otherwise. And yet he, that will consider, that *the same fire*, that at one distance *produces* in us the sensation of *warmth*, does at a nearer approach, produce in us the far different sensation of *pain*, ought to bethink himself, what reason he has to say, that his idea of *warmth*, which was produced in him by the fire, is actually *in the fire*; and his idea of *pain*, which the same fire produced in him the same way, is *not* in the *fire*. Why is whiteness and coldness in snow, and pain not, when it produces the one and the other idea in us; and can do neither, but by the bulk, figure, number, and motion of its solid parts?

§17. The particular *bulk, number, figure, and motion of the parts of fire, or snow, are really in them*, whether anyone's senses perceive them or no: and therefore they may be called *real qualities*, because they really exist in those bodies. But *light, heat, whiteness*, or *coldness, are no more really in them, than sickness or pain is in* manna. Take away the sensation of them; let not the eyes see light, or colours, nor the ears hear sounds; let the palate not taste, nor the nose smell, and all colours, tastes, odours, and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, *i.e.* bulk, figure, and motion of parts.

§18. A piece of *manna* of a sensible bulk, is able to produce in us the idea of a round or square figure; and, by being removed from one place to another, the idea of motion. This idea of motion represents it, as it really is in the *manna* moving: a circle or square are the same, whether in idea or existence; in the mind, or in the *manna*: and this, both *motion and figure are really in the manna*, whether we take notice of them or no: this everybody is ready to agree to. Besides, *manna* by the bulk, figure, texture, and motion of its parts, has a power to produce the sensations of sickness, and sometimes of acute pains, or gripings in us. That these ideas of *sickness and pain are not in the* manna, but effects of its operations on us, and are nowhere when we feel them not: this also everyone readily agrees to. And yet men are hardly to be brought to think, that *sweetness and whiteness are not really in manna*; which

are but the effects of the operations of *manna*, by the motion, size, and figure of its particles on the eyes and palate; as the pain and sickness caused by *manna*, are confessedly nothing, but the effects of its operations on the stomach and guts, by the size, motion, and figure of its insensible parts; (for by nothing else can a body operate, as has been proved:) as if it could not operate on the eyes and palate, and thereby produce in the mind particular distinct ideas, which in itself it has not, as well as we allow it can operate on the guts and stomach, and thereby produce distinct ideas, which in itself it has not. These ideas being all effects of the operations of *manna*, on several parts of our bodies, by the size, figure, number, and motion of its parts, why those produced by the eyes and palate, should rather be thought to be really in the *manna*, than those produced by the stomach and guts; or why the pain and sickness, ideas that are the effects of *manna*, should be thought to be nowhere, when they are not felt; and yet the sweetness and whiteness, effects of the same *manna* on other parts of the body, by ways equally as unknown, should be thought to exist in the *manna*, when they are not seen nor tasted, would need some reason to explain.

§19. Let us consider the red and white colours in *porphyry*:[10] hinder light but from striking on it, and its colours vanish; it no longer produces any such ideas in us: upon the return of light, it produces these appearances on us again. Can anyone think any real alterations are made in the *porphyry*, by the presence or absence of light; and that those ideas of whiteness and redness, are really in *porphyry* in the light, when 'tis plain *it has no colour in the dark*? It has, indeed, such a configuration of particles, both night and day, as are apt by the rays of light rebounding from some parts of that hard stone, to produce in us the idea of redness, and from others the idea of whiteness: but whiteness or redness are not in it at any time, but such a texture, that hath the power to produce such a sensation in us.

§20. Pound an almond, and the clear white *colour* will be altered into a dirty one, and the sweet *taste* into an oily one. What real alteration can the beating of the pestle make in any body, but an alteration of the *texture* of it?

§21. Ideas being thus distinguished and understood, we may be able to give an account, how the same water, at the same time, may produce the idea of cold by one hand, and of heat by the other: whereas it is impossible, that the same water, if those ideas were really in it, should at the same time be both hot and cold. For if we imagine *warmth*, as it is *in our hands*, to be *nothing but a certain sort and degree of motion in the minute particles of our nerves, or*

animal spirits,[11] we may understand, how it is possible, that the same water may at the same time produce the sensation of heat in one hand, and cold in the other; which yet figure never does, that never producing the idea of a square by one hand, which has produced the idea of a globe by another. But if the sensation of heat and cold, be nothing but the increase or diminution of the motion of the minute parts of our bodies, caused by the corpuscles of any other body, it is easy to be understood, that if that motion be greater in one hand, than in the other; if a body be applied to the two hands, which has in its minute particles a greater motion, than in those of one of the hands, and a less, than in those of the other, it will increase the motion of the one hand, and lessen it in the other, and so cause the different sensations of heat and cold, that depend thereon.

§22. I have in what just goes before, been engaged in physical inquiries a little further than perhaps I intended. But it being necessary, to make the nature of sensation a little understood, and to make the *difference between the qualities in bodies, and the ideas produced by them in the mind*, to be distinctly conceived, without which it were impossible to discourse intelligibly of them; I hope, I shall be pardoned this little excursion into natural philosophy,[12] it being necessary in our present inquiry, to distinguish the *primary*, and *real qualities* of bodies, which are always in them, (*viz.* solidity, extension, figure, number, and motion, or rest; and are sometimes perceived by us, *viz.* when the bodies they are in, are big enough singly to be discerned) from those *secondary* and *imputed qualities*, which are but the powers of several combinations of those primary ones, when they operate, without being distinctly discerned; whereby we also may come to know what ideas are, and what are not resemblances of something really existing in the bodies, we denominate from them.

Three sorts of qualities in bodies

§23. The *qualities* then that are in *bodies* rightly considered, are of *three sorts*.

First, the *bulk, figure, number, situation*, and *motion, or rest* of their solid parts; those are in them, whether we perceive them or no; and when they are of that size, that we can discover them, we have by these an idea of the thing, as it is in itself, as is plain in artificial things. These I call *primary qualities*.

Secondly, the *power* that is in any body, *by* reason of *its* insensible *primary qualities*, to operate after a peculiar manner on any of our senses, and thereby *produce in us* the *different ideas* of several colours, sounds, smells, tastes, *etc.* These are usually called sensible qualities.

Thirdly, the *power* that is in any body, *by* reason of the particular constitution

of *its primary qualities, to* make such a *change* in the *bulk, figure, texture, and motion of another body*, as to make it operate on our senses, differently from what it did before. Thus the Sun has a power to make wax white, and fire to make lead fluid. These *are* usually called powers.

The first of these, as has been said, I think, may be properly called *real original*, or *primary qualities*, because they are in the things themselves, whether they are perceived or no; and upon their different modifications it is, that the secondary qualities depend.

The other two, are only powers to act differently upon other things, which powers result from the different modifications of those primary qualities.

The 1st. are resemblances. The 2nd. thought resemblances, but are not. The 3rd. neither are, nor are thought so

§24. But though *these two later sorts of qualities are powers barely*, and nothing but powers, relating to several other bodies, and resulting from the different modifications of the original qualities; yet they are generally otherwise thought of. For *the second sort, viz.* the powers to produce several ideas in us by our senses, *are looked upon as real qualities, in the things* thus affecting us: but *the third sort are called, and esteemed barely powers, v.g.* the idea of heat, or light, which we receive by our eyes, or touch from the Sun, are commonly thought *real qualities*, existing in the Sun, and something more than mere powers in it. But when we consider the Sun, in reference to wax, which it melts or blanches,[13] we look upon the whiteness and softness produced in the wax, not as qualities in the Sun, but effects produced by *powers* in it: whereas, if rightly considered, these qualities of light and warmth, which are perceptions in me when I am warmed, or enlightened by the Sun, are no otherwise in the Sun, than the changes made in the wax, when it is blanched or melted, are in the Sun. They are all of them equally powers in the Sun, depending on its primary qualities; whereby it is able in the one case, so to alter the bulk, figure, texture, or motion of some of the insensible parts of my eyes, or hands, as thereby to produce in me the idea of light or heat; and in the other, it is able so to alter the bulk, figure, texture, or motion of the insensible parts of the wax, as to make them fit to produce in me the distinct ideas of white and fluid.

§25. The reason, *why the one are ordinarily taken for real qualities, and the other only for bare powers*, seems to be, because the ideas we have of distinct colours, sounds, *etc.* containing nothing at all in them, of bulk, figure, or motion, we are not apt to think them the effects of these primary qualities, which appear not to our senses, to operate in their production; and with which,

they have not any apparent congruity, or conceivable connexion. Hence it is, that we are so forward to imagine, that those ideas are the resemblances of something really existing in the objects themselves: since sensation discovers nothing of bulk, figure, or motion of parts in their production; nor can reason show, how bodies by their bulk, figure, and motion, should produce in the mind the ideas of blue, or yellow, *etc.* But in the other case, in the operations of bodies, changing the qualities one of another, we plainly discover, that the quality produced, hath commonly no resemblance with anything in the thing producing it; wherefore we look on it as a bare effect of power. For though receiving the idea of heat, or light, from the Sun, we are apt to think, 'tis a perception and resemblance of such a quality in the Sun: yet when we see wax, or a fair face, receive change of colour from the Sun, we cannot imagine, that to be the reception or resemblance of anything in the Sun, because we find not those different colours in the Sun itself. For our senses, being able to observe a likeness, or unlikeness of sensible qualities in two different external objects, we forwardly enough conclude the production of any sensible quality in any subject, to be an effect of bare power, and not the communication of any quality, which was really in the efficient, when we find no such sensible quality in the thing that produced it. But our senses, not being able to discover any unlikeness between the idea produced in us, and the quality of the object producing it, we are apt to imagine, that our ideas are resemblances of something in the objects, and not the effects of certain powers, placed in the modification of their primary qualities, with which primary qualities the ideas produced in us have no resemblance.

Secondary qualities twofold; first, immediately perceivable; secondly, mediately perceivable

§26. To conclude, beside those before-mentioned *primary qualities* in bodies, *viz.* bulk, figure, extension, number, and motion of their solid parts; all the rest whereby we take notice of bodies, and distinguish them one from another, are nothing else, but several powers in them, depending on those primary qualities; whereby they are fitted, either by immediately operating on our bodies, to produce several different ideas in us; or else by operating on other bodies, so to change their primary qualities, as to render them capable of producing ideas in us, different from what before they did. The former of these, I think, may be called *secondary qualities, immediately perceivable*: the latter, *secondary qualities, mediately perceivable.*

CHAPTER IX

Of Perception

It is the first simple idea of reflection

§1. *Perception*, as it is the first faculty of the mind, exercised about our ideas; so it is the first and simplest idea we have from reflection, and is by some called thinking in general.[1] Though thinking, in the propriety of the English tongue, signifies that sort of operation of the mind about its ideas, wherein the mind is active; where it, with some degree of voluntary attention, considers anything. For in bare naked *perception*, the mind is, for the most part, only passive; and what it perceives, it cannot avoid perceiving.

Perception is only when the mind receives the impression

§2. *What perception is*, everyone will know better by reflecting on what he does himself, when he sees, hears, feels, *etc.* or thinks, than by any discourse of mine. Whoever reflects on what passes in his own mind, cannot miss it: and if he does not reflect, all the words in the world, cannot make him have any notion of it.

§3. This is certain, that whatever alterations are made in the body, if they reach not the mind; whatever impressions are made on the outward parts, if they are not taken notice of within, there is no perception. Fire may burn our bodies, with no other effect, than it does a billet,[2] unless the motion be continued to the brain, and there the sense of heat, or idea of pain, be produced in the mind, wherein consists *actual perception.*

§4. How often may a man observe in himself, that whilst his mind is intently employed in the contemplation of some objects; and curiously surveying some ideas that are there, it takes no notice of impressions of sounding bodies, made upon the organ of hearing, with the same alteration, that uses to be for the producing the idea of sound? A sufficient impulse there may be on the organ; but it not reaching the observation of the mind, there follows no perception: and though the motion, that uses to produce the idea of sound, be made in the ear, yet no sound is heard. Want of sensation in this case, is not through any defect in the organ, or that the man's ears are less affected, than at other times, when he does hear: but that which uses to produce the idea, though conveyed in by the usual organ, not being taken notice of in the understanding, and so imprinting no idea on the mind, there follows no sensation. *So that wherever there is*

sense, or *perception, there some idea is actually produced, and present in the understanding.*

Children, though they have ideas, in the womb, have none innate

§5. Therefore I doubt not but *children*, by the exercise of their senses about objects, that affect them *in the womb, receive some few ideas*, before they are born, as the unavoidable effects, either of the bodies that environ them, or else of those wants or diseases they suffer; amongst which, (if one may conjecture concerning things not very capable of examination) I think the ideas of hunger and warmth, are two: which probably are some of the first that children have, and which they scarce ever part with again.

§6. But though it be reasonable to imagine, that *children* receive some ideas before they come into the world, yet these simple ideas are *far from* those *innate principles*, which some contend for, and we above have rejected. These here mentioned, being the effects of sensation, are only from some affections of the body, which happen to them there, and so depend on something exterior to the mind; no otherwise differing in their manner of production from other ideas derived from sense, but only in the precedency of time: whereas those innate principles are supposed to be quite of another nature; not coming into the mind by any accidental alterations in, or operations on the body; but, as it were, original characters impressed upon it, in the very first moment of its being and constitution.

Which ideas first, is not evident

§7. As there are some ideas, which we may reasonably suppose may be introduced into the minds of children in the womb, subservient to the necessities of their life, and being there: so after they are born, *those ideas* are the *earliest imprinted, which happen to be the sensible qualities, which first occur* to them; amongst which, light is not the least considerable, nor of the weakest efficacy. And how covetous the mind is, to be furnished with all such ideas, as have no pain accompanying them, may be a little guessed, by what is observable in children new-born, who always turn their eyes to that part from whence the light comes, lay them how you please. But the ideas that are most familiar at first, being various, according to the divers circumstances of children's first entertainment in the world, the order, wherein the several ideas come at first into the mind, is very various, and uncertain also; neither is it much material to know it.

Ideas of sensation often changed by the judgement

§8. We are further to consider concerning perception, that the *ideas we receive by sensation, are often* in grown people *altered by the judgement*, without our taking notice of it. When we set before our eyes a round globe, of any uniform colour, *v.g.* gold, alabaster,[3] or jet,[4] 'tis certain, that the idea thereby imprinted in our mind,

is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes. But we having by use been accustomed to perceive, what kind of appearance convex bodies are wont to make in us; what alterations are made in the reflections of light, by the difference of the sensible figures of bodies, the judgement presently, by an habitual custom, alters the appearances into their causes: so that from that, which truly is variety of shadow or colour, collecting the figure, it makes it pass for a mark of figure, and frames to itself the perception of a convex figure, and an uniform colour; when the idea we receive from thence, is only a plain variously coloured, as is evident in painting. To which purpose I shall here insert a problem of that very ingenious and studious promoter of real knowledge, the learned and worthy Mr Molineux,[5] which he was pleased to send me in a letter some months since; and it is this: 'Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube, and a sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and t'other, which is the cube, which the sphere. Suppose then the cube and sphere placed on a table, and the blind man to be made to see: Quære, whether by his sight, before he touched them, he could now distinguish, and tell, which is the globe, which the cube.' To which the acute and judicious proposer answers: 'Not. For though he has obtained the experience of, how a globe, how a cube affects his touch; yet he has not yet attained the experience, that what affects his touch so or so, must affect his sight so or so: or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye, as it does in the cube.' I agree with this thinking gent. whom I am proud to call my friend, in his answer to this his problem; and am of opinion, that the blind man, at first sight, would not be able with certainty to say, which was the globe, which the cube, whilst he only saw them; though he could unerringly name them by his touch, and certainly distinguish them by the difference of their figures felt. This I have set down, and leave with my reader, as an occasion for him to consider, how much he may be beholding to experience, improvement, and acquired notions, where he thinks, he has not the least use of, or help from them: and the rather, because this observing gent. further adds, that 'having upon the occasion of my book, proposed this to divers very ingenious men, he hardly ever met with one, that at first gave the answer to it, which he thinks true, till by hearing his reasons they were convinced.'

§9. But this is not, I think, usual in any of our ideas, but those received

by *sight*: because sight, the most comprehensive of all our senses, conveying to our minds the ideas of light and colours, which are peculiar only to that sense; and also the far different ideas of space, figure, and motion, the several varieties whereof change the appearances of its proper object, *viz.* light and colours, we bring ourselves by use, to judge of the one by the other. This, in many cases, by a settled habit, in things whereof we have frequent experience, is performed so constantly, and so quick, that we take that for the perception of our sensation, which is an idea formed by our judgement; so that one, *viz.* that of sensation, serves only to excite the other, and is scarce taken notice of itself; as a man who reads or hears with attention and understanding, takes little notice of the characters, or sounds, but of the ideas, that are excited in him by them.

§10. Nor need we wonder, that this is done with so little notice, if we consider, how very *quick* the *actions of the mind* are performed: For as itself is thought to take up no space, to have no extension; so its actions seem to require no time, but many of them seem to be crowded into an instant. I speak this in comparison to the actions of the body. Anyone may easily observe this in his own thoughts, who will take the pains to reflect on them. How, as it were in an instant, do our minds, with one glance, see all the parts of a demonstration, which may very well be called a long one, if we consider the time it will require to put it into words, and step by step show it another? *Secondly*, we shall not be so much surprised, that this is done in us with so little notice, if we consider, how the facility which we get of doing things, by a custom of doing, makes them often pass in us without our notice. *Habits*, especially such as are begun very early, come, at last, to *produce actions in us, which often escape our observation.* How frequently do we, in a day, cover our eyes with our eye-lids, without perceiving that we are at all in the dark? Men, that by custom have got the use of a by-word,[6] do almost in every sentence, pronounce sounds, which, though taken notice of by others, they themselves neither hear nor observe. And therefore 'tis not so strange, that our mind should often change the idea of its sensation, into that of its judgement, and make one serve only to excite the other, without our taking notice of it.

Perception puts the difference between animals and inferior beings

§11. This faculty of *perception*, seems to me to be that, which *puts the distinction betwixt the animal kingdom, and the inferior parts of nature.* For however vegetables have, many of them, some degrees of motion, and upon the different application of other bodies to them, do very briskly alter their figures and motions, and so have

obtained the name of sensitive plants,[7] from a motion, which has some resemblance to that, which in animals follows upon sensation: yet, I suppose, it is all bare mechanism; and no otherwise produced, than the turning of a wild oat-beard,[8] by the insinuation of the particles of moisture; or the shortening of a rope, by the affusion[9] of water. All which is done without any sensation in the subject, or the having or receiving any ideas.

§12. *Perception*, I believe, is, in some degree, *in all sorts of animals*; though in some, possibly, the avenues, provided by nature for the reception of sensations are so few, and the perception, they are received with, so obscure and dull, that it comes extremely short of the quickness and variety of sensations, which is in other animals: but yet it is sufficient for, and wisely adapted to, the state and condition of that sort of animals, who are thus made: so that the wisdom and goodness of the maker plainly appears in all the parts of this stupendous fabric, and all the several degrees and ranks of creatures in it.

§13. We may, I think, from the make of an *oyster*, or *cockle*, reasonably conclude, that it has not so many, nor so quick senses, as a man, or several other animals; nor if it had, would it, in that state and incapacity of transferring itself from one place to another, be bettered by them. What good would sight and hearing do to a creature, that cannot move itself to, or from the objects, wherein at a distance it perceives good or evil? And would not quickness of sensation, be an inconvenience to an animal, that must lie still, where chance has once placed it; and there receive the afflux of colder or warmer, clean or foul water, as it happens to come to it?

§14. But yet, I cannot but think, there is some small dull perception, whereby they are distinguished from perfect insensibility. And that this may be so, we have plain instances, even in mankind itself. Take one, in whom decrepit old age has blotted out the memory of his past knowledge, and clearly wiped out the ideas his mind was formerly stored with; and has, by destroying his sight, hearing, and smell quite, and his taste to a great degree, stopped up almost all the passages for new ones to enter; or, if there be some of the inlets yet half open, the impressions made are scarce perceived, or not at all retained. How far such an one (notwithstanding all that is boasted of innate principles) is in his knowledge, and intellectual faculties, above the condition of a cockle, or an oyster, I leave to be considered. And if a man had passed sixty years in such a state, as 'tis possible he might, as

well as three days, I wonder what difference there would have been, in any intellectual perfections, between him, and the lowest degree of animals.

§15. *Perception* then being *the first step and degree towards knowledge, and the inlet of all the materials of it*, the fewer senses any man, as well as any other creature, hath; and the fewer and duller the impressions are, that are made by them; and the duller the faculties are, that are employed about them, the more remote are they from that knowledge, which is to be found in some men. But this being in great variety of degrees, (as may be perceived amongst men) cannot certainly be discovered in the several species of animals, much less in their particular individuals. It suffices me only to have remarked here, that perception is the first operation of all our intellectual faculties, and the inlet of all knowledge into our minds. And I am apt too to imagine, that it is perception in the lowest degree of it, which puts the boundaries between animals, and the inferior ranks of creatures. But this I mention only as my conjecture by the by, it being indifferent to the matter in hand, which way the learned shall determine of it. *Perception the inlet of knowledge*

CHAPTER X

Of Retention

§1. The next faculty of the mind, whereby it makes a further progress towards knowledge, is that which I call *retention*, or the keeping of those simple ideas, which from sensation or reflection it hath received. This is done two ways. First, by keeping the idea, which is brought into it, for some time actually in view, which is called *contemplation*. *Contemplation*

§2. The other way of retention is the power to revive again in our minds those ideas, which after imprinting have disappeared, or have been as it were laid aside out of sight: and thus we do, when we conceive heat or light, yellow or sweet, the object being removed. This is *memory*, which is as it were the storehouse of our ideas. For the narrow mind of man, not being capable of having many ideas under view and consideration at once, it was necessary to have a repository, to lay up those ideas, which at another time it might have use of. But our ideas being nothing, but actual perceptions *Memory*

in the mind, which cease to be anything, when there is no perception of them, this *laying up* of our ideas in the repository of the memory, signifies no more but this, that the mind has a power, in many cases, to revive perceptions, which it has once had, with this additional perception annexed to them, that it has had them before. And in this sense it is, that our ideas are said to be in our memories, when indeed, they are actually nowhere, but only there is an ability in the mind, when it will, to revive them again; and as it were paint them anew on itself, though some with more, some with less difficulty; some more lively, and others more obscurely.[1] And thus it is, by the assistance of this faculty, that we are said to have all those ideas in our understandings, which though we do not actually contemplate, yet we can bring in sight, and make appear again, and be the objects of our thoughts, without the help of those sensible qualities, which first imprinted them there.

Attention, repetition, pleasure, and pain fix ideas

§3. *Attention* and *repetition help* much to the fixing any ideas in *the memory*: but those, which naturally at first make the deepest, and most lasting impression, are those, which are accompanied with *pleasure* or *pain*. The great business of the senses, being to make us take notice of what hurts, or advantages the body, it is wisely ordered by nature (as has been shown) that pain should accompany the reception of several ideas; which supplying the place of consideration and reasoning in children, and acting quicker than consideration in grown men, makes both the young and old avoid painful objects, with that haste, which is necessary for their preservation; and in both settles in the memory a caution for the future.

Ideas fade in the memory

§4. Concerning the several *degrees* of lasting, wherewith ideas are imprinted on the *memory*, we may observe, that some of them have been produced in the understanding, by an object affecting the senses once only, and no more than once: others, that have more than once offered themselves to the senses, have yet been little taken notice of; the mind, either heedless, as in children, or otherwise employed, as in men, intent only on one thing, not setting the stamp deep into itself. And in some, where they are set on with care and repeated impressions, either through the temper of the body, or some other default, the memory is very weak: in all these cases, ideas in the mind quickly fade, and often vanish quite out of the understanding, leaving no more footsteps, or remaining characters of themselves, than shadows do flying over fields of corn; and the mind is as void of them, as if they never had been there.

§5. Thus many of those ideas, which were produced in the minds of children, in the beginning of their sensation (some of which, perhaps, as of some pleasures and pains, were before they were born, and others in their infancy) if in the future course of their lives, they are not repeated again, are quite lost, without the least glimpse remaining of them. This may be observed in those, who by some mischance have lost their sight, when they were very young, in whom the ideas of colours, having been but slightly taken notice of, and ceasing to be repeated, do quite wear out; so that some years after, there is no more notion, nor memory of colours left in their minds, than in those of people born blind. The memory in some men, 'tis true, is very tenacious, even to a miracle: but yet there seems to be a constant decay of all our ideas, even of those which are struck deepest, and in minds the most retentive; so that if they be not sometimes renewed by repeated exercise of the senses, or reflection on those kind of objects, which at first occasioned them, the print wears out, and at last there remains nothing to be seen. Thus the ideas, as well as children, of our youth, often die before us: and our minds represent to us those tombs, to which we are approaching; where though the brass and marble remain, yet the inscriptions are effaced by time, and the imagery moulders away. *The pictures drawn in our minds, are laid in fading colours*; and if not sometimes refreshed, vanish and disappear. How much the constitution of our bodies, and the make of our animal spirits,[2] are concerned in this, and whether the temper of the brain make this difference, that in some it retains the characters drawn on it like marble, in others like freestone,[3] and in others little better than sand, I shall not here inquire, though it may seem probable, that the constitution of the body does sometimes influence the memory; since we oftentimes find a disease quite strip the mind of all its ideas, and the flames of a fever, in a few days, calcine[4] all those images to dust and confusion, which seemed to be as lasting, as if graved in marble.

Constantly repeated ideas can scarce be lost

§6. But concerning the *ideas* themselves, it is easy to remark, that those that are *oftenest refreshed* (amongst which are those that are conveyed into the mind by more ways than one) by a frequent return of the objects or actions that produce them, *fix themselves best in the memory*, and remain clearest and longest there; and therefore those, which are of the original qualities of bodies, *viz. solidity, extension, figure, motion*, and *rest*, and those that almost constantly affect our bodies, as *heat* and *cold*; and those which are the affections of all kinds of beings, as *existence, duration*, and *number*, which almost every object that affects our senses,

every thought which employs our minds, bring along with them: these, I say, and the like ideas, are seldom quite lost, whilst the mind retains any ideas at all.

In remembering the mind is often active

§7. In this secondary perception, as I may so call it, or viewing again the ideas, that are lodged *in* the *memory, the mind is oftentimes more than barely passive*, the appearance of those dormant pictures, depending sometimes on the will. The mind very often sets itself on work in search of some hidden idea, and turns, as it were, the eye of the soul upon it; though sometimes too they start up in our minds of their own accord, and offer themselves to the understanding; and very often are roused and tumbled out of their dark cells, into open daylight, by some turbulent and tempestuous passion; our affections bringing ideas to our memory which had otherwise lain quiet and unregarded. This further is to be observed, concerning ideas lodged in the memory, and upon occasion revived by the mind, that they are not only (as the word *revive* imports) none of them new ones; but also that the mind takes notice of them, as of a former impression, and renews its acquaintance with them, as with ideas it had known before. So that though ideas formerly imprinted are not all constantly in view, yet in remembrance they are constantly known to be such, as have been formerly imprinted, *i.e.* in view, and taken notice of before by the understanding.

Two defects in the memory, oblivion and slowness

§8. *Memory*, in an intellectual creature, is necessary in the next degree to perception. It is of so great moment, that where it is wanting, all the rest of our faculties are in a great measure useless: And we in our thoughts, reasonings, and knowledge, could not proceed beyond present objects, were it not for the assistance of our memories, wherein there may be *two defects*.

First, that it *loses the idea* quite, and so far it produces perfect ignorance. For since we can know nothing further, than we have the idea of it, when that is gone, we are in perfect *ignorance*.

Secondly, that it moves slowly, and *retrieves not the ideas*, that it has, and are laid up in store, *quick enough* to serve the mind upon occasions. This, if it be to a great degree, is *stupidity*; and he, who through this default in his memory, has not the ideas, that are really preserved there, ready at hand, when need and occasion calls for them, were almost as good be without them quite, since they serve him to little purpose. The dull man, who loses the opportunity, whilst he is seeking in his mind for those ideas, that should serve his turn, is not much more happy in his knowledge, than one that is perfectly

ignorant. 'Tis the business therefore of the memory to furnish to the mind those dormant ideas, which it has present occasion for, and in the having them ready at hand on all occasions, consists that which we call *invention*, *fancy*, and quickness of parts.

§9. These are defects, we may observe, in the memory of one man compared with another. There is another defect, which we may conceive to be in the memory of man in general, compared with some superior created intellectual beings, which in this faculty may so far excel man, that they may have constantly in view the whole scene of all their former actions, wherein no one of the thoughts they have ever had, may slip out of their sight. The omniscience of God, who knows all things past, present, and to come, and to whom the thoughts of men's hearts always lie open, may satisfy us of the possibility of this. For who can doubt, but God may communicate to those glorious spirits, his immediate attendants, any of his perfections, in what proportion he pleases, as far as created finite beings can be capable. 'Tis reported of that prodigy of parts, Monsieur Pascal, that, till the decay of his health had impaired his memory, he forgot nothing of what he had done, read, or thought in any part of his rational age.[5] This is a privilege so little known to most men, that it seems almost incredible to those, who, after the ordinary way, measure all others by themselves: But yet when considered, may help us to enlarge our thoughts towards greater perfections of it in superior ranks of spirits. For this of Mr Pascal was still with the narrowness, that human minds are confined to here, of having great variety of ideas only by succession, not all at once: whereas the several degrees of angels[6] may probably have larger views, and some of them be endowed with capacities able to retain together, and constantly set before them, as in one picture, all their past knowledge at once. This, we may conceive, would be no small advantage to the knowledge of a thinking man; if all his past thoughts, and reasonings could be always present to him. And therefore we may suppose it one of those ways, wherein the knowledge of separate spirits may exceedingly surpass ours.

Brutes have memory

§10. This faculty of laying up, and retaining the ideas, that are brought into the mind, several *other animals* seem to have, to a great degree, as well as man. For to pass by other instances, birds learning of tunes, and the endeavours one may observe in them, to hit the notes right, put it past doubt with me, that they have perception, and retain ideas in their memories, and use them for patterns. For it seems to me impossible, that they should endeavour to conform their voices to notes (as 'tis plain

they do) of which they had no ideas. For though I should grant sound may mechanically cause a certain motion of the animal spirits,[7] in the brains of those birds, whilst the tune is actually playing; and that motion may be continued on to the muscles of the wings, and so the bird mechanically be driven away by certain noises, because this may tend to the bird's preservation: yet that can never be supposed a reason, why it should cause mechanically, either whilst the tune was playing, much less after it has ceased, such a motion in the organs of the bird's voice, as should conform it to the notes of a foreign sound, which imitation can be of no use to the bird's preservation. But which is more, it cannot with any appearance of reason, be supposed (much less proved) that birds, without sense and memory, can approach their notes, nearer and nearer by degrees, to a tune played yesterday; which if they have no idea of in their memory, is now nowhere, nor can be a pattern for them to imitate, or which any repeated essays[8] can bring them nearer to. Since there is no reason why the sound of a pipe should leave traces in their brains, which not at first, but by their after-endeavours, should produce the like sounds; and why the sounds they make themselves, should not make traces which they should follow, as well as those of the pipe, is impossible to conceive.

CHAPTER XI

Of Discerning, and other Operations of the Mind

No knowledge without it §1. Another faculty, we may take notice of in our minds, is that of *discerning* and distinguishing between the several ideas it has. It is not enough to have a confused perception of something in general: unless the mind had a distinct perception of different objects, and their qualities, it would be capable of very little knowledge; though the bodies that affect us, were as busy about us, as they are now, and the mind were continually employed in thinking. On this faculty of distinguishing one thing from another, depends the *evidence and certainty* of several, even very general propositions, which have passed for innate truths; because men overlooking the true cause, why those propositions find universal assent, impute it wholly to native uniform impressions; whereas it in truth *depends upon this clear*

discerning faculty of the mind, whereby it perceives two ideas to be the same, or different. But of this more hereafter.

The difference of wit and judgement

§2. How much the imperfection of accurately discriminating ideas one from another lies, either in the dullness, or faults of the organs of sense; or want of acuteness, exercise, or attention in the understanding; or hastiness and precipitancy, natural to some tempers, I will not here examine: it suffices to take notice, that this is one of the operations, that the mind may reflect on, and observe in itself. It is of that consequence to its other knowledge, that so far as this faculty is in itself dull, or not rightly made use of, for the distinguishing one thing from another; so far our notions are confused, and our reason and judgement disturbed or misled. If in having our ideas in the memory ready at hand, consists quickness of parts; in this of having them unconfused, and being able nicely to distinguish one thing from another, where there is but the least difference, consists, in a great measure, the exactness of judgement, and clearness of reason, which is to be observed in one man above another. And hence, perhaps, may be given some reason of that common observation, that men who have a great deal of wit, and prompt memories, have not always the clearest judgement, or deepest reason. For *wit* lying most in the assemblage of ideas, and putting those together with quickness and variety, wherein can be found any resemblance or congruity, thereby to make up pleasant pictures, and agreeable visions in the fancy: *judgement*, on the contrary, lies quite on the other side, in separating carefully, one from another, ideas, wherein can be found the least difference, thereby to avoid being misled by similitude, and by affinity to take one thing for another. This is a way of proceeding quite contrary to metaphor and allusion, wherein for the most part, lies that entertainment and pleasantry of wit, which strikes so lively on the fancy, and therefore so acceptable to all people; because its beauty appears at first sight, and there is required no labour of thought, to examine what truth or reason there is in it. The mind without looking any further, rests satisfied with the agreeableness of the picture, and the gaiety of the fancy: and it is a kind of an affront to go about to examine it, by the severe rules of truth, and good reason; whereby it appears, that it consists in something, that is not perfectly conformable to them.

Clearness alone hinders confusion

§3. To the well distinguishing our ideas, it chiefly contributes, they be *clear and determinate*: and when they are so, it *will not breed any confusion* or mistake about them, though the senses should (as sometimes they do) convey them from the same object differently, on different occasions,

and so seem to err. For though a man in a fever should from sugar have a bitter taste, which at another time would produce a sweet one; yet the idea of bitter in that man's mind, would be as clear and distinct from the idea of sweet, as if he had tasted only gall.[1] Nor does it make any more confusion between the two ideas of sweet and bitter, that the same sort of body produces at one time one, and at another time another idea, by the taste, than it makes a confusion in two ideas of white and sweet, or white and round, that the same piece of sugar produces them both in the mind at the same time. And the ideas of orange-colour and azure, that are produced in the mind by the same parcel of the infusion of *lignum nephriticum*,[2] are no less distinct ideas, than those of the same colours, taken from two very different bodies.

Comparing

§4. The *comparing* them one with another, in respect of extent, degrees, time, place, or any other circumstances, is another operation of the mind about its ideas, and is that upon which depends all that large tribe of ideas, comprehended under *relation*; which of how vast an extent it is, I shall have occasion to consider hereafter.

Brutes compare, but imperfectly

§5. How far brutes partake in this faculty, is not easy to determine; I imagine they have it not in any great degree: for though they probably have several ideas distinct enough, yet it seems to me to be the prerogative of human understanding, when it has sufficiently distinguished any ideas, so as to perceive them to be perfectly different, and so consequently two, to cast about and consider in what circumstances they are capable to be compared. And therefore, I think, *beasts compare* not their ideas, further than some sensible circumstances annexed to the objects themselves. The other power of comparing, which may be observed in men, belonging to general ideas, and useful only to abstract reasonings, we may probably conjecture beasts have not.

Compounding

§6. The next operation we may observe in the mind about its ideas, is *composition*; whereby it puts together several of those simple ones it has received from sensation and reflection, and combines them into complex ones. Under this of composition, may be reckoned also that of *enlarging*; wherein though the composition does not so much appear as in more complex ones, yet it is nevertheless a putting several ideas together, though of the same kind. Thus by adding several units together, we make the idea of a dozen; and putting together the repeated ideas of several perches, we frame that of furlong.[3]

§7. In this also, I suppose, *brutes* come far short of men. For though they take in, and retain together several combinations of simple ideas, as possibly the shape, smell, and voice of his master, make up the complex idea a dog has of him; or rather are so many distinct marks whereby he knows him: yet, I *do not* think they do of themselves ever compound them, and *make complex ideas*. And perhaps even where we think they have complex ideas, 'tis only one simple one that directs them in the knowledge of several things, which possibly they distinguish less by their sight, than we imagine. For I have been credibly informed, that a bitch will nurse, play with, and be fond of young foxes, as much as, and in place of her puppies, if you can but get them once to suck her so long, that her milk may go through them. And those animals, which have a numerous brood of young ones at once, appear not to have any knowledge of their number; for though they are mightily concerned for any of their young, that are taken from them whilst they are in sight or hearing, yet if one or two of them be stolen from them in their absence, or without noise, they appear not to miss them; or to have any sense, that their number is lessened. *Brutes compound but little*

§8. When children have, by repeated sensations, got ideas fixed in their memories, they begin, by degrees, to learn the use of signs. And when they have got the skill to apply the organs of speech to the framing of articulate sounds, they begin to make *use of words*, to signify their ideas to others: these verbal signs they sometimes borrow from others, and sometimes make themselves, as one may observe among the new and unusual names children often give to things in their first use of language. *Naming*

§9. The use of words then being to stand as outward marks of our internal ideas, and those ideas being taken from particular things, if every particular idea that we take in, should have a distinct name, names must be endless. To prevent this, the mind makes the particular ideas, received from particular objects, to become general; which is done by considering them as they are in the mind such appearances, separate from all other existences, and the circumstances of real existence, as time, place, or any other concomitant ideas. This is called *abstraction*, whereby ideas taken from particular beings, become general representatives of all of the same kind; and their names general names, applicable to whatever exists conformable to such abstract ideas. Such precise, naked appearances in the mind, without considering, how, whence, or with what others they came there, the understanding lays up (with names commonly annexed to them) as the standards to rank real existences into sorts, as they agree with *Abstraction*

these patterns, and to *denominate* them accordingly. Thus the same colour being observed today in chalk or snow, which the mind yesterday received from milk, it considers that appearance alone, makes it a representative of all of that kind; and having given it the name *whiteness*, it by that sound signifies the same quality wheresoever to be imagined or met with; and thus universals, whether ideas or terms, are made.

Brutes abstract not §10. If it may be doubted, whether *beasts* compound and enlarge their ideas that way, to any degree: This, I think, I may be positive in, that the power of *abstracting* is not at all in them; and that the having of general ideas, is that which puts a perfect distinction betwixt man and brutes; and is an excellency which the faculties of brutes do by no means attain to. For it is evident, we observe no footsteps in them, of making use of general signs for universal ideas; from which we have reason to imagine, that they have not the faculty of abstracting, or making general ideas, since they have no use of words, or any other general signs.

§11. Nor can it be imputed to their want of fit organs, to frame articulate sounds that they have no use, or knowledge of general words; since many of them, we find, can fashion such sounds, and pronounce words distinctly enough, but never with any such application. And on the other side, men, who through some defect in the organs, want words, yet fail not to express their universal ideas by signs, which serve them instead of general words, a faculty which we see beasts come short in. And therefore I think we may suppose, that 'tis in this, that the species of *brutes* are discriminated from man; and 'tis that proper difference wherein they are wholly separated, and which at last widens to so vast a distance. For if they have any ideas at all, and are not bare machines (as some[4] would have them) we cannot deny them to have some reason. It seems as evident to me, that they do some of them in certain instances reason, as that they have sense; but it is only in particular ideas, just as they received them from their senses. They are the best of them tied up within those narrow bounds, and *have not* (as I think) the faculty to enlarge them by any kind of *abstraction.*

Idiots and madmen §12. How far *idiots* are concerned in the want or weakness of any, or all of the foregoing faculties, an exact observation of their several ways of faltering, would no doubt discover. For those who either perceive but dully, or retain the ideas that come into their minds but ill, who cannot readily excite or compound them, will have little matter to think on. Those who cannot distinguish, compare, and abstract, would hardly be able to understand, and make use of language, or judge, or reason to any tolerable

degree: but only a little, and imperfectly, about things present, and very familiar to their senses. And indeed, any of the forementioned faculties, if wanting, or out of order, produce suitable defects in men's understandings and knowledge.

§13. In fine, the defect in *naturals*[5] seems to proceed from want of quickness, activity, and motion, in the intellectual faculties, whereby they are deprived of reason: whereas *madmen*, on the other side, seem to suffer by the other extreme. For they do not appear to me to have lost the faculty of reasoning: but having joined together some ideas very wrongly, they mistake them for truths; and they err as men do that argue right from wrong principles. For by the violence of their imaginations, having taken their fancies for realities, they make right deductions from them. Thus you shall find a distracted man fancying himself a king, with a right inference, require suitable attendance, respect, and obedience: others who have thought themselves made of glass,[6] have used the caution necessary to preserve such brittle bodies. Hence it comes to pass, that a man, who is very sober, and of a right understanding in all other things, may in one particular be as frantic, as any in Bedlam;[7] if either by any sudden very strong impression, or long fixing his fancy upon one sort of thoughts, incoherent ideas have been cemented together so powerfully, as to remain united. But there are degrees of madness, as of folly; the disorderly jumbling ideas together, is in some more, and some less. In short, herein seems to lie the difference between idiots and madmen, That madmen put wrong ideas together, and so make wrong propositions, but argue and reason right from them: but idiots make very few or no propositions, and reason scarce at all.

Method

§14. These, I think, are the first faculties and operations of the mind, which it makes use of in understanding; and though they are exercised about all its ideas in general; yet the instances, I have hitherto given, have been chiefly in simple ideas; and I have subjoined the explication of these faculties of the mind, to that of simple ideas, before I come to what I have to say, concerning complex ones, for these following reasons:

First, because several of these faculties being exercised at first principally about simple ideas, we might, by following nature in its ordinary method, trace and discover them in their rise, progress, and gradual improvements.

Secondly, because observing the faculties of the mind, how they operate about simple ideas, which are usually in most men's minds much more

clear, precise, and distinct, than complex ones, we may the better examine and learn how the mind abstracts, denominates, compares, and exercises its other operations, about those which are complex, wherein we are much more liable to mistake.

Thirdly, because these very operations of the mind about ideas, received from *sensation*, are themselves, when reflected on, another set of ideas, derived from that other source of our knowledge which I call *reflection*; and therefore fit to be considered in this place, after the simple ideas of *sensation*. Of compounding, comparing, abstracting, *etc.* I have but just spoken, having occasion to treat of them more at large in other places.

These are the beginning of human knowledge

§15. And thus I have given a short, and, I think, true *history of the first beginnings of human knowledge*; whence the mind has its first objects, and by what steps it makes its progress to the laying in, and storing up those ideas, out of which is to be framed all the knowledge it is capable of; wherein I must appeal to experience and observation, whether I am in the right: the best way to come to truth, being to examine things as really they are, and not to conclude they are, as we fancy of ourselves, or have been taught by others to imagine.

Appeal to experience

§16. To deal truly, *this is the only way*, that I can discover, *whereby* the *ideas* of things *are brought into the understanding*: if other men have either innate ideas, or infused principles, they have reason to enjoy them; and if they are sure of it, it is impossible for others to deny them the privilege that they have above their neighbours. I can speak but of what I find in myself, and is agreeable to those notions; which, if we will examine the whole course of men in their several ages, countries, and educations, seem to depend on those foundations which I have laid, and to correspond with this method, in all the parts and degrees thereof.

Dark room

§17. I pretend not to teach, but to inquire; and therefore cannot but confess here again, that external and internal sensation, are the only passages that I can find, of knowledge, to the understanding. These alone, as far as I can discover, are the windows by which light is let into this *dark room*. For, methinks, the *understanding* is not much unlike a closet wholly shut from light, with only some little opening left, to let in external visible resemblances, or ideas of things without; would the pictures coming into such a dark room but stay there, and lie so orderly as to be found upon occasion, it would very much resemble the understanding of a man, in reference to all objects of sight, and the ideas of them.

These are my guesses concerning the means whereby the understanding

comes to have, and retain simple ideas, and the modes of them, with some other operations about them. I proceed now to examine some of these simple ideas and their modes, a little more particularly.

CHAPTER XII

Of Complex Ideas

Made by the mind out of simple ones

§1. We have hitherto considered those ideas, in the reception whereof, the mind is only passive, which are those simple ones received from *sensation* and *reflection* before-mentioned, whereof the mind cannot make one to itself, nor have any idea which does not wholly consist of them. But as the mind is wholly passive in the reception of all its simple ideas, so it exerts several acts of its own, whereby out of its simple ideas, as the materials and foundations of the rest, the other are framed. The acts of the mind wherein it exerts its power over its simple ideas are chiefly these three, 1. combining several simple ideas into one compound one, and thus all complex ideas are made. 2. The second is bringing two ideas, whether simple or complex, together; and setting them by one another, so as to take a view of them at once, without uniting them into one; by which way it gets all its ideas of relations. 3. The third is separating them from all other ideas that accompany them in their real existence; this is called *abstraction*: And thus all its general ideas are made. This shows man's power, and its way of operation, to be muchwhat the same in the material and intellectual world. For the materials in both being such as he has no power over, either to make or destroy, all that man can do, is either to unite them together, or to set them by one another, or wholly separate them. I shall here begin with the first of these in the consideration of complex ideas, and come to the other two in their due places. As simple ideas are observed to exist in several combinations united together; so the mind has a power to consider several of them united together, as one idea; and that not only as they are united in external objects, but as itself has joined them. Ideas thus made up of several simple ones put together, I call *complex*; such as are *beauty*, *gratitude*, *a man*, *an army*, *the universe*; which though complicated of various simple ideas, or *complex*

ideas made up of simple ones, yet are, when the mind pleases, considered each by itself, as one entire thing, and signified by one name.

Made voluntarily

§2. In this faculty of repeating and joining together its ideas, the mind has great power in varying and multiplying the objects of its thoughts, infinitely beyond what *sensation* or *reflection* furnished it with: but all this still confined to those simple ideas, which it received from those two sources, and which are the ultimate materials of all its compositions. For simple ideas are all from things themselves; and of these *the mind can* have no more, nor other than what are suggested to it. It can have no other ideas of sensible qualities than what come from without by the senses; nor any ideas of other kind of operations of a thinking substance, than what it finds in itself: but when it has once got these simple ideas, it is not confined barely to observation, and what offers itself from without; it can, by its own power, put together those ideas it has, and *make new complex ones*, which it never received so united.

Are either modes, substances, or relations

§3. *Complex* ideas, however compounded and decompounded, though their number be infinite, and the variety endless, wherewith they fill, and entertain the thoughts of men; yet, I think, they may be all reduced under these three heads.

1. *Modes.*
2. *Substances.*
3. *Relations.*

Modes

§4. First, *modes* I call such complex ideas, which however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependences on, or affections of substances; such are the ideas signified by the words *triangle, gratitude, murder, etc.* And if in this I use the word *mode*, in somewhat a different sense from its ordinary signification, I beg pardon; it being unavoidable in discourses, differing from the ordinary received notions, either to make new words, or to use old words in somewhat a new signification, the latter whereof, in our present case, is perhaps the more tolerable of the two.

Simple and mixed modes

§5. Of these *modes*, there are two sorts, which deserve distinct consideration. First, there are some which are only variations, or different combinations of the same simple idea, without the mixture of any other, as a dozen, or score; which are nothing but the ideas of so many distinct units added together, and these I call *simple modes*, as being contained within the bounds of one simple idea. Secondly, there are others com-

pounded of simple ideas of several kinds, put together to make one complex one; *v.g. beauty*, consisting of a certain composition of colour and figure, causing delight in the beholder; *theft*, which being the concealed change of the possession of anything, without the consent of the proprietor, contains, as is visible, a combination of several ideas of several kinds; and these I call *mixed modes*.

Substances single or collective

§6. Secondly, the ideas of *substances* are such combinations of simple ideas, as are taken to represent distinct particular things subsisting by themselves; in which the supposed, or confused idea of substance, such as it is, is always the first and chief. Thus, if to substance be joined the simple idea of a certain dull whitish colour, with certain degrees of weight, hardness, ductility, and fusibility, we have the idea of *lead*; and a combination of the ideas of a certain sort of figure, with the powers of motion, thought, and reasoning, joined to substance, make the ordinary idea of *a man*. Now, of substances also, there are two sorts of ideas; one of single substances, as they exist separately, as of *a man*, or *a sheep*; the other of several of those put together as an *army* of men, or *flock* of sheep; which *collective ideas of* several *substances* thus put together, are as much each of them one single idea, as that of a man, or an unit.

Relation

§7. Thirdly, the last sort of complex ideas, is that we call *relation*, which consists in the consideration and comparing one idea with another: of these several kinds, we shall treat in their order.

The abstrusest ideas from the two sources

§8. If we will trace the progress of our minds, and with attention observe how it repeats, adds together, and unites its simple ideas received from sensation or reflection, it will lead us further than at first, perhaps, we should have imagined. And, I believe, we shall find, if we warily observe the originals of our notions, that even *the most abstruse ideas*, how remote soever they may seem from sense, or from any operation of our own minds, are yet only such, as the understanding frames to itself, by repeating and joining together ideas, that it had either from objects of sense, or from its own operations about them: so that those even large *and abstract ideas, are derived from sensation, or reflection*, being no other than what the mind, by the ordinary use of its own faculties, employed about ideas received from objects of sense, or from the operations it observes in itself about them, may, and does attain unto. This I shall endeavour to show in the ideas we have of *space*, *time*, and *infinity*, and some few other, that seem the most remote from those originals.

CHAPTER XIII

Of Simple Modes; and first, of the Simple Modes of Space

Simple modes §1. Though in the foregoing part, I have often mentioned simple ideas, which are truly the materials of all our knowledge; yet having treated of them there, rather in the way that they come into the mind, than as distinguished from others more compounded, it will not be, perhaps, amiss to take a view of some of them again under this consideration, and examine those different *modifications of the same idea*; which the mind either finds in things existing, or is able to make within itself, without the help of any extrinsical object, or any foreign suggestion.

Those *modifications of any one simple idea*, (which, as has been said, I call *simple modes*) are as perfectly different and distinct ideas in the mind, as those of the greatest distance or contrariety. For the idea of *two*, is as distinct from that of *one*, as *blueness* from *heat*, or either of them from any number: and yet it is made up only of that simple idea of an unit repeated; and repetitions of this kind joined together, make those distinct *simple modes*, of a *dozen*, a *gross*, a *million*.

Idea of space §2. I shall begin with the *simple idea of space*. I have showed above, *c*.4. that we get the idea of space, both by our sight, and touch; which, I think, is so evident, that it would be as needless, to go to prove, that men perceive, by their sight, a distance between bodies of different colours, or between the parts of the same body; as that they see colours themselves: nor is it less obvious, that they can do so in the dark by feeling and touch.

Space and extension §3. This space considered barely in length between any two beings, without considering anything else between them, is called *distance*: if considered in length, breadth, and thickness, I think, it may be called *capacity*: the term extension, is usually applied to it in what manner soever considered.

Immensity §4. Each different distance, is a different modification of space, and *each idea of any different distance, or space, is a simple mode of this idea*. Men for the use, and by the custom of measuring, settle in their minds the ideas of certain stated lengths, such as are an *inch*, *foot*, *yard*, *fathom*, *mile*, *diameter of the Earth*, etc. which are so many distinct ideas made up only of space.

When any such stated lengths or measures of space are made familiar to men's thoughts, they can in their minds, repeat them as often as they will, without mixing or joining to them the idea of body, or anything else; and frame to themselves the ideas of long, square, or cubic, *feet*, *yards*, or *fathoms*, here amongst the bodies of the universe, or else beyond the utmost bounds of all bodies; and by adding these still one to another, enlarge their idea of space as much as they please. This power of repeating, or doubling any idea we have of any distance, and adding it to the former as often as we will, without being ever able to come to any stop or stint, let us enlarge it as much as we will, is that, which gives us the idea of *immensity*.

Figure

§5. There is another modification of this idea, which is nothing but the relation which the parts of the termination of extension, or circumscribed space have amongst themselves. This the touch discovers in sensible bodies, whose extremities come within our reach; and the eye takes both from bodies and colours, whose boundaries are within its view: where observing how the extremities terminate either in straight lines, which meet at discernible angles; or in crooked lines, wherein no angles can be perceived, by considering these as they relate to one another, in all parts of the extremities of any body or space, it has that idea we call *figure*, which affords to the mind infinite variety. For besides the vast number of different figures, that do really exist in the coherent masses of matter, the stock that the mind has in its power, by varying the idea of space; and thereby making still new compositions, by repeating its own ideas, and joining them as it pleases, is perfectly inexhaustible: And so it can multiply figures *in infinitum*.[1]

§6. For the mind having a power to repeat the idea of any length directly stretched out, and join it to another in the same direction, which is to double the length of that straight line, or else join it to another with what inclination it thinks fit, and so make what sort of angle it pleases: and being able also to shorten any line it imagines, by taking from it one half, or one fourth, or what part it pleases, without being able to come to an end of any such divisions, it can make an angle of any bigness: so also the lines that are its sides, of what length it pleases, which joining again to other lines of different lengths, and at different angles, till it has wholly enclosed any space, it is evident that it can multiply *figures* both in their shape, and capacity, *in infinitum*; all which are but so many different *simple modes of space*.

The same that it can do with straight lines, it can do also with crooked, or crooked and straight together; and the same it can do in lines, it can also in superficies, by which we may be led into further thoughts of the

endless variety of *figures*, that the mind has a power to make, and thereby to multiply the *simple modes of* space.

Place §7. Another idea coming under this head, and belonging to this tribe, is that we call *place*. As in simple space, we consider the relation of distance between any two bodies, or points; so in our idea of *place*, we consider the relation of distance betwixt any thing, and any two or more points, which are considered, as keeping the same distance one with another, and so considered as at rest; for when we find any thing at the same distance now, which it was yesterday from any two or more points, which have not since changed their distance one with another, and with which we then compared it, we say it hath kept the same *place*: but if it hath sensibly altered its distance with either of those points, we say it hath changed its place: though vulgarly speaking in the common notion of *place*, we do not always exactly observe the distance from precise points; but from larger portions of sensible objects, to which we consider the thing placed to bear relation, and its distance from which we have some reason to observe.

§8. Thus a company of chess-men, standing on the same squares of the chess-board, where we left them, we say they are all in the *same place*, or unmoved; though, perhaps, the chess-board hath been in the meantime carried out of one room into another, because we compared them only to the parts of the chess-board, which keep the same distance one with another. The chess-board, we also say, is in the *same place* it was, if it remain in the same part of the cabin, though, perhaps, the ship which it is in, sails all the while: and the ship is said to be in the *same place*, supposing it kept the same distance with the parts of the neighbouring land; though, perhaps, the Earth hath turned round; and so both chess-men, and board, and ship, have every one *changed place*, in respect of remoter bodies, which have kept the same distance one with another. But yet the distance from certain parts of the board, being that which determines the place of the chess-men; and the distance from the fixed parts of the cabin (with which we made the comparison) being that which determined the place of the chess-board, and the fixed parts of the Earth, that by which we determined the place of the ship, these things may be said properly to be in the *same place*, in those respects: though their distance from some other things, which in this matter we did not consider, being varied, they have undoubtedly *changed place* in that respect; and we ourselves shall think so, when we have occasion to compare them with those other.

§9. But this modification of distance, we call *place*, being made by men,

for their common use, that by it they might be able to design the particular position of things, where they had occasion for such designation, men consider and determine of this *place*, by reference to those adjacent things, which best served to their present purpose, without considering other things, which to another purpose, would better *determine the place* of the same thing. Thus in the chess-board, the use of the *designation of* the *place* of each chess-man, being determined only within that chequered piece of wood, t'would cross that purpose, to measure it by anything else: but when these very chess-men are put up in a bag, if anyone should ask, where the black king is, it would be proper to *determine the place* by the parts of the room it was in, and not by the chess-board; there being another use of *designing the place* it is now in, than when in play it was on the chess-board, and so must be determined by other bodies. So if anyone should ask, in what place are the verses, which report the story of Nisus and Eurialus, t'would be very improper to determine this place, by saying, they were in such a part of the Earth, or in Bodley's Library:[2] but the right designation of the place, would be by the parts of Virgil's[3] works; and the proper answer would be, that these verses were about the middle of the ninth book of his *Æneids*; And that they have been always constantly in the same place ever since Virgil was printed: which is true, though the book itself hath moved a thousand times, the use of the idea of place here, being to know only in what part of the book that story is, that so upon occasion, we may know where to find it, and have recourse to it for our use.

§10. That our idea of place is nothing else, but such a relative position of any thing, as I have before mentioned, I think is plain, and will be easily admitted, when we consider, that we can have no idea of the place of the universe, though we can of all the parts of it; because beyond that, we have not the idea of any fixed, distinct, particular beings, in reference to which we can imagine it to have any relation of distance; but all beyond it is one uniform space or expansion, wherein the mind finds no variety, no marks. For to say, that the world is somewhere, means no more, than that it does exist; this, though a phrase, borrowed from place, signifying only its existence, not location; and when one can find out, and frame in his mind clearly and distinctly the place of the universe, he will be able to tell us, whether it moves or stands still in the undistinguishable inane[4] of infinite space; though it be true, that the word place has sometimes a more confused sense, and stands for that space which any body takes up; and so the universe is in a place. The idea therefore of *place*, we have by the same

means that we get the idea of space, (whereof this is but a particular limited, consideration,) *viz.* by our sight and touch; by either of which, we receive into our minds the ideas of extension or distance.

Extension and body not the same

§11. There are some[5] that would persuade us, that *body and extension are the same thing*; who either change the signification of words, which I would not suspect them of, they having so severely condemned the philosophy of others, because it hath been too much placed in the uncertain meaning, or deceitful obscurity of doubtful or insignificant terms. If therefore they mean by *body and extension the same* that other people do, *viz.* by *body*, something that is solid, and extended, whose parts are separable and movable different ways; and by extension, only the space that lies between the extremities of those solid coherent parts, and which is possessed by them, they confound very different ideas one with another. For I appeal to every man's own thoughts, whether the idea of space be not as distinct from that of solidity, as it is from the idea of scarlet colour? 'Tis true, solidity cannot exist without extension, neither can scarlet colour exist without extension; but this hinders not, but that they are distinct ideas. Many ideas require others as necessary to their existence or conception, which yet are very distinct ideas. Motion can neither be, nor be conceived without space; and yet motion is not space, nor space motion: space can exist without it, and they are very distinct ideas; and so, I think, are those of space and solidity. Solidity is so inseparable an idea from body, that upon that depends its filling of space, its contact, impulse, and communication of motion upon impulse. And if it be a reason to prove, that spirit is different from body, because thinking includes not the idea of extension in it; the same reason will be as valid, I suppose, to prove, that *space is not body*, because it includes not the idea of solidity in it; *space and solidity* being *as distinct ideas*, as thinking and extension, and as wholly separable in the mind one from another. *Body* then and *extension*, 'tis evident, are two distinct ideas. For,

§12. *First, extension* includes no solidity, nor resistance to the motion of *body*, as body does.

§13. *Secondly*, the parts of pure space, are inseparable one from the other; so that the continuity cannot be separated, neither really, nor mentally. For I demand of anyone, to remove any part of it from another, with which it is continued, even so much as in thought. To divide and separate actually, is, as I think, by removing the parts one from another, to make two superficies,[6] where before there was a continuity: and to divide mentally, is to make in the mind two superficies, where before there was a continuity,

and consider them as removed one from the other; which can only be done in things considered by the mind, as capable of being separated; and by separation, of acquiring new distinct superficies, which they then have not, but are capable of: but neither of these ways of separation, whether real or mental, is, as I think, compatible to pure *space*.

'Tis true, a man may consider so much of such a *space*, as is answerable or commensurate to a foot, without considering the rest; which is indeed a partial consideration, but not so much as mental separation, or division; since a man can no more mentally divide, without considering two superficies, separate one from the other, than he can actually divide, without making two superficies disjoined one from the other: but a partial consideration is not separating. A man may consider light in the Sun, without its heat; or mobility in body without its extension, without thinking of their separation. One is only a partial consideration, terminating in one alone; and the other is a consideration of both, as existing separately.

§14. *Thirdly*, the parts of pure *space*, are immovable, which follows from their inseparability; *motion* being nothing but change of distance between any two things: But this cannot be between parts that are inseparable; which therefore must needs be at perpetual rest one amongst another.

Thus the determined idea of simple *space* distinguishes it plainly and sufficiently from *body*; since its parts are inseparable, immovable, and without resistance to the motion of body.

The definition of extension explains it not

§15. If anyone ask me, *what* this *space*, I speak of, *is*? I will tell him, when he tells me what his *extension* is. For to say, as is usually done, that extension is to have *partes extra partes*,[7] is to say only, that *extension* is *extension*: For what am I the better informed in the nature of *extension*, when I am told, that *extension is to have parts that are extended, exterior to parts that are extended*, i.e. *extension* consists of extended parts? As if one asking, what a fibre was? I should answer him, that it was a thing made up of several fibres: Would he hereby be enabled to understand what a fibre was, better than he did before? Or rather, would he not have reason to think, that my design was to make sport with him, rather than seriously to instruct him?

Division of beings into bodies and spirits, proves not space and body the same

§16. Those who contend that *space and body are the same*,[8] bring this dilemma.[9] Either this *space* is something, or nothing; if nothing be between two bodies, they must necessarily touch; if it be allowed to be something, they ask, whether it be body or spirit? To which I answer, by another question, who told them,

that there was, or could be nothing but solid beings, which could not think; and thinking beings that were not extended? Which is all they mean by the terms *body* and *spirit*.

Substance which we know not, no proof against space without body

§17. If it be demanded, (as usually it is) whether this *space*, void of *body*, be *substance* or *accident*,[10] I shall readily answer, I know not: nor shall be ashamed to own my ignorance, till they that ask, show me a clear distinct idea of *substance*.

§18. I endeavour, as much as I can, to deliver myself from those fallacies which we are apt to put upon ourselves, by taking words for things. It helps not our ignorance to feign a knowledge, where we have none, by making a noise with sounds, without clear and distinct significations. Names made at pleasure, neither alter the nature of things, nor make us understand them, but as they are signs of, and stand for determined ideas. And I desire those who lay so much stress on the sound of these two syllables, *substance*, to consider, whether applying it, as they do,[11] to the infinite incomprehensible GOD, to finite spirit, and to body, it be in the same sense; and whether it stands for the same idea, when each of those three so different beings are called *substances*? If so, whether it will not thence follow, that God, spirits, and body, agreeing in the same common nature of *substance*, differ not any otherwise, than in a bare different modification of that *substance*; as a tree and a pebble, being in the same sense body, and agreeing in the common nature of body, differ only in a bare modification of that common matter; which will be a very harsh doctrine. If they say, that they apply it to God, finite spirits, and matter, in three different significations,[12] and that it stands for one idea, when GOD is said to be a *substance*; for another, when the soul is called *substance*; and for a third, when a body is called so. If the name *substance*, stands for three several distinct ideas, they would do well to make known those distinct ideas, or at least to give three distinct names to them, to prevent in so important a notion, the confusion and errors that will naturally follow from the promiscuous use of so doubtful a term; which is so far from being suspected to have three distinct, that in ordinary use it has scarce one clear distinct signification: and if they can thus make three distinct ideas of *substance*, what hinders, why another may not make a fourth?

Substance and accidents of little use in philosophy

§19. They who first ran into the notion of *accidents*, as a sort of real beings, that needed something to inhere in, were forced to find out the word *substance*, to support them. Had

the poor Indian philosopher (who imagined that the Earth also wanted something to bear it up) but thought of this word *substance*, he needed not to have been at the trouble to find an elephant to support it, and a tortoise to support his elephant: the word *substance* would have done it effectually. And he that inquired, might have taken it for as good an answer from an Indian philosopher, that *substance*, without knowing what it is, is that which supports the Earth, as we take it for a sufficient answer, and good doctrine, from our European philosophers, that *substance*, without knowing what it is, is that which supports *accidents*. So that of *substance*, we have no idea of what it is, but only a confused obscure one of what it does.

§20. Whatever a learned man may do here, an intelligent American,[13] who inquired into the nature of things, would scarce take it for a satisfactory account, if desiring to learn our architecture, he should be told, that a pillar was a thing supported by a *basis*, and a *basis* something that supported a pillar. Would he not think himself mocked, instead of taught, with such an account as this? And a stranger to them would be very liberally instructed in the nature of books, and the things they contained, if he should be told, that all learned books consisted of paper and letters, and that letters were things inhering in paper, and paper a thing that held forth letters; a notable way of having clear ideas of letters and paper! But were the Latin words *inhærentia*[14] and *substantia*,[15] put into the plain English ones that answer them, and were called *sticking on*, and *under-propping*, they would better discover to us the very great clearness there is in the doctrine of *substance* and *accidents*, and show of what use they are in deciding of questions in philosophy.

A vacuum beyond the utmost bounds of body

§21. But to return to our idea of *space*. If *body* be not supposed infinite, which, I think, no one will affirm, I would ask, whether, if God placed a man at the extremity of corporeal beings, he could not stretch his hand beyond his body? If he could, then he would put his arm, where there was before *space* without *body*; and if there he spread his fingers, there would still be *space* between them without *body*: if he could not stretch out his hand, it must be because of some external hindrance; (for we suppose him alive, with such a power of moving the parts of his body, that he hath now, which is not in itself impossible, if GOD so pleased to have it; or at least it is not impossible for God so to move him:) and then I ask, whether that which hinders his hand from moving outwards, be substance or accident, something or nothing? And when they have resolved that, they will be able to resolve themselves,

what that is, which is, or may be between two bodies at a distance, that is not body, has no solidity. In the meantime, the argument is at least as good, that where nothing hinders, (as beyond the utmost bounds of all bodies) a *body* put into motion may move on, as where there is nothing between, there two bodies must necessarily touch: for pure *space* between, is sufficient to take away the necessity of mutual contact; but bare *space* in the way, is not sufficient to stop motion. The truth is, these men must either own, that they think body infinite, though they are loth to speak it out,[16] or else affirm, that *space* is not *body*. For I would fain meet with that thinking man, that can, in his thoughts, set any bounds to space, more than he can to duration; or by thinking, hope to arrive at the end of either: and therefore if his idea of eternity be infinite, so is his idea of immensity; they are both finite or infinite alike.

The power of annihilation proves a vacuum

§21.[17] Further, those who assert the impossibility of *space* existing without *matter*, must not only make body infinite, but must also deny a power in God to annihilate any part of matter. No one, I suppose, will deny, that God can put an end to all motion that is in matter, and fix all the bodies of the universe in a perfect quiet and rest, and continue them so as long as he pleases. Whoever then will allow, that God can, during such a general rest, annihilate either this book, or the body of him that reads it, must necessarily admit the possibility of a vacuum: for it is evident, that the space, that was filled by the parts of the annihilated body, will still remain, and be a space without body. For the circumambient bodies being in perfect rest, are a wall of adamant,[18] and in that state make it a perfect impossibility for any other body to get into that space. And indeed the necessary motion of one particle of matter, into the place from whence another particle of matter is removed, is but a consequence from the supposition of plenitude; which will therefore need some better proof, than a supposed matter of fact, which experiment can never make out, our own clear and distinct ideas plainly satisfying us, that there is no necessary connexion between *space* and *solidity*, since we can conceive the one without the other. And those who dispute for or against a vacuum, do thereby confess, they have distinct ideas of *vacuum* and *plenum*,[19] i.e. that they have an idea of extension void of solidity, though they deny its existence; or else they dispute about nothing at all. For they who so much alter the signification of words, as to call *extension*, *body*, and consequently make the whole essence of body, to be nothing but pure extension without solidity, must talk absurdly, whenever they speak of *vacuum*, since

it is impossible for extension to be without extension. For *vacuum*, whether we affirm or deny its existence, signifies space without body, whose very existence no one can deny to be possible, who will not make matter infinite, and take from God a power to annihilate any particle of it.

Motion proves a vacuum

§22. But not to go so far as beyond the utmost bounds of body in the universe, nor appeal to God's omnipotency, to find a vacuum, the *motion* of bodies, that are in our view and neighbourhood, seem to me plainly to evince it. For I desire anyone so to divide a solid body, of any dimension he pleases, as to make it possible for the solid parts to move up and down freely every way within the bounds of that superficies,[20] if there be not left in it a void space, as big as the least part into which he has divided the said solid body. And if where the least particle of the body divided, is as big as a mustard-seed, a void space equal to the bulk of a mustard-seed, be requisite to make room for the free motion of the parts of the divided body within the bounds of its superficies, where the particles of matter are 100,000,000 less than a mustard-seed, there must also be a space void of solid matter, as big as 100,000,000 part of a mustard-seed; for if it hold in one, it will hold in the other, and so on *in infinitum*. And let this void space be as little as it will, it destroys the hypothesis of *plenitude*.[21] For if there can be a space void of body, equal to the smallest separate particle of matter now existing in nature, 'tis still space without body; and makes as great a difference between space and body, as if it were μέγα χάσμα,[22] a distance as wide as any in nature. And therefore, if we suppose not the void space necessary to motion, equal to the least parcel of the divided solid matter, but to $\frac{1}{10}$ or $\frac{1}{1000}$ of it, the same consequence will always follow of space, without matter.

The ideas of space and body distinct

§23. But the question being here, whether the *idea of space* or *extension* be *the same with the idea of body*, it is not necessary to prove the real existence of a vacuum, but the idea of it; which 'tis plain men have, when they inquire and dispute, whether there be a vacuum or no? For if they had not the idea of space without body, they could not make a question about its existence: and if their idea of body did not include in it something more than the bare idea of space, they could have no doubt about the plenitude of the world; and t'would be as absurd to demand, whether there were space without body, as whether there were space without space, or body without body, since these were but different names of the same idea.

Extension being inseparable from body, proves it not the same

§24. 'Tis true, the idea of *extension* joins itself so inseparably with all visible, and most tangible qualities, that it suffers us to see no one, or feel very few external objects, without taking in impressions of extension too. This readiness of extension to make itself be taken notice of so constantly with other ideas, has been the occasion, I guess, that some[23] have made the whole essence of *body* to consist in extension; which is not much to be wondered at, since some have had their minds, by their eyes and touch, (the busiest of all our senses) so filled with the idea of extension, and as it were wholly possessed with it, that they allowed no existence to anything that had not extension. I shall not now argue with those men, who take the measure and possibility of all being, only from their narrow and gross imaginations: but having here to do only with those, who conclude the essence of body to be *extension*, because, they say, they cannot imagine any sensible quality of any body without extension, I shall desire them to consider, that had they reflected on their ideas of tastes and smells, as much as on those of sight and touch; nay, had they examined their ideas of hunger and thirst, and several other pains, they would have found, that they included in them no idea of extension at all, which is but an affection of body, as well as the rest discoverable by our senses, which are scarce acute enough to look into the pure essences of things.

§25. If those ideas, which are constantly joined to all others, must therefore be concluded to be the essence of those things which have constantly those ideas joined to them, and are inseparable from them; then unity is without doubt the essence of everything. For there is not any object of sensation or reflection, which does not carry with it the idea of one: but the weakness of this kind of argument, we have already shown sufficiently.

Ideas of space and solidity distinct

§26. To conclude, whatever men shall think concerning the existence of a vacuum, this is plain to me, That we have as clear an *idea of space distinct from solidity*, as we have of solidity distinct from motion, or motion from space. We have not any two more distinct ideas, and we can as easily conceive space without solidity, as we can conceive body or space without motion, though it be never so certain, that neither body nor motion can exist without space. But whether anyone will take space to be only a relation resulting from the existence of other beings at a distance, or whether they will think the words of the most knowing King Solomon,[24] 'The Heaven, and the Heaven of Heavens, cannot contain

Thee'; or those more emphatical ones of the inspired philosopher St Paul,[25] 'In Him we live, move, and have our being,' are to be understood in a literal sense, I leave everyone to consider; only our idea of *space* is, I think, such as I have mentioned, and distinct from that of *body*. For whether we consider in matter itself, the distance of its coherent solid parts, and call it, in respect of those solid parts, *extension*; or whether considering it as lying between the extremities of any body in its several dimensions, we call it *length*, *breadth*, and *thickness*; or else considering it as lying between any two bodies, or positive beings, without any consideration, whether there be any matter or no between, we call it *distance*. However named or considered, it is always the same uniform simple idea of *space*, taken from objects, about which our senses have been conversant, whereof having settled ideas in our minds, we can revive, repeat, and add them one to another as often as we will, and consider the space or distance so imagined, either as filled with solid parts, so that another body cannot come there, without displacing and thrusting out the body that was there before; or else as void of solidity, so that a body of equal dimensions to that empty or pure space, may be placed in it without the removing or expulsion of anything that was there. But to avoid confusion in discourses concerning this matter, it were possibly to be wished that the name *extension* were applied only to matter, or the distance of the extremities of particular bodies, and the term *expansion* to space in general, with or without solid matter possessing it, so as to say *space* is *expanded*, and *body extended*. But in this, everyone has his liberty; I propose it only for the more clear and distinct way of speaking.

Men differ little in clear simple ideas

§27. The knowing precisely what our words stand for, would, I imagine, in this, as well as a great many other cases, quickly end the dispute. For I am apt to think, that men, when they come to examine them, find their simple ideas all generally to agree, though in discourse with one another, they perhaps confound one another with different names. I imagine, that *men* who abstract their thoughts, and do well examine the ideas of their own minds, *cannot much differ in thinking*; however, they may perplex themselves with words, according to the way of speaking of the several schools or sects they have been bred up in: though amongst unthinking men, who examine not scrupulously and carefully their own ideas, and strip them not from the marks men use for them, but confound them with words, there must be endless dispute, wrangling, and jargon, especially if they be learned bookish men, devoted to some sect, and accustomed to the language of it; and have learned to talk after others.

But if it should happen, that any two thinking men should really have different ideas, I do not see how they could discourse or argue one with another. Here I must not be mistaken, to think that every floating imagination in men's brains, is presently of that sort of ideas I speak of. 'Tis not easy for the mind to put off those confused notions and prejudices it has imbibed from custom, inadvertency, and common conversation: it requires pains and assiduity to examine its ideas, till it resolves them into those clear and distinct simple ones, out of which they are compounded; and to see which, amongst its simple ones, have or have not a necessary connexion and dependence one upon another. Till a man doth this in the primary and original notions of things, he builds upon floating and uncertain principles, and will often find himself at a loss.

CHAPTER XIV

Of Duration, and its Simple Modes

Duration is fleeting extension

§1. There is another sort of distance, or length, the idea whereof we get not from the permanent parts of space, but from the fleeting and perpetually perishing parts of succession. This we call *duration*, the simple modes whereof are any different lengths of it, whereof we have distinct ideas, as *hours*, *days*, *years*, etc. *time*, and *eternity*.

Its idea from reflection on the train of our ideas

§2. The answer of a great man, to one who asked what time was, 'Si non rogas intelligo',[1] (which amounts to this; the more I set myself to think of it, the less I understand it,) might perhaps persuade one, that *time*, which reveals all other things, is itself not to be discovered. *Duration*, *time*, and *eternity*, are, not without reason, thought to have something very abstruse in their nature. But however remote these may seem from our comprehension, yet if we trace them right to their originals, I doubt not but one of those sources of all our knowledge, *viz. sensation* and *reflection*, will be able to furnish us with these ideas, as clear and distinct as many other, which are thought much less obscure; and we shall find, that the idea of eternity itself is derived from the same common original with the rest of our ideas.

§3. To understand *time* and *eternity* aright, we ought with attention to

consider what idea it is we have of *duration*, and how we came by it. 'Tis evident to anyone, who will but observe what passes in his own mind, that there is a train of ideas, which constantly succeed one another in his understanding, as long as he is awake. *Reflection* on these appearances of several ideas, one after another, in our minds, is that which furnishes us with the idea of *succession*: and the distance between any parts of that succession, or between the appearance of any two ideas in our minds, is that we call *duration*. For whilst we are thinking, or whilst we receive successively several ideas in our minds, we know that we do exist; and so we call the existence, or the continuation of the existence of ourselves, or anything else, commensurate to the succession of any ideas in our minds, the *duration* of ourselves, or any such other thing co-existing with our thinking.

§4. That we have our notion of *succession and duration* from this original, *viz.* from reflection on the train of ideas, which we find to appear one after another in our own minds, seems plain to me, in that we have no perception of *duration*, but by considering the train of ideas, that take their turns in our understandings. When that succession of ideas ceases, our perception of duration ceases with it; which everyone clearly experiments in himself, whilst he sleeps soundly, whether an hour, or a day, a month, or a year; of which duration of things, whilst he sleeps, or thinks not, he has no perception at all, but it is quite lost to him; and the moment wherein he leaves off to think, till the moment he begins to think again, seems to him to have no distance. And so I doubt not but it would be to a waking man, if it were possible for him to keep only one idea in his mind, without variation, and the succession of others: and we see, that one who fixes his thoughts very intently on one thing, so as to take but little notice of the succession of ideas that pass in his mind, whilst he is taken up with that earnest contemplation, lets slip out of his account a good part of that duration, and thinks that time shorter than it is. But if sleep commonly unites the distant parts of duration, it is because during that time we have no succession of ideas in our minds. For if a man, during his sleep, dreams, and variety of ideas make themselves perceptible in his mind one after another, he hath then, during such a dreaming, a sense of *duration*, and of the length of it. By which it is to me very clear, that men derive their ideas of duration, from their *reflection on the train of the ideas*, they observe to succeed one another in their own understandings, without which observation they can have no notion of *duration*, whatever may happen in the world.

The idea of duration applicable to things whilst we sleep

§5. Indeed a man having from reflecting on the succession and number of his own thoughts, got the notion or idea of *duration*, he can apply that notion to things, which exist while he does not think; as he that has got the idea of extension from bodies by his sight or touch, can apply it to distances, where no body is seen or felt. And therefore, though a man has no perception of the length of duration, which passed whilst he slept or thought not; yet having observed the revolution of days and nights, and found the length of their duration to be in appearance regular and constant, he can, upon the supposition, that that revolution has proceeded after the same manner, whilst he was asleep or thought not, as it used to do at other times; he can, I say, imagine and make allowance for the length of *duration*, whilst he slept. But if Adam and Eve (when they were alone in the world) instead of their ordinary night's sleep, had passed the whole 24 hours in one continued sleep, the duration of that 24 hours had been irrecoverably lost to them, and been forever left out of their account of time.

The idea of succession not from motion

§6. Thus *by reflecting on the appearing of various ideas, one after another in our understandings, we get the notion of succession*; which if anyone should think, we did rather get from our observation of motion by our senses, he will, perhaps, be of my mind, when he considers, that even motion produces in his mind an idea of succession, no otherwise than as it produces there a continued train of distinguishable ideas. For a man looking upon a body really moving, perceives yet no motion at all, unless that motion produces a constant train of *successive ideas*, *v.g.* a man becalmed at sea, out of sight of land, in a fair day, may look on the Sun, or sea, or ship, a whole hour together, and perceive no motion at all in either; though it be certain, that two, and perhaps all of them, have moved, during that time, a great way: but as soon as he perceives either of them to have changed distance with some other body, as soon as this motion produces any new idea in him, then he perceives, that there has been motion. But wherever a man is, with all things at rest about him, without perceiving any motion at all; if during this hour of quiet he has been thinking, he will perceive the various ideas of his own thoughts in his own mind, appearing one after another, and thereby observe and find succession, where he could observe no motion.

§7. And this, I think, is the reason *why motions very slow*, though they are constant, *are not perceived* by us; because in their remove from one sensible part towards another, their change of distance is so slow, that it causes no

new ideas in us, but a good while one after another: and so not causing a constant train of new ideas, to follow one another immediately in our minds, we have no perception of motion; which consisting in a constant succession, we cannot perceive that succession, without a constant succession of varying ideas arising from it.

§8. On the contrary, *things that move* so swift, as not to affect the senses distinctly with several distinguishable distances of their motion, and so cause not any train of ideas in the mind, *are not* also *perceived* to move. For anything that moves round about in a circle in less time than our ideas are wont to succeed one another in our minds, is not perceived to move; but seems to be a perfect, entire circle of that matter or colour, and not a part of a circle in motion.

The train of ideas has a certain degree of quickness

§9. Hence I leave it to others to judge, whether it be not probable, that our ideas do, whilst we are awake, succeed one another in our minds at certain distances, not much unlike the images in the inside of a lantern, turned round by the heat of a candle. This appearance of theirs in train, though, perhaps, it may be sometimes faster, and sometimes slower; yet, I guess, varies not very much in a waking man: there seem to be *certain bounds to the quickness and slowness of the succession of* those ideas one to another in our minds, beyond which they can neither delay nor hasten.

§10. The reason I have for this odd conjecture, is, from observing that in the impressions made upon any of our senses, we can but to a certain degree perceive any succession; which if exceeding quick, the sense of succession is lost, even in cases where it is evident, that there is a real succession. Let a cannon bullet pass through a room, and in its way take with it any limb, or fleshy parts of a man; 'tis as clear as any demonstration can be, that it must strike successively the two sides of the room: 'tis also evident, that it must touch one part of the flesh first, and another after; and so in succession: and yet I believe nobody, who ever felt the pain of such a shot, or heard the blow against the two distant walls, could perceive any succession, either in the pain or sound of so swift a stroke. Such a part of duration as this, wherein we perceive no succession, is that which we may call an *instant*; and is *that which takes up the time of only one idea* in our minds, without the succession of another, wherein therefore we perceive no succession at all.

§11. This also happens, *where the motion is* so *slow*, as not to supply a constant train of fresh ideas to the senses, as fast as the mind is capable of

receiving new ones into it; and so other ideas of our own thoughts, having room to come into our minds, between those offered to our senses by the moving body, *there the sense of motion is lost*; and the body, though it really moves, yet not changing perceivable distance with some other bodies, as fast as the ideas of our own minds do naturally follow one another in train, the thing seems to stand still, as is evident in the hands of clocks, and shadows of Sundials, and other constant, but slow motions, where though after certain intervals, we perceive by the change of distance, that it hath moved, yet the motion itself we perceive not.

This train the measure of other successions

§12. So that to me it seems, that *the constant and regular succession of ideas* in a waking man, *is*, as it were, *the measure* and standard *of all other successions*, whereof if any one either exceeds the pace of our ideas, as where two sounds or pains, *etc.* take up in their succession the duration of but one idea, or else where any motion or succession is so slow, as that it keeps not pace with the ideas in our minds, or the quickness, in which they take their turns; as when any one, or more ideas, in their ordinary course, come into our mind between those which are offered to the sight by the different perceptible distances of a body in motion, or between sounds or smells following one another, there also the sense of a constant continued succession is lost, and we perceive it not, but with certain gaps of rest between.

The mind cannot fix long on one invariable idea

§13. If it be so, that the ideas of our minds, whilst we have any there, do constantly change and shift in a continual succession, it would be impossible, may anyone say, for a man to think long of any one thing: by which if it be meant, that a man may *have one self-same single idea a long time alone in his mind, without any variation at all*, I think, in matter of fact, it is *not possible*, for which (not knowing how the ideas of our minds are framed, of what materials they are made, whence they have their light, and how they come to make their appearances,) I can give no other reason but experience: and I would have anyone try, whether he can keep one unvaried single idea in his mind, without any other, for any considerable time together.

§14. For trial, let him take any figure, any degree of light or whiteness, or what other he pleases; and he will, I suppose, find it difficult to keep all other ideas out of his mind: but that some, either of another kind, or various consideration of that idea, (each of which considerations is a new idea) will constantly succeed one another in his thoughts, let him be as wary as he can.

§15. All that is in a man's power in this case, I think, is only to mind and observe what the *ideas* are, that take their turns *in* his understanding; or else to direct the sort, and call in such as he hath a desire or use of: but hinder the *constant succession* of fresh ones, I think he cannot, though he may commonly choose, whether he will heedfully observe and consider them.

Ideas, however made, include no sense of motion

§16. Whether these several ideas in a man's mind be made by certain motions, I will not here dispute: but this I am sure, that they include no idea of motion in their appearance; and if a man had not the idea of motion otherwise, I think he would have none at all, which is enough to my present purpose; and sufficiently shows, that the notice we take of the ideas of our own minds, appearing there one after another, is that which gives us the idea of succession and duration, without which we should have no such ideas at all. 'Tis *not* then *motion*, but the constant train of ideas in our minds, whilst we are waking, *that furnishes us with the idea of duration*, whereof motion no otherwise gives us any perception, than as it causes in our minds a constant succession of ideas, as I have before showed: and we have as clear an idea of succession and duration, by the train of other ideas succeeding one another in our minds, without the idea of any motion, as by the train of ideas caused by the uninterrupted sensible change of distance between two bodies, which we have from motion; and therefore we should as well have the idea of duration, were there no sense of motion at all.

Time is duration set out by measures

§17. Having thus got the idea of duration, the next thing natural for the mind to do, is, to get some *measure of* this common *duration*, whereby it might judge of its different lengths, and consider the distinct order, wherein several things exist, without which, a great part of our knowledge would be confused, and a great part of history be rendered very useless. This consideration of duration, as set out by certain periods, and marked by certain measures or epochs,[2] is that, I think, which most properly we call *time*.

A good measure of time must divide its whole duration into equal periods

§18. In the measuring of extension, there is nothing more required, but the application of the standard or measure we make use of to the thing, of whose extension we would be informed. But in the measuring of duration, this cannot be done, because no two different parts of succession can be put together to measure one another: and nothing being a *measure of duration*, but duration, as nothing is of extension, but extension, we cannot keep by us any standing unvarying measure of duration, which consists in a constant fleeting

succession, as we can of certain lengths of extension, as inches, feet, yards, *etc.* marked out in permanent parcels of matter. Nothing then could serve well for a convenient measure of time, but what has divided the whole length of its duration into apparently equal portions, by constantly repeated periods. What portions of duration are not distinguished, or considered as distinguished and measured by such periods, come not so properly under the notion of time, as appears by such phrases as these, *viz. before all time, and when time shall be no more.*

The revolutions of the Sun and Moon the properest measures of time

§19. The diurnal[3] and annual *revolutions of the Sun*, as having been from the beginning of nature, constant, regular, and universally observable by all mankind, and supposed equal to one another, have been with reason *made use of for the measure of duration.* But the distinction of days and years, having depended on the motion of the Sun, it has brought this mistake with it, that it has been thought, that motion and duration were the measure one of another. For men in the *measuring of the length of time*, having been accustomed to the ideas of minutes, hours, days, months, years, *etc.* which they found themselves upon any mention of time or duration, presently to think on, all which portions of time were measured out by the motion of those heavenly bodies, they were apt to confound time and motion; or at least to think, that they had a necessary connexion one with another: whereas any constant periodical appearance, or alteration of ideas in seemingly equidistant spaces of duration, if constant and universally observable, would have as well distinguished the intervals of time, as those that have been made use of. For supposing the Sun, which some[4] have taken to be a fire, had been lighted up at the same distance of time that it now every day comes about to the same meridian,[5] and then gone out again about twelve hours after, and that in the space of an annual revolution, it had sensibly increased in brightness and heat, and so decreased again; would not such regular appearances serve to measure out the distances of duration to all that could observe it, as well without as with motion? For if the appearances were constant, universally observable, and in equidistant periods, they would serve mankind for measure of time as well, were the motion away.

But not by their motion, but periodical appearances

§20. For the freezing of water, or the blowing[6] of a plant, returning at equidistant periods in all parts of the Earth, would as well serve men to reckon their years by, as the motions of the Sun: and in effect we see, that some people in America

counted their years by the coming of certain birds amongst them at their certain seasons, and leaving them at others. For a fit of an ague,[7] the sense of hunger or thirst, a smell, or a taste, or any other idea returning constantly at equidistant periods, and making itself universally be taken notice of, *would* not fail to *measure* out the course of succession, and distinguish the distances of *time*. Thus we see that men born blind count time well enough by years, whose revolutions yet they cannot distinguish by motions, that they perceive not: And I ask, whether a blind man, who distinguished his years either by heat of summer, or cold of winter; by the smell of any flower of the spring, or taste of any fruit of the autumn, would not have a better measure of time than the Romans had before the reformation of their calendar by Julius Cæsar,[8] or many other people, whose years, notwithstanding the motion of the Sun, which they pretend to make use of, are very irregular? And it adds no small difficulty to chronology, that the exact lengths of the years that several nations counted by, are hard to be known, they differing very much one from another, and, I think I may say all of them, from the precise motion of the Sun: and if the Sun moved from the creation to the flood constantly in the equator, and so equally dispersed its light and heat to all the habitable parts of the Earth, in days all of the same length, without its annual variations to the tropics, as a late[9] ingenious author[10] supposes, I do not think it very easy to imagine, that (notwithstanding the motion of the Sun) men should in the antediluvian[11] world, from the beginning count by years, or measure their time by periods, that had no sensible marks very obvious to distinguish them by.

No two parts of duration can be certainly known to be equal

§21. But perhaps it will be said without a regular motion, such as of the Sun, or some other, how could it ever be known, that such periods were equal? To which I answer, the equality of any other returning appearances might be known by the same way that that of days was known, or presumed to be so at first, which was only by judging of them by the train of ideas had passed in men's minds in the intervals, by which train of ideas discovering inequality in the natural days, but none in the artificial days,[12] the artificial days, or νυχθημερα[13] were guessed to be equal, which was sufficient to make them serve for a measure: though exacter search has since discovered inequality in the diurnal revolutions of the Sun, and we know not whether the annual also be not unequal: these yet by their presumed and apparent equality, serve as well to reckon time by, (though not to measure the parts of duration exactly) as if they could be proved to be exactly equal. We must therefore

carefully distinguish betwixt duration itself, and the measures we make use of to judge of its length. Duration in itself, is to be considered as going on in one constant, equal, uniform course: but none of the measures of it, which we make use of, can be known to do so; nor can we be assured, that their assigned parts or periods are equal in duration one to another; for two successive lengths of duration, however measured, can never be demonstrated to be equal. The motion of the Sun, which the world used so long, and so confidently, for an exact measure of duration, has, as I said, been found in its several parts unequal: and though men have of late made use of a pendulum,[14] as a more steady and regular motion, than that of the Sun, (or to speak more truly) of the Earth; yet if anyone should be asked how he certainly knows that the two successive swings of a pendulum are equal, it would be very hard to satisfy himself, that they are infallibly so: since we cannot be sure, that the cause of that motion, which is unknown to us, shall always operate equally; and we are sure that the medium in which the pendulum moves, is not constantly the same: either of which varying, may alter the equality of such periods, and thereby destroy the certainty and exactness of the measure by motion, as well as any other periods of other appearances, the notion of duration still remaining clear, though our measures of it cannot any of them be demonstrated to be exact. Since then no two portions of succession can be brought together, it is impossible ever certainly to know their equality. All that we can do for a measure of time, is to take such as have continual successive appearances at seemingly equidistant periods; *of* which *seeming equality, we have no other measure, but* such as *the train of our own ideas* have lodged in our memories, with the concurrence of other probable reasons, to persuade us of their equality.

Time not the measure of motion

§22. One thing seems strange to me, that whilst all men manifestly measured time by the motion of the great and visible bodies of the world, *time* yet should be *defined* to be the *measure of motion*: whereas 'tis obvious to everyone, who reflects ever so little on it, that, to measure motion, space is as necessary to be considered as time; and those who look a little further, will find also the bulk of the thing moved necessary to be taken into the computation by anyone who will estimate or measure motion, so as to judge right of it. Nor, indeed, does motion any otherwise conduce to the measuring of duration, than as it constantly brings about the return of certain sensible ideas, in seeming equidistant periods. For if the motion of the Sun were as unequal as of a ship driven by unsteady

winds, sometimes very slow, and at others irregularly very swift; or if being constantly equally swift, it yet was not circular, and produced not the same appearances, it would not at all help us to measure time, any more than the seeming unequal motion of a comet does.

Minutes, hours, and years, not necessary measures of duration

§23. *Minutes, hours, days, and years*, are then *no* more *necessary to time* or duration, than inches, feet, yards, and miles, marked out in any matter, are to extension. For though we in this part of the universe, by the constant use of them, as of periods set out by the revolutions of the Sun, or as known parts of such periods, have fixed the ideas of such lengths of duration in our minds, which we apply to all parts of time, whose lengths we would consider; yet there may be other parts of the universe, where they no more use these measures of ours, than in Japan they do our inches, feet, or miles: but yet something analogous to them, there must be. For without some regular periodical returns, we could not measure ourselves, or signify to others, the length of any duration, though at the same time the world were as full of motion, as it is now, but no part of it disposed into regular and apparently equidistant revolutions. But the different measures that may be made use of for the account of time, do not at all alter the notion of duration, which is the thing to be measured, no more than the different standards of a foot and a cubit,[15] alter the notion of extension to those, who make use of those different measures.

The measure of time two ways applied

§24. The mind having once got such a measure of time, as the annual revolution of the Sun, can apply that measure to duration, wherein that measure itself did not exist, and with which in the reality of its being, it had nothing to do: for should one say, that Abraham was born in the 2712 year of the Julian period,[16] it is altogether as intelligible, as reckoning from the beginning of the world, though there were so far back no motion of the Sun, nor any other motion at all. For though the Julian period be supposed to begin several hundred years before there were really either days, nights, or years, marked out by any revolutions of the Sun, yet we reckon as right, and thereby measure durations as well, as if really at that time the Sun had existed, and kept the same ordinary motion it doth now. The *idea of duration equal to an annual revolution of the Sun*, is as easily *applicable* in our thoughts *to duration, where no Sun nor motion was*; as the idea of a foot or yard taken from bodies here, can be applied in our thoughts to distances beyond the confines of the world, where are no bodies at all.

Our measure of time applicable to duration before time

§25. For supposing it were 5639 miles, or millions of miles, from this place to the remotest body of the universe, (for being finite, it must be at a certain distance,) as we suppose it to be 5639 years from this time to the first existence of any body in the beginning of the world, *we can*, in our thoughts, *apply this measure of a year to duration before the creation*, or beyond the duration of bodies or motion, as we can this measure of a mile to space beyond the utmost bodies; and by the one measure duration, where there was no motion, as well as by the other measure space in our thoughts, where there is no body.

§26. If it be objected to me here, that in this way of explaining of time, I have begged what I should not, *viz.* that the world is neither eternal, nor infinite; I answer, that to my present purpose, it is not needful, in this place, to make use of arguments, to evince the world to be finite, both in duration and extension: but it being at least as conceivable as the contrary, I have certainly the liberty to suppose it, as well as anyone hath to suppose the contrary; and I doubt not but that *everyone* that will go about it, may easily *conceive* in his mind *the beginning of motion, though not of all duration*; and so may come to a stop, and *non ultra*[17] in his consideration of motion: so also in his thoughts he may set limits to body, and the extension belonging to it, but not to space where no body is, the utmost bounds of space and duration being beyond the reach of thought, as well as the utmost bounds of number are beyond the largest comprehension of the mind, and all for the same reason, as we shall see in another place.

§27. By the same means therefore, and from the same original that we come to have *the idea of* time, we have also that idea which we call *eternity*; *viz.* having got the idea of succession and duration, by reflecting on the train of our own ideas, caused in us either by the natural appearances of those ideas coming constantly of themselves into our waking thoughts, or else caused by external objects successively affecting our senses; and having from the revolutions of the Sun got the ideas of certain lengths of duration, we can, in our thoughts, add such lengths of duration to one another, as often as we please, and apply them, so added, to durations past or to come: and this we can continue to do on, without bounds or limits, and proceed *in infinitum*, and apply thus the length of the annual motion of the Sun to duration, supposed before the Sun's, or any other motion had its being; which is no more difficult or absurd, than to apply the notion I have of the moving of a shadow, one hour today upon the Sundial, to the duration of something last night; *v.g.* the burning of a candle, which is now absolutely

separate from all actual motion, and it is as impossible for the duration of that flame for an hour last night, to co-exist with any motion that now is, or forever shall be, as for any part of duration, that was before the beginning of the world, to co-exist with the motion of the Sun now. But yet this hinders not, but that having the idea of the length of the motion of the shadow on a dial between the marks of two hours, I can as distinctly measure in my thoughts the duration of that candlelight last night, as I can the duration of anything that does now exist: and it is no more than to think, that had the Sun shone then on the dial, and moved after the same rate it doth now, the shadow on the dial would have passed from one hour-line to another, whilst that flame of the candle lasted.

Eternity

§28. The notion of an hour, day, or year, being only the idea I have of the length of certain periodical regular motions, neither of which motions do ever all at once exist, but only in the ideas I have of them in my memory derived from my senses or reflection, I can with the same ease, and for the same reason, apply it in my thoughts to duration antecedent to all manner of motion, as well as to anything, that is but a minute, or a day, antecedent to the motion, that at this very moment the Sun is in. All things past are equally and perfectly at rest; and to this way of consideration of them, are all one, whether they were before the beginning of the world, or but yesterday; *the measuring of* any *duration* by some motion, *depending* not at all *on* the real co-existence of that thing to that motion, or any other periods of revolution, but the having *a clear idea of the length of some* periodical known motion, or other intervals of *duration* in my mind, and *applying that to the duration of the thing I would measure.*

§29. Hence we see, that some men imagine the duration of the world from its first existence, to this present year 1689 to have been 5639 years,[18] or equal to 5639 annual revolutions of the Sun, and others a great deal more; as the Egyptians of old, who in the time of Alexander[19] counted 23000 years, from the reign of the Sun; and the Chinese now, who account the world 3,269,000 years old, or more; which longer duration of the world, according to their computation, though I should not believe to be true, yet I can equally imagine it with them, and as truly understand, and say one is longer than the other, as I understand, that Methusalem's[20] life was longer than Enoch's:[21] And if the common reckoning of 5639 should be true, (as it may be, as well as any other assigned,) it hinders not at all my imagining what others mean, when they make the world 1000 years older, since everyone may with the same facility imagine (I do not say believe) the world

to be 50000 years old, as 5639; and may as well conceive the duration of 50000 years, as 5639. Whereby it appears, that *to the measuring the duration of anything by time*, it is not requisite, that that thing should be co-existent to the motion we measure by, or any other periodical revolution; but it *suffices* to this purpose, *that we have the idea of the length of any regular periodical appearances*, which we can in our minds apply to duration, with which the motion or appearance never co-existed.

§30. For as in the history of the creation delivered by Moses,[22] I can imagine that light existed three days before the Sun was, or had any motion, barely by thinking, that the duration of light before the Sun was created, was so long as (if the Sun had moved then, as it doth now,) would have been equal to three of his diurnal revolutions; so by the same way I can have an idea of the chaos, or angels, being created before there was either light, or any continued motion, a minute, an hour, a day, a year, or 1000 years. For if I can but consider *duration* equal to one minute, before either the being or motion of any body, I can add one minute more till I come to 60; and by the same way of adding minutes, hours, or years, (*i.e.* such or such parts of the Sun's revolution, or any other period whereof I have the idea,) proceed *in infinitum*, and suppose a duration exceeding as many such periods as I can reckon, let me add whilst I will, which I think is the notion we have of *eternity*, of whose infinity we have no other notion, than we have of the infinity of number, to which we can add for ever without end.

§31. And thus I think it is plain, that *from* those two fountains of all knowledge before mentioned, *viz. reflection and sensation, we get the ideas of duration*, and the measures of it.

For *first*, by observing what passes in our minds, how our ideas there in train constantly some vanish, and others begin to appear, we come by the idea of *succession.*

Secondly, by observing a distance in the parts of this succession, we get the idea of *duration.*

Thirdly, by sensation observing certain appearances, at certain regular and seeming equidistant periods, we get the ideas of certain lengths or *measures of duration*, as minutes, hours, days, years, *etc.*

Fourthly, by being able to repeat those measures of time, or ideas of stated length of duration in our minds, as often as we will, we can come to *imagine duration, where nothing does really endure or exist*; and thus we imagine tomorrow, next year, or seven years hence.

Fifthly, by being able to repeat any such idea of any length of time, as of

a minute, a year, or an age, as often as we will in our own thoughts, and add them one to another, without ever coming to the end of such addition, any nearer than we can to the end of number, to which we can always add, we come by the idea of *eternity*, as the future eternal duration of our souls, as well as the eternity of that infinite being, which must necessarily have always existed.

Sixthly, by considering any part of infinite duration, as set out by periodical measures, we come by the idea of what we call *time* in general.

CHAPTER XV

Of Duration and Expansion, considered together

Both capable of greater and less

§1. Though we have in the precedent chapters dwelt pretty long on the considerations of space and duration; yet they being ideas of general concernment, that have something very abstruse and peculiar in their nature, the comparing them one with another may, perhaps, be of use for their illustration; and we may have the more clear and distinct conception of them, by taking a view of them together. Distance or space, in its simple abstract conception, to avoid confusion, I call *expansion*, to distinguish it from *extension*, which by some is used to express this distance only as it is in the solid parts of matter, and so includes, or at least intimates the idea of body: whereas the idea of pure distance includes no such thing. I prefer also the word *expansion* to *space*, because *space* is often applied to distance of fleeting successive parts, which never exist together, as well as to those which are permanent. In both these, *viz. expansion* and *duration*, the mind has this common idea of continued lengths, capable of greater, or less quantities: for a man has as clear an idea of the difference of the length of an hour, and a day, as of an inch and a foot.

Expansion not bounded by matter

§2. The *mind*, having got the idea of the length of any part of *expansion*, let it be a span,[1] or a pace, or what length you will, *can*, as has been said, repeat that idea; and so adding it to the former, *enlarge its idea of length*, and make it equal to two spans, or two paces, and so as often as it will, till it equals the distance of any parts of the Earth one from another, and increase thus, till it amounts to the distance of the Sun,

or remotest star. By such a progression as this, setting out from the place where it is, or any other place, it can proceed and pass beyond all those lengths, and find nothing to stop its going on, either in, or without body. 'Tis true, we can easily in our thoughts come to the end of solid extension; the extremity and bounds of all body, we have no difficulty to arrive at: but when the mind is there, it finds nothing to hinder its progress into this endless expansion; of that it can neither find nor conceive any end. Nor let anyone say, that beyond the bounds of body, there is nothing at all, unless he will confine GOD within the limits of matter. Solomon, whose understanding was filled and enlarged with wisdom, seems to have other thoughts, when he says, 'Heaven, and the Heaven of Heavens, cannot contain Thee:'[2] and he, I think, very much magnifies to himself the capacity of his own understanding, who persuades himself, that he can extend his thoughts further than GOD exists, or imagine any expansion where he is not.

Nor duration by motion

§3. Just so is it in duration. *The mind having got the idea of any length of duration, can double, multiply, and enlarge it*, not only beyond its own, but beyond the existence of all corporeal beings, and all the measures of time, taken from the great bodies of the world, and their motions. But yet everyone easily admits, that though we make duration boundless, as certainly it is, we cannot yet extend it beyond all being. GOD, everyone easily allows, fills eternity; and 'tis hard to find a reason, why anyone should doubt, that he likewise fills immensity? His infinite being is certainly as boundless one way as another; and methinks it ascribes a little too much to matter, to say, where there is no body, there is nothing.

Why men more easily admit infinite duration, than infinite expansion

§4. Hence, I think, we may learn the reason, *why everyone* familiarly, and without the least hesitation, speaks of, and supposes eternity, and sticks not to *ascribe infinity to duration*; *but* 'tis *with more doubting* and reserve, that many *admit*, or suppose *the infinity of space*. The reason whereof seems to me to be this, that duration and extension being used as names of affections belonging to other beings, we easily conceive in GOD infinite duration, and we cannot avoid doing so: but not attributing to him extension, but only to matter, which is finite, we are apter to doubt of the existence of expansion without matter; of which alone we commonly suppose it an attribute. And therefore when men pursue their thoughts of space, they are apt to stop at the confines of body; as if space were there at an end too, and reached no further. Or if their ideas upon consideration carry them further, yet they term what is beyond

the limits of the universe, imaginary space; as if it were nothing, because there is no body existing in it. Whereas duration, antecedent to all body, and to the motions, which it is measured by, they never term imaginary; because it is never supposed void of some other real existence. And if the names of things may at all direct our thoughts towards the originals of men's ideas, (as I am apt to think they may very much,) one may have occasion to think by the name *duration*, that the continuation of existence, with a kind of resistance to any destructive force, and the continuation of solidity, (which is apt to be confounded with, and if we will look into the minute anatomical parts of matter, is little different from hardness,) were thought to have some analogy, and gave occasion to words, so near of kin as *durare*[3] and *durum esse*.[4] And that *durare* is applied to the idea of hardness, as well as that of existence we see in Horace, *Epod*, 16.[5] 'ferro duravit sæcula'. But be that as it will, this is certain, that whoever pursues his own thoughts, will find them sometimes launch out beyond the extent of body, into the infinity of space or expansion; the idea whereof is distinct and separate from body, and all other things: which may (to those who please) be a subject of further meditation.

Time to duration, is as place to expansion

§5. *Time* in general is to *duration*, as *place* to *expansion*. They are so much of those boundless oceans of eternity and immensity, as is set out and distinguished from the rest, as it were by landmarks; and so are made use of, to denote the position of finite real beings, in respect one to another, in those uniform infinite oceans of duration and space. These rightly considered, are nothing but ideas of determinate distances, from certain known points fixed in distinguishable sensible things, and supposed to keep the same distance one from another. From such points fixed in sensible beings we reckon, and from them we measure our portions of those infinite quantities; which so considered, are that which we call *time* and *place*. For duration and space being in themselves uniform and boundless, the order and position of things, without such known settled points, would be lost in them; and all things would lie jumbled in an incurable confusion.

Time and place are taken for so much of either, as are set out by the existence and motion of bodies

§6. *Time* and *place* taken thus, for determinate distinguishable portions of those infinite abysses of space and duration, set out, or supposed to be distinguished from the rest, by marks, and known boundaries, have each of them a two-fold acceptation.

First, *time* in general is commonly taken for so much of infinite duration,

as is measured out by, and co-existent with the existence, and motions of the great bodies of the universe, as far as we know anything of them: and in this sense, time begins and ends with the frame of this sensible world, as in these phrases before-mentioned, *before all time*, or *when time shall be no more*. *Place* likewise is taken sometimes for that portion of infinite space, which is possessed by, and comprehended within the material world; and is thereby distinguished from the rest of expansion; though this may more properly be called *extension*, than place. Within these two are confined, and by the observable parts of them, are measured and determined the particular time or duration, and the particular extension and place, of all corporeal beings.

Sometimes for so much of either, as we design by measures taken from the bulk or motion of bodies

§7. *Secondly*, sometimes the word *time* is used *in a larger sense*, and is applied to parts of that infinite duration, not that were really distinguished and measured out by this real existence, and periodical motions of bodies that were appointed from the beginning to be for signs, and for seasons, and for days, and years,[6] and are accordingly our measures of time; but such other portions too of that infinite uniform duration, which we, upon any occasion, do suppose equal to certain lengths of measured time; and so consider them as bounded and determined. For if we should suppose the creation, or fall of the angels,[7] was at the beginning of the Julian period,[8] we should speak properly enough, and should be understood, if we said, 'tis a longer time since the creation of angels, than the creation of the world, by 764 years: whereby we would mark out so much of that undistinguished duration, as we suppose equal to, and would have admitted, 764 annual revolutions of the Sun, moving at the rate it now does. And thus likewise, we sometimes speak of place, distance, or bulk in the great inane[9] beyond the confines of the world, when we consider so much of that space, as is equal to, or capable to receive a body of any assigned dimensions, as a cubic-foot; or do suppose a point in it, at such a certain distance from any part of the universe.

They belong to all beings

§8. *Where* and *when* are questions belonging to all finite existences, and are by us always reckoned from some known parts of this sensible world, and from some certain epochs marked out to us by the motions observable in it. Without some such fixed parts or periods, the order of things would be lost, to our finite understandings, in the boundless invariable oceans of duration and expansion; which comprehend in them all finite beings, and in their full extent, belong only to the Deity. And therefore we are not to wonder, that we comprehend them not, and do so often find our thoughts at a loss, when we would consider them,

either abstractly in themselves, or as any way attributed to the first incomprehensible being. But when applied to any particular finite beings, the extension of any body is so much of that infinite space, as the bulk of that body takes up. And place is the position of any body, when considered at a certain distance from some other. As the idea of the particular *duration* of any thing, is an idea of that portion of infinite *duration*, which passes during the existence of that thing; so the time *when* the thing existed, is the idea of that space of duration, which passed between some known and fixed period of duration, and the being of that thing. One shows the distance of the extremities of the bulk, or existence of the same thing, as that it is a foot square, or lasted two years; the other shows the distance of it in place, or existence from other fixed points of space or duration; as that it was in the middle of Lincoln's Inn Fields,[10] or the first degree of Taurus,[11] and in the year of our Lord 1671, or the 1000 year of the Julian period: all which distances, we measure by preconceived ideas of certain lengths of space and duration, as inches, feet, miles, and degrees, and in the other minutes, days, and years, *etc.*

All the parts of extension are extension; and all the parts of duration, are duration

§9. There is one thing more, wherein *space and duration* have a great conformity, and that is, though they are justly reckoned amongst our *simple* ideas: Yet none of the distinct ideas we have of either, is without all manner of *composition*;* it is the very nature of both of them to consist of parts: but

*It has been objected to Mr Locke, that if space consists of parts, as 'tis confessed in this place, he should not have reckoned it in the number of simple ideas; because it seems to be inconsistent with what he says elsewhere, that a simple idea is 'uncompounded, and contains in it nothing but one uniform appearance, or conception of the mind, and is not distinguishable into different ideas', bk. 2, chap. 2, § 2. 'Tis further objected, That Mr Locke has not given in the 2nd chapter of the 2nd book, where he begins to speak of *simple* ideas, an exact definition of what he understands by the word *simple* ideas. To these difficulties, Mr Locke answers thus: To begin with the last, he declares, that he has not treated his subject in an order perfectly scholastic, having not had much familiarity with those sort of books during the writing of his, and not remembering at all the method in which they are written; and therefore his readers ought not to expect definitions regularly placed at the beginning of each new subject. Mr Locke contents himself to employ the principal terms that he uses, so that from his use of them the reader may easily comprehend what he means by them. But with respect to the term *simple* idea, he has had the good luck to define that in the place cited in the objection; and therefore there is no reason to supply that defect. The question then is to know, whether the idea of *extension* agrees with this definition? Which will effectually agree to it, if it be understood in the sense which Mr Locke had principally in his view; for that composition which he designed to exclude in that definition, was a composition of different ideas in the mind, and not a composition of the same kind in a thing whose essence consists in having parts of the same kind, where you can never come to a part

their parts being all of the same kind, and without the mixture of any other idea, hinder them not from having a place amongst simple ideas. Could the mind, as in number, come to so small a part of extension or duration, as excluded divisibility, that would be, as it were, the indivisible unit, or idea; by repetition of which, it would make its more enlarged ideas of extension and duration. But since the mind is not able to frame an idea of any space, without parts; instead thereof it makes use of the common measures, which by familiar use, in each country, have imprinted themselves on the memory (as inches, and feet; or cubits, and parasangs;[12] and so seconds, minutes, hours, days, and years in duration:) the mind makes use, I say, of such ideas as these, as simple ones; and these are the component parts of larger ideas, which the mind, upon occasion, makes by the addition of such known lengths, which it is acquainted with. On the other side, the ordinary smallest measure we have of either, is looked on as an unit in number, when the mind by division would reduce them into less fractions. Though on both sides, both in addition and division, either of space or duration, when the idea under consideration becomes very big, or very small, its precise bulk becomes very obscure and confused; and it is the number of its repeated additions, or divisions, that alone remains clear and distinct, as will easily appear to anyone, who will let his thoughts loose in

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entirely exempted from this composition. So that if the idea of *extension* consists in having *partes extra partes*, (as the Schools speaks,) 'tis always, in the sense of Mr Locke, a *simple* idea; because the idea of having *partes extra partes*, cannot be resolved into two other ideas. For the remainder of the objection made to Mr Locke, with respect to the nature of extension, Mr Locke was aware of it, as may be seen in §9. Ch. 15. of the 2nd Book, where he says, that the least portion of space or extension, whereof we have a clear and distinct idea, may perhaps be the fittest to be considered by us as a *simple* idea of that kind, out of which our complex modes of space and extension are made up. So that, according to Mr Locke, it may very fitly be called a *single* idea, since it is the least idea of space that the mind can form to itself, and that cannot be divided by the mind into any less whereof it has in itself any determined perception. From whence it follows, that it is to the mind one *simple* idea; and that is sufficient to take away this objection; for 'tis not the design of Mr Locke, in this place, to discourse of anything but concerning the ideas of the mind. But if this is not sufficient to clear the difficulty, Mr Locke hath nothing more to add, but that if the idea of extension is so peculiar, that it cannot exactly agree with the definition that he has given of those *simple* ideas, so that it differs in some manner from all others of that kind, he thinks 'tis better to leave it there exposed to this difficulty, than to make a new division in his favour. 'Tis enough for Mr Locke that his meaning can be understood. 'Tis very common to observe intelligible discourses spoiled by too much subtlety in nice divisions. We ought put things together, as well as we can, *doctrinæ causa*; but, after all, several things will not be bundled up together under our terms and ways of speaking.

the vast expansion of space, or divisibility of matter. Every part of duration, is duration too; and every part of extension, is extension, both of them capable of addition or division *in infinitum*. But the least portions of either of them, whereof we have clear and distinct ideas, may perhaps be fittest to be considered by us, as the simple ideas of that kind, out of which our complex modes of space, extension, and duration, are made up, and into which they can again be distinctly resolved. Such a small part in duration, may be called a *moment*, and is the time of one idea in our minds, in the train of their ordinary succession there. The other, wanting a proper name, I know not whether I may be allowed to call *a sensible point*, meaning thereby the least particle of matter or space we can discern, which is ordinarily about a minute, and to the sharpest eyes seldom less than thirty seconds[13] of a circle, whereof the eye is the centre.

Their parts inseparable

§10. Expansion and duration, have this further agreement, that though they are both considered by us as having parts; yet *their parts* are *not separable* one from another, no not even in thought: though the parts of bodies, from whence we take our measure of the one; and the parts of motion, or rather the succession of ideas in our minds, from whence we take the measure of the other, may be interrupted and separated; as the one is often by rest, and the other is by sleep, which we call rest too.

Duration is as a line, expansion as a solid

§11. But yet there is this manifest difference between them, that the ideas of length, which we have of *expansion*, *are turned every way*, and so make figure, and breadth, and thickness; but *duration is but as it were the length of one straight line*, extended *in infinitum*, not capable of multiplicity, variation, or figure; but is one common measure of all existence whatsoever, wherein all things, whilst they exist, equally partake. For this present moment is common to all things, that are now in being, and equally comprehends that part of their existence, as much as if they were all but one single being; and we may truly say, they all exist in the same moment of time. Whether angels and spirits have any analogy to this, in respect of expansion,[14] is beyond my comprehension: and, perhaps, for us, who have understandings and comprehensions, suited to our own preservation, and the ends of our own being, but not to the reality and extent of all other beings, 'tis near as hard to conceive any existence, or to have an idea of any real being, with a perfect negation of all manner of expansion; as it is, to have the idea of any real existence, with a perfect negation of all manner of duration: and therefore what spirits have to do with space, or how they communicate in it, we know not. All that we know

is, that bodies do each singly possess its proper portion of it, according to the extent of its solid parts; and thereby exclude all other bodies from having any share in that particular portion of space, whilst it remains there.

Duration has never two parts together, expansion altogether

§12. *Duration*, and time which is a part of it, *is the idea* we have *of perishing distance, of which no two parts exist together*, but follow each other in succession; as *expansion is the idea of lasting distance, all whose parts exist together*, and are not capable of succession. And therefore though we cannot conceive any duration without succession, nor can put it together in our thoughts, that any being does now exist tomorrow, or possess at once more than the present moment of duration; yet we can conceive the eternal duration of the Almighty far different from that of man, or any other finite being. Because man comprehends not in his knowledge, or power, all past and future things: his thoughts are but of yesterday, and he knows not what tomorrow will bring forth.[15] What is once passed, he can never recall; and what is yet to come, he cannot make present. What I say of man, I say of all finite beings, who, though they may far exceed man in knowledge and power, yet are no more than the meanest creature, in comparison with God himself. Finite of any magnitude, holds not any proportion to infinite. God's infinite duration being accompanied with infinite knowledge, and infinite power, he sees all things past and to come; and they are no more distant from his knowledge, no further removed from his sight, than the present: they all lie under the same view: and there is nothing which he cannot make exist each moment he pleases. For the existence of all things, depending upon his good pleasure; all things exist every moment, that he thinks fit to have them exist. To conclude, expansion and duration do mutually embrace, and comprehend each other; every part of space, being in every part of duration; and every part of duration, in every part of expansion. Such a combination of two distinct ideas, is, I suppose, scarce to be found in all that great variety, we do or can conceive, and may afford matter to further speculation.

CHAPTER XVI

Of Number

Number the simplest and most universal idea

§1. Amongst all the ideas we have, as there is none suggested to the mind by more ways, so there is none more simple, than that *of unity*, or one: it has no shadow of variety or composition in it: every object our senses are employed about; every idea in our understandings; every thought of our minds, brings this idea along with it. And therefore it is the most intimate to our thoughts, as well as it is, in its agreement to all other things, the most universal idea we have. For number applies itself to men, angels, actions, thoughts, everything that either doth exist, or can be imagined.

Its modes made by addition

§2. By repeating this idea in our minds, and adding the repetitions together, we come by the *complex ideas of the modes of it.* Thus by adding one to one, we have the complex idea of a couple; by putting twelve units together, we have the complex idea of a dozen; and of a score, or a million, or any other number.

Each mode distinct

§3. *The simple modes of number are of all other the most distinct;* every the least variation, which is an unit, making each combination, as clearly different from that, which approacheth nearest to it, as the most remote; two being as distinct from one, as two hundred; and the idea of two, as distinct from the idea of three, as the magnitude of the whole Earth, is from that of a mite.[1] This is not so in other simple modes, in which it is not so easy, nor, perhaps, possible for us to distinguish betwixt two approaching ideas, which yet are really different. For who will undertake to find a difference between the white of this paper, and that of the next degree to it: or can form distinct ideas of every the least excess in extension?

Therefore demonstrations in numbers the most precise

§4. The clearness and *distinctness of each mode of number* from all others, even those that approach nearest, makes me apt to think, that demonstrations in numbers, if they are not more evident and exact, than in extension, yet they are more general in their use, and more determinate in their application. Because the ideas of numbers are more precise, and distinguishable than in extension; where every equality and excess are not so easy to be observed, or measured; because our thoughts cannot in space arrive at any determined smallness,

beyond which it cannot go, as an unit; and therefore the quantity or proportion of any the least excess cannot be discovered, which is clear otherwise in number, where, as has been said, 91 is as distinguishable from 90, as from 9000, though 91 be the next immediate excess to 90. But it is not so in extension, where whatsoever is more than just a foot, or an inch, is not distinguishable from the standard of a foot, or an inch; and in lines, which appear of an equal length, one may be longer than the other by innumerable parts: nor can anyone assign an angle, which shall be the next biggest to a right one.

Names necessary to numbers

§5. By the repeating, as has been said, of the idea of an unit, and joining it to another unit, we make thereof one collective idea, marked by the name *two*. And whosoever can do this, and proceed on, still adding one more to the last collective idea, which he had of any number, and give a name to it, may count, or have ideas for several collections of units, distinguished one from another, as far as he hath a series of names for following numbers, and a memory to retain that series, with their several names: all *numeration* being but still the adding of one unit more, and giving to the whole together, as comprehended in one idea, a new or distinct name or sign, whereby to know it from those before and after, and distinguish it from every smaller or greater multitude of units. So that he that can add one to one, and so to two, and so go on with his tale, taking still with him the distinct names belonging to every progression; and so again, by subtracting an unit from each collection, retreat and lessen them, is capable of all the ideas of numbers, within the compass of his language, or for which he hath names, though not, perhaps, of more. For the several simple modes of numbers, being in our minds, but so many combinations of units, which have no variety, nor are capable of any other difference, but more or less, names or marks for each distinct combination, seem more necessary, than in any other sort of ideas. For without such names or marks, we can hardly well make use of numbers in reckoning, especially where the combination is made up of any great multitude of units; which put together without a name or mark, to distinguish that precise collection, will hardly be kept from being a heap in confusion.

§6. This, I think, to be the reason why some Americans,[2] I have spoken with, (who were otherwise of quick and rational parts enough,) could not, as we do, by any means count to 1000; nor had any distinct idea of that number, though they could reckon very well to 20. Because their language being scanty, and accommodated only to the few necessaries of a needy

simple life, unacquainted either with trade or mathematics, had no words in it to stand for 1000; so that when they were discoursed with of those greater numbers, they would show the hairs of their head, to express a great multitude, which they could not number; which inability, I suppose, proceeded from their want of names. The Tououpinambos[3] had no names for numbers above 5; any number beyond that, they made out by showing their fingers, and the fingers of others who were present:* And I doubt not but we ourselves might distinctly number in words, a great deal further than we usually do, would we find out but some fit denominations to signify them by; whereas in the way we take now to name them by millions of millions of millions, *etc.* it is hard to go beyond eighteen, or at most four and twenty decimal progressions, without confusion. But to show how much *distinct names conduce to our well reckoning*, or having useful ideas of numbers, let us set all these following figures in one continued line, as the marks of one number: *v.g.*

Nonillions.	*Octillions.*	*Septillions.*	*Sextillions.*	*Quintillions.*	*Quatillions.*	*Trillions.*	*Billions.*	*Millions.*	*Units.*
857324.	162486.	345896.	437916.	423147.	248106.	235421.	261734.	368149.	623137.

The ordinary way of naming this number in English, will be the often repeating of millions, of millions, of millions, of millions, of millions, of millions, of millions, of millions, (which is the denomination of the second six figures.) In which way, it will be very hard to have any distinguishing notions of this number: but whether, by giving every six figures a new and orderly denomination, these, and perhaps a great many more figures, in progression, might not easily be counted distinctly, and ideas of them both got more easily to ourselves, and more plainly signified to others, I leave it to be considered. This I mention only to show how necessary distinct names are to numbering, without pretending to introduce new ones of my invention.

Why children number not earlier

§7. Thus children, either for want of names to mark the several progressions of numbers, or not having yet the faculty to collect scattered ideas into complex ones, and range them in a regular order, and so retain them in their memories, as is necessary to reckoning, do not begin to number very early, nor proceed in it very far or steadily, till a good while after they are well furnished with good store of other ideas; and one may often observe them discourse and reason pretty

**Histoire d'un Voiage fait en la Terre du Bresil, par Jean de Lery*, c. 20. $\frac{307}{382}$.

well, and have very clear conceptions of several other things, before they can tell 20. And some, through the default of their memories, who cannot retain the several combinations of numbers, with their names annexed in their distinct orders, and the dependence of so long a train of numeral progressions, and their relation one to another, are not able all their lifetime, to reckon, or regularly go over any moderate series of numbers. For he that will count twenty, or have any idea of that number, must know that nineteen went before, with the distinct name or sign of every one of them, as they stand marked in their order; for wherever this fails, a gap is made, the chain breaks, and the progress in numbering can go no further. So that *to reckon right, it is required*, 1. that the mind distinguish carefully two ideas, which are different one from another only by the addition or subtraction of one unit. 2. That it retain in memory the names, or marks, of the several combinations from an unit to that number; and that not confusedly, and at random, but in that exact order, that the numbers follow one another: in either of which, if it trips, the whole business of numbering will be disturbed, and there will remain only the confused idea of multitude, but the ideas necessary to distinct numeration, will not be attained to.

Number measures all measurables

§8. This further is observable in *number*, that it is that which the mind makes use of in *measuring all things*, that by us are measurable, which principally are *expansion* and *duration*; *and* our idea of infinity, even when applied to those, seems to be nothing, but the infinity of number. For what else are our ideas of eternity and immensity, but the repeated additions of certain ideas of imagined parts of duration, and expansion, with the infinity of number, in which we can come to no end of addition? For such an inexhaustible stock, number, of all other our ideas, most clearly furnishes us with, as is obvious to everyone. For let a man collect into one sum, as great a number as he pleases, this multitude, how great soever, lessens not one jot the power of adding to it, or brings him any nearer the end of the inexhaustible stock of number, where still there remains as much to be added, as if none were taken out. And this endless *addition* or *addibility* (if anyone like the word better) of numbers, so apparent to the mind, is that, I think, which gives us the clearest and most distinct idea of infinity: of which more in the following chapter.

CHAPTER XVII

Of Infinity

Infinity, in its original intention, attributed to space, duration, and number

§1. He that would know what kind of idea it is to which we give the name of *infinity*, cannot do it better, than by considering to what infinity is by the mind more immediately attributed, and then how the mind comes to frame it.

Finite and *infinite*, seem to me to be looked upon by the mind, as the *modes of quantity*, and to be attributed primarily in their first designation only to those things, which have parts, and are capable of increase or diminution, by the addition or subtraction of any the least part: and such are the ideas of space, duration, and number, which we have considered in the foregoing chapters. 'Tis true, that we cannot but be assured, that the great GOD, of whom, and from whom are all things, is incomprehensibly infinite: but yet, when we apply to that first and supreme being, our idea of infinite, in our weak and narrow thoughts, we do it primarily in respect of his duration and ubiquity; and, I think, more figuratively to his power, wisdom, and goodness, and other attributes, which are properly inexhaustible and incomprehensible, *etc.* For when we call them infinite, we have no other idea of this infinity, but what carries with it some reflection on, and intimation of that number or extent of the acts or objects of God's power, wisdom, and goodness, which can never be supposed so great, or so many, which these attributes will not always surmount and exceed, let us multiply them in our thoughts, as far as we can, with all the infinity of endless number. I do not pretend to say how these attributes are in GOD, who is infinitely beyond the reach of our narrow capacities: they do, without doubt, contain in them all possible perfection: but this, I say, is our way of conceiving them, and these our ideas of their infinity.

The idea of finite easily got

§2. Finite then, and infinite, being by the mind looked on as modifications of expansion and duration, the next thing to be considered, is, *how the mind comes by* them. As for the *idea of finite*, there is no great difficulty. The obvious portions of extension, that affect our senses, carry with them into the mind the idea of finite: and the ordinary periods of succession, whereby we measure time and duration, as hours, days, and years, are bounded lengths. The difficulty is, how we come by those

boundless ideas of *eternity* and *immensity*, since the objects, which we converse with, come so much short of any approach or proportion to that largeness.

How we come by the idea of infinity

§3. Everyone, that has any idea of any stated lengths of space, as a foot, finds, that he can repeat that idea; and joining it to the former, make the idea of two foot; and by the addition of a third, three foot, and so on, without ever coming to an end of his additions, whether of the same idea of a foot, or if he pleases of doubling it, or any other idea he has of any length, as a mile, or diameter of the Earth, or of the *orbis magnus*:[1] for whichsoever of these he takes, and how often soever he doubles, or any otherwise multiplies it, he finds, that after he has continued this doubling in his thoughts, and enlarged his idea, as much as he pleases, he has no more reason to stop, nor is one jot nearer the end of such addition, than he was at first setting out; the power of enlarging his idea of space by further additions, remaining still the same, he hence takes *the idea of infinite space.*

Our idea of space boundless

§4. This, I think, is the way, whereby the mind gets the *idea of infinite space.* 'Tis a quite different consideration to examine, whether the mind has the idea of such a *boundless space actually existing*, since our ideas are not always proofs of the existence of things; but yet, since this comes here in our way, I suppose I may say, that we are apt to think, that space in itself is actually boundless, to which imagination, the idea of space or expansion of itself naturally leads us. For it being considered by us, either as the extension of body, or as existing by itself, without any solid matter taking it up, (for of such a void space, we have not only the idea, but I have proved, as I think, from the motion of body, its necessary existence,) it is impossible the mind should be ever able to find or suppose any end of it, or be stopped anywhere in its progress in this space, how far soever it extends its thoughts. Any bounds made with body, even adamantine[2] walls, are so far from putting a stop to the mind in its further progress in space and extension, that it rather facilitates and enlarges it: for so far as that body reaches, so far no one can doubt of extension; and when we are come to the utmost extremity of body, what is there, that can there put a stop, and satisfy the mind, that it is at the end of space, when it perceives it is not; nay, when it is satisfied that body itself can move into it? For if it be necessary for the motion of body, that there should be an empty space, though never so little, here amongst bodies; and it be possible for body to move in or through that empty space; nay, it is impossible for any particle

of matter to move but into an empty space, the same possibility of a body's moving into a void space, beyond the utmost bounds of body, as well as into a void space interspersed amongst bodies, will always remain clear and evident, the idea of empty pure space, whether within, or beyond the confines of all bodies, being exactly the same, differing not in nature, though in bulk; and there being nothing to hinder body from moving into it: so that wherever the mind places itself by any thought, either amongst, or remote from all bodies, it can, in this uniform idea of space, nowhere find any bounds, any end; and so must necessarily conclude it by the very nature and idea of each part of it, to be actually infinite.

And so of duration

§5. As by the power we find in ourselves of repeating, as often as we will, any idea of space, we get the idea of immensity; so, by being able to repeat the idea of any length of duration, we have in our minds, with all the endless addition of number, we come by the idea of *eternity*. For we find in ourselves, we can no more come to an end of such repeated ideas, than we can come to the end of number, which everyone perceives he cannot. But here again 'tis another question, quite different from our having an idea of eternity, to know whether there were *any real being*, whose duration has been *eternal*. And as to this, I say, he that considers something now existing, must necessarily come to something eternal. But having spoke of this in another place, I shall say here no more of it, but proceed on to some other considerations of our idea of infinity.

Why other ideas are not capable of infinity

§6. If it be so, that our idea of infinity be got from the power, we observe in ourselves, of repeating without end our own ideas; it may be demanded, *why we do not attribute infinity to other ideas, as well as those of space and duration*; since they may be as easily, and as often repeated in our minds as the other; and yet nobody ever thinks of infinite sweetness, or infinite whiteness, though he can repeat the idea of sweet or white, as frequently as those of a yard, or a day? To which I answer, all the ideas, that are considered as having parts, and are capable of increase by the addition of any equal or less parts, afford us by their repetition the idea of infinity; because with this endless repetition, there is continued an enlargement, of which there can be no end. But in other ideas it is not so; for to the largest idea of extension or duration, that I at present have, the addition of any the least part makes an increase; but to the perfectest idea I have of the whitest whiteness, if I add another of a less or equal whiteness, (and of a whiter than I have, I cannot add the idea,) it

makes no increase, and enlarges not my idea at all; and therefore the different ideas of whiteness, *etc.* are called degrees. For those ideas, that consist of parts, are capable of being augmented by every addition of the least part; but if you take the idea of white, which one parcel of snow yielded yesterday to your sight, and another idea of white from another parcel of snow you see today, and put them together in your mind, they embody, as it were, and run into one, and the idea of whiteness is not at all increased; and if we add a less degree of whiteness to a greater, we are so far from increasing, that we diminish it. Those ideas that consist not of parts, cannot be augmented to what proportion men please, or be stretched beyond what they have received by their senses; but space, duration, and number, being capable of increase by repetition, leave in the mind an idea of an endless room for more; nor can we conceive anywhere a stop to a further addition or progression, and so those ideas alone lead our minds towards the thought of infinity.

Difference between infinity of space, and space infinite

§7. Though our idea of infinity arise from the contemplation of quantity, and the endless increase the mind is able to make in quantity, by the repeated additions of what portions thereof it pleases; yet I guess we cause great confusion in our thoughts, when we join infinity to any supposed idea of quantity the mind can be thought to have, and so discourse or reason about an infinite quantity, *viz.* an infinite space, or an infinite duration: for *our idea of infinity* being, as I think, *an endless growing idea*, but the idea of any quantity the mind has, being at that time terminated in that idea, (for be it as great as it will, it can be no greater than it is,) to join infinity to it, is, to adjust a standing measure to a growing bulk; and therefore I think it is not an insignificant subtlety, if I say, that we are carefully to distinguish between the idea of the infinity of space, and the idea of a space infinite: the first is nothing but a supposed endless progression of the mind, over what repeated ideas of space it pleases; but to have actually in the mind the idea of a space infinite, is to suppose the mind already passed over, and actually to have a view of all those repeated ideas of space, which an endless repetition can never totally represent to it, which carries in it a plain contradiction.

We have no idea of infinite space

§8. This, perhaps, will be a little plainer, if we consider it in numbers. The infinity of numbers, to the end of whose addition everyone perceives there is no approach, easily appears to anyone that reflects on it: but how clear soever this idea of the infinity of number

be, there is nothing yet more evident, than the absurdity of the actual idea of an infinite number. Whatsoever positive ideas we have in our minds of any space, duration, or number, let them be never so great, they are still finite; but when we suppose an inexhaustible remainder, from which we remove all bounds, and wherein we allow the mind an endless progression of thought, without ever completing the idea, there we have our idea of infinity; which though it seems to be pretty clear, when we consider nothing else in it, but the negation of an end, yet when we would frame in our minds the idea of an infinite space or duration, that idea is very obscure, and confused, because it is made up of two parts, very different, if not inconsistent. For let a man frame in his mind an idea of any space or number, as great as he will; 'tis plain, the mind rests and terminates in that idea, which is contrary to the *idea of infinity*, which *consists in a supposed endless progression*. And therefore, I think, it is, that we are so easily confounded, when we come to argue, and reason about infinite space or duration, *etc.* Because the parts of such an idea, not being perceived to be, as they are, inconsistent, the one side or other always perplexes, whatever consequences we draw from the other, as an idea of motion not passing on, would perplex anyone, who should argue from such an idea, which is not better than an idea of motion at rest; and such another seems to me to be the idea of a space, or (which is the same thing) a number infinite, *i.e.* of a space or number, which the mind actually has, and so views, and terminates in; and of a space or number, which in a constant and endless enlarging, and progression, it can in thought never attain to. For how large soever an idea of space I have in my mind, it is no larger than it is that instant that I have it, though I be capable the next instant to double it; and so on *in infinitum*:[3] for that alone is infinite, which has no bounds; and that the idea of infinity, in which our thoughts can find none.

Number affords us the clearest idea of infinity

§9. But of all other ideas, it is *number*, as I have said, which, I think, *furnishes us with the clearest and most distinct idea of infinity*, we are capable of. For even in space and duration, when the mind pursues the idea of infinity, it there makes use of the ideas and repetitions of numbers, as of millions of millions of miles, or years, which are so many distinct ideas, kept best by number from running into a confused heap, wherein the mind loses itself; and when it has added together as many millions, *etc.* as it pleases, of known lengths of space or duration, the clearest idea it can get of infinity, is the confused incomprehensible remainder of endless addible numbers, which affords no prospect of stop or boundary.

Our different conception of the infinity of number, duration, and expansion

§10. It will, perhaps, give us a little further light into the idea we have *of infinity*, and discover to us, that it *is nothing but the infinity of number applied to determinate parts*, of which we have in our minds the distinct ideas, if we consider, that number is not generally thought by us infinite, whereas duration and extension are apt to be so; which arises from hence, that in number we are at one end as it were: for there being in number nothing less than an unit, we there stop, and are at an end; but in addition, or increase of number, we can set no bounds: and so it is like a line, whereof one end terminating with us, the other is extended still forwards beyond all that we can conceive; but in space and duration it is otherwise. For in duration, we consider it, as if this line of number were extended both ways to an unconceivable, undeterminate, and infinite length; which is evident to anyone, that will but reflect on what consideration he hath of eternity; which, I suppose, he will find to be nothing else, but the turning this infinity of number both ways, *à parte ante*, and *à parte post*,[4] as they speak. For when we would consider eternity, *à parte ante*, what do we but, beginning from ourselves, and the present time we are in, repeat in our minds the ideas of years, or ages, or any other assignable portion of duration past, with a prospect of proceeding, in such addition, with all the infinity of number; and when we would consider eternity, *à parte post*, we just after the same rate begin from ourselves, and reckon by multiplied periods yet to come, still extending that line of number, as before; and these two being put together, are that infinite duration we call *eternity*; which, as we turn our view either way, forwards or backwards, appears infinite, because we still turn that way the infinite end of number, *i.e.* the power still of adding more.

§11. The same happens also in space, wherein conceiving ourselves to be as it were in the centre, we do on all sides pursue those indeterminable lines of number; and reckoning any way from ourselves, a yard, mile, diameter of the Earth, or *orbis magnus*,[5] by the infinity of number, we add others to them, as often as we will; and having no more reason to set bounds to those repeated ideas, than we have to set bounds to number, we have that indeterminable *idea of immensity*.

Infinite divisibility

§12. And since in any bulk of matter, our thoughts can never arrive at the utmost *divisibility*, therefore there is an apparent infinity to us also in that, which has the infinity also of number, but with this difference, that in the former considerations of the infinity of space and duration, we only use addition of numbers; whereas this is like the division

of an unit into its fractions, wherein the mind also can proceed *in infinitum*, as well as in the former additions, it being indeed but the addition still of new numbers: though in the addition of the one, we can have no more the positive idea of a space infinitely great, than in the division of the other, we can have the idea of a body infinitely little; our idea of infinity being, as I may so say, a growing and fugitive idea, still in a boundless progression, that can stop nowhere.

No positive idea of infinite

§13. Though it be hard, I think, to find anyone so absurd, as to say, he has the positive idea of an actual infinite number; the infinity whereof lies only in a power still of adding any combination of units to any former number, and that as long, and as much as one will; the like also being in the infinity of space and duration, which power leaves always to the mind room for endless additions; yet there be those, who imagine they have *positive ideas of infinite* duration and space. It would, I think, be enough to destroy any such positive idea of infinite, to ask him that has it, whether he could add to it or no; which would easily show the mistake of such a positive idea. We can, I think, have no positive idea of any space or duration, which is not made up of, and commensurate to repeated numbers of feet or yards, or days and years, which are the common measures, whereof we have the ideas in our minds, and whereby we judge of the greatness of these sort of quantities. And therefore, since an idea of infinite space or duration must needs be made up of infinite parts, it can have no other infinity, than that of number, capable still of further addition; but not an actual positive idea of a number infinite. For, I think, it is evident, that the addition of finite things together (as are all lengths, whereof we have the positive ideas) can never otherwise produce the idea of infinite, than as number does; which consisting of additions of finite units one to another, suggests the idea of infinite, only by a power, we find we have of still increasing the sum, and adding more of the same kind, without coming one jot nearer the end of such progression.

§14. They who would prove their *idea of infinite to be positive*, seem to me to do it by a pleasant argument, taken from the negation of an end; which being negative, the negation of it is positive. He that considers, that the end is in body but the extremity or superficies of that body, will not, perhaps, be forward to grant, that the end is a bare negative: And he that perceives the end of his pen is black or white, will be apt to think, that the end is something more than a pure negation. Nor is it, when applied to duration, the bare negation of existence, but more properly the last moment of it.

But if they will have the end to be nothing but the bare negation of existence, I am sure they cannot deny, but that the beginning is the first instant of being, and is not by anybody conceived to be a bare negation; and therefore by their own argument, the idea of eternal, *à parte ante*, or of a duration without a beginning, is but a negative idea.

What is positive, what negative in our idea of infinite

§15. The idea of infinite, has, I confess, something of positive in all those things we apply to it. When we would think of infinite space or duration, we at first step usually make some very large idea, as, perhaps, of millions of ages, or miles, which possibly we double and multiply several times. All that we thus amass together in our thoughts, is positive, and the assemblage of a great number of positive ideas of space or duration. But what still remains beyond this, we have no more a positive distinct notion of, than a mariner has of the depth of the sea, where having let down a large portion of his sounding-line, he reaches no bottom: whereby he knows the depth to be so many fathoms, and more; but how much that more is, he hath no distinct notion at all: and could he always supply new line, and find the plummet[6] always sink, without ever stopping, he would be something in the posture of the mind reaching after a complete and positive idea of infinity. In which case, let this line be 10, or 10000 fathoms long, it equally discovers what is beyond it; and gives only this confused, and comparative idea, that this is not all, but one may yet go further. So much as the mind comprehends of any space, it has a positive idea of: but in endeavouring to make it infinite, it being always enlarging, always advancing, the idea is still imperfect and incomplete. So much space as the mind takes a view of, in its contemplation of greatness, is a clear picture, and positive in the understanding: but infinite is still greater. 1. Then *the idea of so much, is positive* and clear. 2. *The idea of greater, is also clear, but it* is but a *comparative* idea. 3. *The idea of so much greater, as cannot be comprehended*, and this *is plain negative*; not positive. For he has no positive clear idea of the largeness of any extension, (which is that sought for in the idea of infinite,) that has not a comprehensive idea of the dimensions of it: and such, nobody, I think, pretends to, in what is infinite. For to say a man has a positive clear idea of any quantity, without knowing how great it is, is as reasonable as to say, he has the positive clear idea of the number of the sands on the sea-shore, who knows not how many they be; but only that they are more than twenty. For just such a perfect and positive idea has he of an infinite space or duration, who says it is larger than the extent or duration of 10, 100, 1000, or any other number of miles,

or years, whereof he has, or can have, a positive idea; which is all the idea, I think, we have of infinite. So that what lies beyond our positive idea towards infinity, lies in obscurity; and has the indeterminate confusion of a negative idea, wherein I know, I neither do nor can comprehend all I would, it being too large for a finite and narrow capacity: and that cannot but be very far from a positive complete idea, wherein the greatest part of what I would comprehend, is left out, under the undeterminate intimation of being still greater. For to say, that having in any quantity measured so much, or gone so far, you are not yet at the end, is only to say, that the quantity is greater. So that the negation of an end in any quantity, is, in other words, only to say, that it is bigger: and a total negation of an end, is but the carrying this bigger still with you, in all the progressions your thoughts shall make in quantity; and adding this idea of still greater, to all the ideas you have, or can be supposed to have of quantity. Now, whether such an idea as that, be positive, I leave anyone to consider.

We have no positive idea of an infinite duration

§16. I ask those, who say they have a *positive idea of eternity*, whether their idea of duration includes in it succession, or not? If it does not, they ought to show the difference of their notion of duration, when applied to an eternal being, and to a finite: since, perhaps, there may be others, as well as I, who will own to them their weakness of understanding in this point; and acknowledge, that the notion they have of duration, forces them to conceive, that whatever has duration, is of a longer continuance today, than it was yesterday. If to avoid succession in eternal existence, they recur to the *punctum stans*[7] of the Schools, I suppose, they will thereby very little mend the matter, or help us to a more clear and positive idea of infinite duration, there being nothing more inconceivable to me, than duration without succession. Besides, that *punctum stans*, if it signify anything, being not *quantum*,[8] finite or infinite, cannot belong to it. But if our weak apprehensions cannot separate succession from any duration whatsoever, our idea of eternity can be nothing but of infinite succession of moments of duration, wherein anything does exist; and whether anyone has, or can have, a positive idea of an actual infinite number, I leave him to consider, till his infinite number be so great, that he himself can add no more to it; and as long as he can increase it, I doubt, he himself will think the idea he hath of it, a little too scanty for positive infinity.

§17. I think it unavoidable for every considering rational creature, that will but examine his own, or any other existence, to have the notion of an eternal wise being, who had no beginning: and such an idea of infinite

duration, I am sure I have. But this *negation of a beginning*, being but the negation of a positive thing, *scarce gives* me *a positive idea of infinity*; which whenever I endeavour to extend my thoughts to, I confess myself at a loss, and find I cannot attain any clear comprehension of it.

No positive idea of infinite space

§18. He that thinks he has a positive idea of infinite space, will, when he considers it, find that he can *no* more have a *positive idea* of the greatest, than he has *of the least space*. For in this latter, which seems the easier of the two, and more within our comprehension, we are capable only of a comparative idea of smallness, which will always be less than any one, whereof we have the positive idea. All our positive ideas of any quantity, whether great or little, have always bounds; though our comparative idea, whereby we can always add to the one, and take from the other, hath no bounds. For that which remains either great or little, not being comprehended in that positive idea, which we have, lies in obscurity: and we have no other idea of it, but of the power of enlarging the one, and diminishing the other, without ceasing. A pestle and mortar will as soon bring any particle of matter to indivisibility, as the acutest thought of a mathematician: and a surveyor may as soon with his chain, measure out infinite *space*, as a philosopher, by the quickest flight of mind, reach it; or by thinking comprehend it, which is to have a positive idea of it. He that thinks on a cube of an inch diameter, has a clear and positive idea of it in his mind, and so can frame one of $\frac{1}{2}$ a $\frac{1}{4}$ $\frac{1}{8}$, and so on till he has the idea in his thoughts of something very little: but yet reaches not the idea of that incomprehensible littleness, which division can produce. What remains of smallness, is as far from his thoughts, as when he first began; and therefore he never comes at all to have a clear and positive idea of that smallness, which is consequent to infinite divisibility.

What is positive, what negative, in our idea of infinite

§19. Everyone that looks towards infinity, does, as I have said, at first glance make some very large idea of that which he applies it to, let it be space, or duration; and possibly he wearies his thoughts, by multiplying in his mind that first large idea: but yet by that he comes no nearer to the having a *positive clear* idea of what remains, to make up a positive infinite, than the country-fellow had of the water, which was yet to come, and pass the channel of the river where he stood:

> 'Rusticus expectat dum transeat amnis, at ille
> Labitur, et labetur in omne volubilis ævum.'[9]

§20. There are some I have met with, that put so much difference between infinite duration, and infinite space, that they persuade themselves, that they have *a positive idea of eternity*; *but* that they *have not*, nor can have any *idea of infinite space*. The reason of which mistake, I suppose to be this, that finding by a due contemplation of causes and effects, that it is necessary to admit some eternal being, and so to consider the real existence of that being, as taking up, and commensurate to their idea of eternity: but on the other side, not finding it necessary, but on the contrary, apparently absurd, that body should be infinite, they forwardly conclude, they can have no idea of infinite space, because they can have no idea of infinite matter. Which consequence, I conceive, is very ill collected; because the existence of matter is no ways necessary to the existence of space, no more than the existence of motion, or the Sun, is necessary to duration, though duration uses to be measured by it: and I doubt not but a man may have the idea of 10000 miles square, without any body so big, as well as the idea of 10000 years, without any body so old. It seems as easy to me to have the idea of space empty of body, as to think of the capacity of a bushel[10] without corn, or the hollow of a nutshell without a kernel in it: it being no more necessary, that there should be existing a solid body infinitely extended, because we have an idea of the infinity of space, than it is necessary that the world should be eternal, because we have an idea of infinite duration: and why should we think our idea of infinite space, requires the real existence of matter to support it, when we find, that we have as clear an idea of infinite duration to come, as we have of infinite duration past? Though, I suppose, nobody thinks it conceivable, that anything does, or has existed in that future duration. Nor is it possible to join our idea of future duration, with present or past existence, any more than it is possible to make the ideas of yesterday, today, and tomorrow, to be the same; or bring ages past and future together, and make them contemporary. But if these men are of the mind, that they have clearer ideas of infinite duration, than of infinite space, because it is past doubt, that GOD has existed from all eternity, but there is no real matter co-extended with infinite space: yet those philosophers[11] who are of opinion, that infinite space is possessed by GOD's infinite omnipresence, as well as infinite duration by his eternal existence, must be allowed to have as clear an idea of infinite space, as of infinite duration; though neither of them, I think, has any *positive idea of infinity* in either case. For whatsoever positive ideas a man has in his mind of any quantity, he can repeat it, and add it

Some think they have a positive idea of eternity, and not space

to the former, as easy as he can add together the ideas of two days, or two paces, which are positive ideas of lengths he has in his mind, and so on, as long as he pleases: whereby, if a man had a positive idea of infinite, either duration, or space, he could add two infinites together; nay, make one infinite infinitely bigger than another, absurdities too gross to be confuted.

Supposed positive ideas of infinity cause of mistakes

§21. But yet if after all this, there be men, who persuade themselves, that they have clear positive comprehensive ideas of infinity, 'tis fit they enjoy their privilege: and I should be very glad (with some others, that I know, who acknowledge they have none such,) to be better informed by their communication. For I have been hitherto apt to think, that the great and *inextricable difficulties*, which perpetually involve all discourses *concerning infinity*, whether of space, duration, or divisibility, have been the certain *marks of a defect in our ideas of infinity*, and the disproportion the nature thereof has to the comprehension of our narrow capacities. For whilst men talk and dispute of infinite space or duration, as if they had as complete and positive ideas of them, as they have of the names they use for them, or as they have of a yard, or an hour, or any other determinate quantity, it is no wonder, if the incomprehensible nature of the thing, they discourse of, or reason about, leads them into perplexities and contradictions; and their minds be overlaid by an object too large and mighty to be surveyed and managed by them.

All these ideas from sensation and reflection

§22. If I have dwelt pretty long on the considerations of duration, space, and number; and what arises from the contemplation of them, infinity, 'tis possibly no more than the matter requires, there being few simple ideas, whose modes give more exercise to the thoughts of men, than these do. I pretend not to treat of them in their full latitude: it suffices to my design, to show, how the mind receives them, such as they are from *sensation* and *reflection*; and how even the idea we have of *infinity*, how remote soever it may seem to be from any object of sense, or operation of our mind, has nevertheless, as all our other ideas, its original there. Some mathematicians, perhaps, of advanced speculations, may have other ways to introduce into their minds ideas of infinity: but this hinders not, but that they themselves, as well as all other men, got the first ideas, which they had of infinity, from sensation and reflection, in the method we have here set down.

CHAPTER XVIII

Of other Simple Modes

§1. Though I have in the foregoing chapters, shown how from simple ideas taken in by sensation, the mind comes to extend itself even to infinity. Which however it may, of all others, seem most remote from any sensible perception, yet at last hath nothing in it, but what is made out of simple ideas; received into the mind by the senses, and afterwards there put together, by the faculty the mind has to repeat its own ideas. Though, I say, these might be instances enough of simple modes of the simple ideas of sensation; and suffice to show, how the mind comes by them: yet I shall for method's sake, though briefly, give an account of some few more, and then proceed to more complex ideas. *Modes of motion*

§2. To *slide*, *roll*, *tumble*, *walk*, *creep*, *run*, *dance*, *leap*, *skip*, and abundance others, that might be named, are words, which are no sooner heard, but everyone, who understands English, has presently in his mind distinct ideas, which are all but the different modifications of motion. *Modes of motion* answer those of extension: *swift* and *slow* are two different ideas of motion, the measures whereof are made of the distances of time and space put together, so they are complex ideas comprehending time and space with motion.

§3. The like variety have we in sounds. Every articulate word is a different *modification of sound*: by which we see, that from the sense of hearing by such modifications, the mind may be furnished with distinct ideas, to almost an infinite number. Sounds also, besides the distinct cries of birds and beasts, are modified by diversity of notes of different length put together, which make that complex idea called a *tune*, which a musician may have in his mind, when he hears or makes no sound at all, by reflecting on the ideas of those sounds, so put together silently in his own fancy. *Modes of sounds*

§4. Those of colours are also very various: some we take notice of, as the different degrees, or as they are termed, *shades of the same colour*. But since we very seldom make assemblages of colours, either for use or delight, but figure is taken in also, and has its part in it, as in painting, weaving, needle-works, *etc.* those which are taken notice of, do most com- *Modes of colours*

monly belong to mixed modes, as being made up of ideas of divers kinds, *viz.* figure and colour, such as *beauty*, *rainbow*, *etc.*

Modes of tastes

§5. All *compounded tastes and smells*, are also modes made up of these simple ideas of those senses. But they being such, as generally we have no names for, are less taken notice of, and cannot be set down in writing; and therefore must be left without enumeration, to the thoughts and experience of my reader.

§6. In general it may be observed, that those *simple modes, which are considered but as different degrees of the same simple idea*, though they are in themselves many of them very distinct ideas; yet *have ordinarily no distinct names*, nor are much taken notice of, as distinct ideas, where the difference is but very small between them. Whether men have neglected these modes, and given no names to them, as wanting measures nicely to distinguish them; or because when they were so distinguished, that knowledge would not be of general, or necessary use, I leave it to the thoughts of others; it is sufficient to my purpose to show, that all our simple ideas come to our minds only by sensation and reflection; and that when the mind has them, it can variously repeat and compound them, and so make new complex ideas. But though white, red, or sweet, *etc.* have not been modified, or made into complex ideas, by several combinations, so as to be named, and thereby ranked into species; yet some others of the simple ideas, *viz.* those of unity, duration, motion, *etc.* above instanced in, as also power and thinking have been thus modified to a great variety of complex ideas, with names belonging to them.

Why some modes have, and others have not names

§7. *The reason whereof*, I suppose, has been this, that the great concernment of men being with men one amongst another, the knowledge of men, and their actions, and the signifying of them to one another, was most necessary; and therefore they made ideas of actions very nicely modified, and gave those complex ideas names, that they might the more easily record, and discourse of those things, they were daily conversant in, without long ambages[1] and circumlocutions; and that the things they were continually to give and receive information about, might be the easier and quicker understood. That this is so, and that men in framing different complex ideas, and giving them names, have been much governed by the end of speech in general, (which is a very short and expedite way of conveying their thoughts one to another) is evident in the names, which in several arts have been found out, and applied to several complex ideas of modified actions, belonging to their

several trades, for dispatch sake, in their direction or discourses about them. Which ideas are not generally framed in the minds of men not conversant about these operations. And thence the words that stand for them, by the greatest part of men of the same language, are not understood. *v.g. colshire, drilling, filtration, cohobation*,[2] are words standing for certain complex ideas, which being seldom in the minds of any but those few, whose particular employments do at every turn suggest them to their thoughts, those names of them are not generally understood but by smiths, and chemists; who having framed the complex ideas, which these words stand for, and having given names to them, or received them from others, upon hearing of these names in communication, readily conceive those ideas in their minds; as by *cohobation* all the simple ideas of distilling, and the pouring the liquor, distilled from anything, back upon the remaining matter, and distilling it again. Thus we see, that there are great varieties of simple ideas, as of tastes and smells, which have no names; and of modes many more. Which either not having been generally enough observed, or else not being of any great use to be taken notice of in the affairs and converse of men, they have not had names given to them, and so pass not for species. This we shall have occasion hereafter to consider more at large, when we come to speak of words.

CHAPTER XIX

Of the Modes of Thinking

Sensation, remembrance, contemplation, etc.

§1. When the mind turns its view inwards upon itself, and contemplates its own actions, *thinking* is the first that occurs. In it the mind observes a great variety of modifications, and from thence receives distinct ideas. Thus the perception, which actually accompanies, and is annexed to any impression on the body, made by an external object, being distinct from all other modifications of *thinking*, furnishes the mind with a distinct idea, which we call *sensation*; which is, as it were, the actual entrance of any idea into the understanding by the senses. The same idea, when it again recurs without the operation of the like object on the external sensory, is *remembrance*: if it be sought after by the mind, and with pain and

endeavour found, and brought again in view, 'tis *recollection*: if it be held there long under attentive consideration, 'tis *contemplation*: When ideas float in our mind, without any reflection or regard of the understanding, it is that, which the French call *reverie*; our language has scarce a name for it: when the ideas that offer themselves, (for as I have observed in another place, whilst we are awake, there will always be a train of ideas succeeding one another in our minds,) are taken notice of, and, as it were, registered in the memory, it is *attention*: when the mind with great earnestness, and of choice, fixes its view on any idea, considers it on all sides, and will not be called off by the ordinary solicitation[1] of other ideas, it is that we call *intention*, or *study*: sleep, without dreaming, is rest from all these. And *dreaming* itself, is the having of ideas (whilst the outward senses are stopped, so that they receive not outward objects with their usual quickness,) in the mind, not suggested by any external objects, or known occasion; nor under any choice or conduct of the understanding at all: and whether that, which we call *ecstasy*,[2] be not dreaming with the eyes open, I leave to be examined.

§2. These are some few instances of those various *modes of thinking*, which the mind may observe in itself, and so have as distinct ideas of, as it hath of *white* and *red*, a *square* or a *circle*. I do not pretend to enumerate them all, nor to treat at large of this set of ideas, which are got from *reflection*: that would be to make a volume. It suffices to my present purpose, to have shown here, by some few examples, of what sort these ideas are, and how the mind comes by them; especially since I shall have occasion hereafter to treat more at large of *reasoning*, *judging*, *volition*, and *knowledge*, which are some of the most considerable operations of the mind, and *modes of thinking*.

The various attention of the mind in thinking

§3. But, perhaps, it may not be an unpardonable digression, nor wholly impertinent to our present design, if we reflect here upon *the different state of the mind in thinking*, which those instances of attention, *reverie*, and dreaming, *etc.* before mentioned, naturally enough suggest. That there are ideas, some or other, always present in the mind of a waking man, everyone's experience convinces him; though the mind employs itself about them with several degrees of attention. Sometimes the mind fixes itself with so much earnestness on the contemplation of some objects, that it turns their ideas on all sides; remarks their relations and circumstances; and views every part so nicely, and with such intention, that it shuts out all other thoughts, and takes no notice of the ordinary impressions made then on the senses, which at another season would produce very sensible perceptions: at other times, it barely observes

the train of ideas, that succeed in the understanding, without directing, and pursuing any of them: and at other times, it lets them pass almost quite unregarded, as faint shadows, that make no impression.

Hence 'tis probable that thinking is the action, not essence of the soul

§4. This difference of *intention*,[3] and *remission*[4] of the mind in thinking, with a great variety of degrees, between earnest study, and very near minding nothing at all, everyone, I think, has experimented in himself. Trace it a little further, and you find the mind in sleep, retired as it were from the senses, and out of the reach of those motions made on the organs of sense, which at other times produce very vivid and sensible ideas. I need not, for this, instance in those, who sleep out whole stormy nights, without hearing the thunder, or seeing the lightning, or feeling the shaking of the house, which are sensible enough to those, who are waking. But in this retirement of the mind from the senses, it often retains a yet more loose and incoherent manner of *thinking*, which we call *dreaming*: and last of all, sound sleep closes the scene quite, and puts an end to all appearances. This, I think, almost everyone has experience of in himself, and his own observation without difficulty leads him thus far. That which I would further conclude from hence, is, that since the mind can sensibly put on, at several times, several degrees of *thinking*; and be sometimes even in a waking man so remiss, as to have thoughts dim and obscure to that degree, that they are very little removed from none at all; and at last in the dark retirements of sound sleep, loses the sight perfectly of all ideas whatsoever: since, I say, this is evidently so in matter of fact, and constant experience, I ask, whether it be not probable, that *thinking is the action, and not the essence of the soul*?[5] Since the operations of agents will easily admit of intention and remission; but the essences of things, are not conceived capable of any such variation. But this by the by.

CHAPTER XX

Of Modes of Pleasure and Pain

Pleasure and pain simple ideas

§1. Amongst the simple ideas, which we receive both from *sensation* and *reflection*, *pain* and *pleasure* are two very considerable ones. For as in the body, there is sensation barely in itself, or accompanied with *pain* or *pleasure*; so the thought, or perception of the mind is simply so, or else accompanied also with *pleasure* or *pain*, delight, or trouble, call it how you please. These, like other simple ideas, cannot be described, nor their names defined; the way of knowing them, is, as of the simple ideas of the senses, only by experience. For to define them by the presence of good or evil, is no otherwise to make them known to us, than by making us reflect on what we feel in ourselves, upon the several and various operations of good and evil upon our minds, as they are differently applied to, or considered by us.

Good and evil, what

§2. Things then are good or evil, only in reference to pleasure or pain. That we call *good*, which *is apt to cause or increase pleasure, or diminish pain in us; or else to procure, or preserve us the possession of any other good, or absence of any evil.* And on the contrary, we name that *evil*, which *is apt to produce or increase any pain, or diminish any pleasure in us; or else to procure us any evil, or deprive us of any good.* By pleasure and pain, I must be understood to mean of body or mind, as they are commonly distinguished; though in truth, they be only different constitutions of the mind, sometimes occasioned by disorder in the body, sometimes by thoughts of the mind.

Our passions moved by good and evil

§3. *Pleasure* and *pain*, and that which causes them, good and evil, are the hinges on which our *passions* turn: and if we reflect on ourselves, and observe how these, under various considerations, operate in us; what modifications or tempers of mind, what internal sensations (if I may so call them,) they produce in us, we may thence form to ourselves the ideas of our *passions*.

Love

§4. Thus anyone reflecting upon the thought he has of the delight, which any present, or absent thing is apt to produce in him, has the idea we call *love*. For when a man declares in autumn, when he is eating them, or in spring, when there are none, that he *loves* grapes, it is no more, but that the taste of grapes delights him; let an alteration of health or constitu-

tion destroy the delight of their taste, and he then can be said to *love* grapes no longer.

Hatred

§5. On the contrary, the thought of the pain, which anything present or absent is apt to produce in us, is what we call *hatred*. Were it my business here, to inquire any further than into the bare ideas of our passions, as they depend on different modifications of pleasure and pain, I should remark, that our *love* and *hatred* of inanimate insensible beings, is commonly founded on that pleasure and pain which we receive from their use and application any way to our senses, though with their destruction: but *hatred* or *love*, to beings capable of happiness or misery, is often the uneasiness or delight, which we find in ourselves arising from a consideration of their very being, or happiness. Thus the being and welfare of a man's children or friends, producing constant delight in him, he is said constantly to *love* them. But it suffices to note, that our ideas of *love* and *hatred*, are but the dispositions of the mind, in respect of pleasure and pain in general, however caused in us.

Desire

§6. The uneasiness a man finds in himself upon the absence of anything, whose present enjoyment carries the idea of delight with it, is that we call *desire*, which is greater or less, as that uneasiness is more or less vehement. Where, by the by, it may perhaps be of some use to remark, that the chief if not only spur to human industry and action, is uneasiness. For whatever good is proposed, if its absence carries no displeasure nor pain with it; if a man be easy and content without it, there is no desire of it, nor endeavour after it; there is no more but a bare *velleity*,[1] the term used to signify the lowest degree of desire, and that which is next to none at all, when there is so little uneasiness in the absence of anything, that it carries a man no further than some faint wishes for it, without any more effectual or vigorous use of the means to attain it. *Desire* also is stopped or abated by the opinion of the impossibility or unattainableness of the good proposed, as far as the uneasiness is cured or allayed by that consideration. This might carry our thoughts further, were it seasonable in this place.

Joy

§7. *Joy* is a delight of the mind, from the consideration of the present or assured approaching possession of a good; and we are then possessed of any good, when we have it so in our power, that we can use it when we please. Thus a man almost starved, has *joy* at the arrival of relief, even before he has the pleasure of using it: and a father, in whom the very well-being of his children causes delight, is always, as long as his children

are in such a state, in the possession of that good; for he needs but to reflect on it to have that pleasure.

Sorrow §8. *Sorrow* is uneasiness in the mind, upon the thought of a good lost, which might have been enjoyed longer; or the sense of a present evil.

Hope §9. *Hope* is that pleasure in the mind, which everyone finds in himself, upon the thought of a profitable future enjoyment of a thing, which is apt to delight him.

Fear §10. *Fear* is an uneasiness of the mind, upon the thought of future evil likely to befall us.

Despair §11. *Despair* is the thought of the unattainableness of any good, which works differently in men's minds, sometimes producing uneasiness or pain, sometimes rest and indolency.

Anger §12. *Anger* is uneasiness or discomposure of the mind, upon the receipt of any injury, with a present purpose of revenge.

Envy §13. *Envy* is an uneasiness of mind, caused by the consideration of a good we desire, obtained by one, we think should not have had it before us.

What passions all men have §14. These two last, *envy* and *anger*, not being caused by pain and pleasure simply in themselves, but having in them some mixed considerations of ourselves and others, are not therefore to be found in all men, because those other parts of valuing their merits, or intending revenge, is wanting in them: but all the rest terminated purely in pain and pleasure, are, I think, to be found in all men. For we *love*, *desire*, *rejoice*, and *hope*, only in respect of pleasure; we *hate*, *fear*, and *grieve* only in respect of pain ultimately: in fine, all these passions are moved by things, only as they appear to be the causes of pleasure and pain, or to have pleasure or pain some way or other annexed to them. Thus we extend our hatred usually to the subject, (at least if a sensible or voluntary agent,) which has produced pain in us, because the fear it leaves, is a constant pain: but we do not so constantly love what has done us good; because pleasure operates not so strongly on us, as pain; and because we are not so ready to have hope, it will do so again. But this by the by.

Pleasure and pain what §15. By *pleasure* and *pain*, delight and uneasiness, I must all along be understood (as I have above intimated) to mean, not only bodily pain and pleasure, but whatsoever *delight* or *uneasiness* is felt by us, whether arising from any grateful, or unacceptable sensation or reflection.

§16. 'Tis further to be considered, that in reference to the passions, the removal or *lessening of a pain is* considered, and operates as a *pleasure*: and the loss or diminishing of a pleasure, as a pain.

§17. The passions too have most of them in most persons operations on the body, and cause various changes in it: which not being always sensible, do not make a necessary part of the idea of each passion. For *shame*, which is an uneasiness of the mind, upon the thought of having done something, which is indecent, or will lessen the valued esteem, which others have for us, has not always blushing accompanying it. *Shame*

§18. I would not be mistaken here, as if I meant this as a discourse of the *passions*; they are *many more than those* I have here named: and those I have taken notice of, would each of them require a much larger, and more accurate discourse. I have only mentioned these here, as so many instances of modes of pleasure and pain resulting in our minds, from various considerations of good and evil. I might, perhaps, have instanced in other modes of pleasure and pain more simple than these, as the pain of *hunger* and *thirst*, and the pleasure of eating and drinking to remove them; the pain of tender eyes, and the pleasure of music; pain from captious[2] uninstructive wrangling,[3] and the pleasure of rational conversation with a friend, or of well directed study in the search and discovery of truth. But the passions being of much more concernment to us, I rather made choice to instance in them, and show how the ideas we have of them, are derived from sensation and reflection. *These instances to show how our ideas of the passions are got from sensation and reflection*

CHAPTER XXI

Of Power

§1. The mind being every day informed, by the senses, of the alteration of those simple ideas, it observes in things without; and taking notice how one comes to an end, and ceases to be, and another begins to exist, which was not before; reflecting also on what passes within itself, and observing a constant change of its ideas, sometimes by the impression of outward objects on the senses, and sometimes by the determination of its *This idea how got*

own choice; and concluding from what it has so constantly observed to have been, that the like changes will for the future be made, in the same things, by like agents, and by the like ways, considers in one thing the possibility of having any of its simple ideas changed, and in another the possibility of making that change; and so comes by that idea which we call *power*. Thus we say, fire has a *power* to melt gold, *i.e.* to destroy the consistency of its insensible parts, and consequently its hardness, and make it fluid; and gold has a *power* to be melted: that the Sun has a *power* to blanch[1] wax, and wax a *power* to be blanched by the Sun, whereby the yellowness is destroyed, and whiteness made to exist in its room. In which, and the like cases, the *power* we consider, is in reference to the change of perceivable ideas. For we cannot observe any alteration to be made in, or operation upon anything, but by the observable change of its sensible ideas; nor conceive any alteration to be made, but by conceiving a change of some of its ideas.

Power active and passive

§2. *Power* thus considered, is twofold, *viz.* as able to make, or able to receive any change: the one may be called *active*, and the other *passive power*. Whether matter be not wholly destitute of *active power*, as its author GOD is truly above all *passive power*; and whether the intermediate state of created spirits be not that alone, which is capable of both *active* and *passive power*, may be worth consideration. I shall not now enter into that inquiry, my present business being not to search into the original of power, but how we come by the idea of it. But since *active powers* make so great a part of our complex ideas of natural substances, (as we shall see hereafter,) and I mention them as such, according to common apprehension; yet they being not, perhaps, so truly *active powers*, as our hasty thoughts are apt to represent them, I judge it not amiss, by this intimation, to direct our minds to the consideration of GOD and spirits, for the clearest idea of *active power*.

Power includes relation

§3. I confess *power includes in it some kind of relation*, (a relation to action or change,) as indeed which of our *ideas*, of what kind soever, when attentively considered, does not? For our ideas of extension, duration, and number, do they not all contain in them a secret relation of the parts? Figure and motion have something relative in them much more visibly: and sensible qualities, as colours and smells, *etc.* what are they but the *powers* of different bodies, in relation to our perception *etc.*? And if considered in the things themselves, do they not depend on the bulk, figure, texture, and motion of the parts? All which include some kind of relation

in them. Our idea therefore of *power*, I think, may well have a place amongst other simple ideas, and be considered as one of them, being one of those, that make a principal ingredient in our complex ideas of substances, as we shall hereafter have occasion to observe.

The clearest idea of active power had from spirit

§4. We are abundantly furnished with the idea of *passive power*, by almost all sorts of sensible things. In most of them we cannot avoid observing their sensible qualities, nay, their very substances to be in a continual flux: and therefore with reason we look on them as liable still to the same change. Nor have we of *active power* (which is the more proper signification of the word *power*) fewer instances. Since whatever change is observed, the mind must collect a power somewhere, able to make that change, as well as a possibility in the thing itself to receive it. But yet, if we will consider it attentively, bodies, by our senses, do not afford us so clear and distinct an idea of *active power*, as we have from reflection on the operations of our minds. For all *power* relating to action, and there being but two sorts of action, whereof we have any idea, *viz.* thinking and motion, let us consider whence we have the clearest ideas of the *powers*, which produce these actions. 1. Of thinking, body affords us no idea at all, it is only from reflection that we have that: 2. neither have we from body any idea of the beginning of motion. A body at rest affords us no idea of any *active power* to move; and when it is set in motion itself, that motion is rather a passion, than an action in it. For when the ball obeys the stroke of a billiard-stick, it is not any action of the ball, but bare passion: also when by impulse it sets another ball in motion, that lay in its way, it only communicates the motion it had received from another, and loses in itself so much, as the other received; which gives us but a very obscure idea of an *active power* of moving in body, whilst we observe it only to transfer, but not produce any motion. For it is but a very obscure idea of *power*, which reaches not the production of the action, but the continuation of the passion. For so is motion, in a body impelled by another: the continuation of the alteration made in it from rest to motion being little more an action than the continuation of the alteration of its figure by the same blow, is an action. The idea of the beginning of motion, we have only from reflection on what passes in ourselves, where we find by experience, that barely by willing it, barely by a thought of the mind, we can move the parts of our bodies, which were before at rest. So that it seems to me, we have from the observation of the operation of bodies by our senses, but a very imperfect obscure idea of *active power*, since they afford us not any idea in themselves

of the *power* to begin any action, either motion or thought. But if, from the impulse, bodies are observed to make one upon another, anyone thinks he has a clear idea of *power*, it serves as well to my purpose, *sensation* being one of those ways, whereby the mind comes by its ideas: only I thought it worth while to consider here by the way, whether the mind doth not receive its idea of *active power* clearer from reflection on its own operations, than it doth from any external sensation.

Will and understanding, two powers

§5. This at least I think evident, that we find in ourselves a *power* to begin or forbear, continue or end several actions of our minds, and motions of our bodies, barely by a thought or preference of the mind ordering, or, as it were, commanding the doing or not doing such or such a particular action. This *power* which the mind has, thus to order the consideration of any idea, or the forbearing to consider it; or to prefer the motion of any part of the body to its rest, and *vice versâ* in any particular instance, is that which we call the *will*. The actual exercise of that power, by directing any particular action, or its forbearance, is that which we call *volition* or *willing*. The forbearance of that action, consequent to such order or command of the mind, is called *voluntary*. And whatsoever action is performed without such a thought of the mind, is called *involuntary*. The power of perception is that which we call the *understanding*. Perception, which we make the act of the understanding, is of three sorts: 1. the perception of ideas in our minds. 2. The perception of the signification of signs. 3. The perception of the connexion or repugnancy, agreement or disagreement, that there is between any of our ideas. All these are attributed to the *understanding*, or perceptive power, though it be the two latter only that use allows us to say we understand.

Faculties

§6. These powers of the mind, *viz.* of *perceiving*, and of *preferring*, are usually called by another name: and the ordinary way of speaking is, that the *understanding* and *will* are two *faculties* of the mind; a word proper enough, if it be used as all words should be, so as not to breed any confusion in men's thoughts, by being supposed (as I suspect it has been) to stand for some real beings in the soul, that performed those actions of understanding and volition. For when we say, the *will* is the commanding and superior faculty of the soul; that it is, or is not free; that it determines the inferior faculties; that it follows the dictates of the *understanding*, etc. though these, and the like expressions, by those that carefully attend to their own ideas, and conduct their thoughts more by the evidence of things, than the sound of words, may be understood in a clear and distinct sense: yet I suspect, I

say, that this way of speaking of *faculties*, has misled many into a confused notion of so many distinct agents in us, which had their several provinces and authorities, and did command, obey, and perform several actions, as so many distinct beings; which has been no small occasion of wrangling, obscurity, and uncertainty in questions relating to them.

Whence the ideas of liberty and necessity

§7. Everyone, I think, finds in himself a *power* to begin or forbear, continue or put an end to several actions in himself. From the consideration of the extent of this power of the mind over the actions of the man, which everyone finds in himself, arise the ideas of *liberty* and *necessity*.

Liberty what

§8. All the actions, that we have any idea of, reducing themselves, as has been said, to these two, *viz.* thinking and motion, so far as a man has a power to think, or not to think; to move, or not to move, according to the preference or direction of his own mind, so far is a man *free*. Wherever any performance or forbearance are not equally in a man's power; wherever doing or not doing, will not equally follow upon the preference of his mind directing it, there he is not *free*, though perhaps the action may be voluntary. So that the idea of *liberty*, is the idea of a power in any agent to do or forbear any particular action, according to the determination or thought of the mind, whereby either of them is preferred to the other; where either of them is not in the power of the agent to be produced by him according to his *volition*, there he is not at *liberty*, that agent is under *necessity*. So that *liberty* cannot be, where there is no thought, no volition, no will; but there may be thought, there may be will, there may be volition, where there is no *liberty*. A little consideration of an obvious instance or two, may make this clear.

Supposes the understanding, and will

§9. A tennis-ball, whether in motion by the stroke of a racket, or lying still at rest, is not by anyone taken to be a *free agent*. If we inquire into the reason, we shall find it is, because we conceive not a tennis-ball to think, and consequently not to have any volition, or preference of motion to rest, or *vice versâ*; and therefore has not *liberty*, is not a free agent; but all its both motion and rest, come under our idea of *necessary*, and are so called. Likewise a man falling into the water, (a bridge breaking under him,) has not herein liberty, is not a free agent. For though he has volition, though he prefers his not falling to falling; yet the forbearance of that motion not being in his power, the stop or cessation of that motion follows not upon his volition; and therefore therein he is not *free*. So a man striking himself, or his friend, by a convulsive motion of his arm, which it

is not in his power, by volition or the direction of his mind to stop, or forbear; nobody thinks he has in this *liberty*; everyone pities him, as acting by necessity and constraint.

Belongs not to volition

§10. Again, suppose a man be carried, whilst fast asleep, into a room, where is a person he longs to see and speak with; and be there locked fast in, beyond his power to get out: he awakes, and is glad to find himself in so desirable company, which he stays willingly in, *i.e.* prefers his stay to going away. I ask, is not this stay voluntary? I think, nobody will doubt it; and yet being locked fast in, 'tis evident he is not at liberty not to stay, he has not freedom to be gone. So that *liberty is not an idea belonging to volition*, or preferring; but to the person having the power of doing, or forbearing to do, according as the mind shall choose or direct. Our idea of liberty reaches as far as that power, and no further. For wherever restraint comes to check that power, or compulsion takes away that indifferency of ability on either side to act, or to forbear acting, there *liberty*, and our notion of it, presently ceases.

Voluntary opposed to involuntary, not to necessary

§11. We have instances enough, and often more than enough in our own bodies. A man's heart beats, and the blood circulates, which 'tis not in his power by any thought or volition to stop; and therefore in respect of these motions, where rest depends not on his choice, nor would follow the determination of his mind, if it should prefer it, he is not a *free agent*. Convulsive motions agitate his legs, so that though he *wills* it never so much, he cannot by any power of his mind stop their motion, (as in that odd disease called *Chorea Sancti Viti*,[2]) but he is perpetually dancing: he is not at liberty in this action, but under as much necessity of moving, as a stone that falls, or a tennis-ball struck with a racket. On the other side, a palsy or the stocks[3] hinder his legs from obeying the determination of his mind, if it would thereby transfer his body to another place. In all these there is want of *freedom*, though the sitting still even of a paralytic, whilst he prefers it to a removal, is truly voluntary. *Voluntary* then *is not opposed to necessary; but to involuntary*. For a man may prefer what he can do, to what he cannot do; the state he is in, to its absence or change, though necessity has made it in itself unalterable.

Liberty what

§12. As it is in the motions of the body, so it is in the thoughts of our minds; where any one is such, that we have power to take it up, or lay it by, according to the preference of the mind, there we are *at liberty*. A waking man being under the necessity of having some ideas constantly in his mind, is not at *liberty* to think, or not to think; no more than he is at

liberty, whether his body shall touch any other, or no: but whether he will remove his contemplation from one idea to another, is many times in his choice; and then he is in respect of his ideas, as much at *liberty*, as he is in respect of bodies he rests on: he can at pleasure remove himself from one to another. But yet some ideas to the mind, like some motions to the body, are such, as in certain circumstances it cannot avoid, nor obtain their absence by the utmost effort it can use. A man on the rack,[4] is not at *liberty* to lay by the idea of pain, and divert himself with other contemplations: and sometimes a boisterous passion hurries our thoughts, as a hurricane does our bodies, without leaving us the liberty of thinking on other things, which we would rather choose. But as soon as the mind regains the power to stop or continue, begin or forbear any of these motions of the body without, or thoughts within, according as it thinks fit to prefer either to the other, we then consider the man as a *free agent* again.

Necessity what

§13. Wherever thought is wholly wanting, or the power to act or forbear according to the direction of thought, there *necessity* takes place. This in an agent capable of volition, when the beginning or continuation of any action is contrary to that preference of his mind, is called *compulsion*; when the hindering or stopping any action is contrary to his volition, it is called *restraint*. Agents that have no thought, no volition at all, are in everything *necessary* agents.

Liberty belongs not to the will

§14. If this be so, (as I imagine it is,) I leave it to be considered, whether it may not help to put an end to that long agitated, and, I think, unreasonable, because unintelligible, question, *viz. whether man's will be free, or no*? For if I mistake not, it follows, from what I have said, that the question itself is altogether improper; and it is as insignificant to ask, whether man's *will* be free, as to ask, whether his sleep be swift, or his virtue square: *liberty* being as little applicable to the *will*, as swiftness of motion is to sleep, or squareness to virtue. Everyone would laugh at the absurdity of such a question, as either of these; because it is obvious, that the modifications of motion belong not to sleep, nor the difference of figure to virtue: and when anyone well considers it, I think he will as plainly perceive, that *liberty*, which is but a power, belongs only to agents, and cannot be an attribute or modification of the *will*, which is also but a power.

Volition

§15. Such is the difficulty of explaining, and giving clear notions of internal actions by sounds, that I must here warn my reader that *ordering*, *directing*, *choosing*, *preferring*, etc. which I have made use of, will not distinctly

enough express *volition*, unless he will reflect on what he himself does, when he *wills*. For example, *preferring* which seems perhaps best to express the act of *volition*, does it not precisely. For though a man would prefer flying to walking, yet who can say he ever *wills* it? *Volition*, 'tis plain, is an act of the mind knowingly exerting that dominion it takes itself to have over any part of the man, by employing it in, or withholding it from any particular action. And what is the *will*, but the faculty to do this? And is that faculty anything more in effect, than a power, the power of the mind to determine its thought, to the producing, continuing, or stopping any action, as far as it depends on us? For can it be denied, that whatever agent has a power to think on its own actions, and to prefer their doing or omission either to other, has that faculty called *will*? *Will* then is nothing but such a power. *Liberty*, on the other side, is the power a man has to do or forbear doing any particular action, according as its doing or forbearance has the actual preference in the mind, which is the same thing as to say, according as he himself *wills* it.

Powers belong to agents

§16. 'Tis plain then, that the *will* is nothing but one power or ability, and *freedom* another power or ability: so that to ask, whether the *will has freedom*, is to ask, whether one power has another power, one ability another ability; a question at first sight too grossly absurd to make a dispute, or need an answer. For who is it that sees not, that *powers* belong only to *agents*, and *are attributes only of substances, and not of powers* themselves? So that this way of putting the question, *viz.* whether the *will be free*? is in effect to ask, whether the *will* be a substance, an agent? or at least to suppose it, since freedom can properly be attributed to nothing else. If freedom can with any propriety of speech be applied to power, it may be attributed to the power that is in a man, to produce, or forbear producing motion in parts of his body, by choice or preference; which is that which denominates him free, and is freedom itself. But if anyone should ask, whether freedom were free, he would be suspected not to understand well what he said; and he would be thought to deserve Midas's ears,[5] who knowing that rich was a denomination from the possession of riches, should demand whether riches themselves were rich.

§17. However the *name faculty*, which men have given to this power called the *will*, and whereby they have been led into a way of talking of the will as acting, may, by an appropriation that disguises its true sense, serve a little to palliate[6] the absurdity; yet the *will* in truth, signifies nothing but a power, or ability, to prefer or choose: and when the *will*, under the name of a *faculty*, is considered, as it is, barely as an ability to do something, the

absurdity, in saying it is free, or not free, will easily discover itself. For if it be reasonable to suppose and talk of *faculties*, as distinct beings, that can act, (as we do, when we say the *will* orders, and the *will* is free,) 'tis fit that we should make a speaking *faculty*, and a walking *faculty*, and a dancing *faculty*, by which those actions are produced, which are but several modes of motion; as well as we make the *will* and *understanding* to be *faculties*, by which the actions of choosing and perceiving are produced, which are but several modes of thinking: and we may as properly say, that 'tis the singing *faculty* sings, and the dancing *faculty* dances; as that the *will* chooses, or that the understanding conceives; or, as is usual, that the *will* directs the understanding, or the understanding obeys, or obeys not the *will*: it being altogether as proper and intelligible to say, that the power of speaking directs the power of singing, or the power of singing obeys or disobeys the power of speaking.

§18. This way of talking, nevertheless, has prevailed, and, as I guess, produced great confusion. For these being all different powers in the mind, or in the man, to do several actions, he exerts them as he thinks fit: but the power to do one action, is not operated on by the power of doing another action. For the power of thinking operates not on the power of choosing, nor the power of choosing on the power of thinking; no more than the power of dancing operates on the power of singing, or the power of singing on the power of dancing, as anyone, who reflects on it, will easily perceive: and yet this is it, which we say, when we thus speak, that *the will operates on the understanding, or the understanding on the will.*

§19. I grant, that this or that actual thought, may be the occasion of volition, or exercising the power a man has to choose; or the actual choice of the mind, the cause of actual thinking on this or that thing: as the actual singing of such a tune, may be the occasion of dancing such a dance, and the actual dancing of such a dance, the occasion of singing such a tune. But in all these, it is not one *power* that operates on another: but it is the mind that operates, and exerts these powers; it is the man that does the action, it is the agent that has power, or is able to do. For *powers* are relations, not agents: and *that which has the power, or not the power to operate, is that alone, which is, or is not free*, and not the power itself: for freedom, or not freedom, can belong to nothing, but what has, or has not a power to act.

Liberty belongs not to the will

§20. The attributing to *faculties* that which belonged not to them, has given occasion to this way of talking: but the

introducing into discourses concerning the mind, with the name of *faculties*, a notion of their operating, has, I suppose, as little advanced our knowledge in that part of ourselves, as the great use and mention of the like invention of *faculties*, in the operations of the body, has helped us in the knowledge of physic.[7] Not that I deny there are *faculties*, both in the body and mind: they both of them have their *powers* of operating, else neither the one nor the other could operate. For nothing can operate, that is not able to operate; and that is not able to operate, that has no *power* to operate. Nor do I deny, that those words, and the like, are to have their place in the common use of languages, that have made them current. It looks like too much affectation wholly to lay them by: and philosophy itself, though it likes not a gaudy dress, yet when it appears in public, must have so much complacency, as to be clothed in the ordinary fashion and language of the country, so far as it can consist with truth and perspicuity. But the fault has been, that faculties have been spoken of, and represented, as so many distinct agents. For it being asked, what it was that digested the meat in our stomachs? It was a ready, and very satisfactory answer, to say, that it was the *digestive faculty*.[8] What was it that made anything come out of the body? The *expulsive faculty*. What moved? The *motive faculty*: and so in the mind, the *intellectual faculty*, or the understanding, understood; and the *elective faculty*, or the will, willed or commanded: which is in short to say, that the ability to digest, digested; and the ability to move, moved; and the ability to understand, understood. For *faculty*, *ability*, and *power*, I think, are but different names of the same things: which ways of speaking, when put into more intelligible words, will, I think, amount to thus much; that digestion is performed by something that is able to digest; motion by something able to move; and understanding by something able to understand. And in truth it would be very strange, if it should be otherwise; as strange as it would be for a man to be free without being able to be free.

But to the agent or man

§21. To return then to the inquiry about liberty, I think *the question is not proper, whether the will be free, but whether a man be free.* Thus, I think,

1. That so far as anyone can, by the direction or choice of his mind, preferring the existence of any action, to the non-existence of that action, and, *vice versâ*, make it to exist, or not exist, so far he is *free*. For if I can, by a thought, directing the motion of my finger, make it move, when it was at rest, or *vice versâ*, 'tis evident, that in respect of that, I am free: and if I can, by a like thought of my mind, preferring one to the other, produce

either words, or silence, I am at liberty to speak, or hold my peace; and *as far as this power reaches, of acting, or not acting, by the determination of his own thought preferring either, so far is a man free.* For how can we think anyone freer than to have the power to do what he will? And so far as anyone can, by preferring any action to its not being, or rest to any action, produce that action or rest, so far can he do what he will. For such a preferring of action to its absence, is the willing of it; and we can scarce tell how to imagine any *being* freer, than to be able to do what he *wills*. So that in respect of actions, within the reach of such a power in him, a man seems as free, as 'tis possible for freedom to make him.

In respect of willing, a man is not free

§22. But the inquisitive mind of man, willing to shift off from himself, as far as he can, all thoughts of guilt, though it be by putting himself into a worse state, than that of fatal necessity, is not content with this: freedom, unless it reaches further than this, will not serve the turn: and it passes for a good plea, that a man is not free at all, if he be not as free to will, as he is to act, what he wills. Concerning a man's liberty, there yet therefore is raised this further question, *whether a man be free to will*; which, I think, is what is meant, when it is disputed, whether the *will* be free. And as to that I imagine,

§23. 2. That *willing*, or *volition* being an action, and freedom consisting in a power of acting, or not acting, *a man in respect of willing, or the act of volition, when any action in his power is once proposed to his thoughts, as presently to be done, cannot be free.* The reason whereof is very manifest: for it being unavoidable that the action depending on his *will*, should exist, or not exist; and its existence, or not existence, following perfectly the determination, and preference of his will, he cannot avoid willing the existence, or not existence of that action; it is absolutely necessary that he *will* the one, or the other, *i.e. prefer* the one to the other; since one of them must necessarily follow; and that which does follow, follows by the choice and determination of his mind, that is, by his *willing it*: for if he did not *will* it, it would not be. So that in respect of the act of *willing*, a man in such case is not free: liberty consisting in a power to act, or not to act, which, in regard of volition, a man, upon such a proposal, has not. For it is unavoidably necessary to prefer the doing, or forbearance, of an action in a man's power, which is once so proposed to his thoughts; a man must necessarily *will* the one, or the other of them, upon which preference, or volition, the action, or its forbearance, certainly follows, and is truly voluntary: but the act of volition, or preferring one of the two, being that which he cannot avoid, a man in

respect of that act of *willing*, is under a necessity, and so cannot be free; unless necessity and freedom can consist together, and a man can be free and bound at once.

§24. This then is evident, that in all proposals of present action, *a man is not at liberty to will, or not to will, because he cannot forbear willing*: liberty consisting in a power to act, or to forbear acting, and in that only. For a man that sits still, is said yet to be at liberty, because he can walk if he *wills* it. But if a man sitting still has not a power to remove himself, he is not at liberty; so likewise a man falling down a precipice, though in motion, is not at liberty, because he cannot stop that motion, if he would. This being so, 'tis plain that a man that is walking, to whom it is proposed to give off walking, is not at liberty, whether he *will* determine himself to walk, or give off walking, or no: he must necessarily prefer one, or the other of them; walking or not walking; and so it is in regard of all other actions in our power so proposed, which are the far greater number. For considering the vast number of voluntary actions that succeed one another every moment that we are awake, in the course of our lives, there are but few of them that are thought on or proposed to the *will*, 'till the time they are to be done: and in all such actions, as I have shown, the mind in respect of *willing*, has not a power to act, or not to act, wherein consists liberty: the mind in that case has not a power to forbear *willing*; it cannot avoid some determination concerning them, let the consideration be as short, the thought as quick, as it will, it either leaves the man in the state he was before thinking, or changes it; continues the action, or puts an end to it. Whereby it is manifest, that it orders and directs one in preference to, or with neglect of the other, and thereby either the continuation or change becomes unavoidably voluntary.

The will determined by something without it

§25. Since then it is plain that in most cases a man is not at liberty, whether he will *will*, or no; the next thing demanded is, *whether a man be at liberty to will which of the two he pleases, motion or rest.* This question carries the absurdity of it so manifestly in itself, that one might thereby sufficiently be convinced, that liberty concerns not the will. For to ask, whether a man be at liberty to will either motion, or rest; speaking, or silence; which he pleases, is to ask, whether a man can *will*, what he *wills*; or be pleased with what he is pleased with. A question, which, I think, needs no answer: and they, who can make a question of it, must suppose one will to determine the acts of another, and another to determinate that; and so on *in infinitum*.[9]

§26. To avoid these, and the like absurdities, nothing can be of greater use, than to establish in our minds determined ideas of the things under consideration. If the ideas of liberty, and volition, were well fixed in our understandings, and carried along with us in our minds, as they ought, through all the questions that are raised about them, I suppose, a great part of the difficulties, that perplex men's thoughts, and entangle their understandings, would be much easier resolved; and we should perceive where the confused signification of terms, or where the nature of the thing caused the obscurity.

Freedom

§27. *First* then, it is carefully to be remembered, that *freedom consists in the dependence of the existence, or not existence of any action, upon our volition of it, and not in the dependence of any action, or its contrary, on our preference.* A man standing on a cliff, is at liberty to leap twenty yards downwards into the sea, not because he has a power to do the contrary action, which is to leap twenty yards upwards, for that he cannot do: but he is therefore free, because he has a power to leap, or not to leap. But if a greater force than his, either holds him fast, or tumbles him down, he is no longer free in that case: because the doing, or forbearance of that particular action, is no longer in his power. He that is a close prisoner, in a room twenty foot square, being at the north side of his chamber, is at liberty to walk twenty foot southward, because he can walk, or not walk it: But is not, at the same time, at liberty, to do the contrary; *i.e.* to walk twenty foot northward.

In this then consists freedom, *viz.* in our being able to act, or not to act, according as we shall choose, or *will.*

Volition what

§28. *Secondly*, we must remember, that *volition*, or *willing*, is an act of the mind directing its thought to the production of any action, and thereby exerting its power to produce it. To avoid multiplying of words, I would crave leave here, under the word *action*, to comprehend the forbearance too of any action proposed; *sitting still*, or *holding one's peace*, when *walking* or *speaking* are proposed, though mere forbearances, requiring as much the determination of the *will*, and being often as weighty in their consequences, as the contrary actions, may, on that consideration, well enough pass for actions too: but this I say, that I may not be mistaken, if for brevity's sake I speak thus.

What determines the will

§29. *Thirdly*, the *will* being nothing but a power in the mind to direct the operative faculties of a man to motion or rest, as far as they depend on such direction. To the question, what is it determines

the will? The true and proper answer is, the mind. For that which determines the general power of directing, to this or that particular direction, is nothing but the agent itself exercising the power it has, that particular way. If this answer satisfies not, 'tis plain the meaning of the question, 'what determines the will?' is this, what moves the mind, in every particular instance, to determine its general power of directing, to this or that particular motion or rest? And to this I answer, the motive, for continuing in the same state or action, is only the present satisfaction in it; the motive to change, is always some *uneasiness*: nothing setting us upon the change of state, or upon any new action, but some *uneasiness*. This is the great motive that works on the mind to put it upon action, which for shortness sake we will call *determining of the will*, which I shall more at large explain.

Will and desire must not be confounded

§30. But in the way to it, it will be necessary to premise, that though I have above endeavoured to express the act of *volition*, by *choosing*, *preferring*, and the like terms, that signify *desire* as well as *volition*, for want of other words to mark that act of the mind, whose proper name is *willing* or *volition*; yet it being a very simple act, whosoever desires to understand what it is, will better find it by reflecting on his own mind, and observing what it does, when it *wills*, than by any variety of articulate sounds whatsoever. This caution of being careful not to be misled by expressions, that do not enough keep up the difference between the *will*, and several acts of the mind, that are quite distinct from it, I think the more necessary: because I find the will often confounded with several of the affections, especially *desire*; and one put for the other, and that by men,[10] who would not willingly be thought, not to have had very distinct notions of things, and not to have writ very clearly about them. This, I imagine, has been no small occasion of obscurity and mistake in this matter; and therefore is, as much as may be, to be avoided. For he, that shall turn his thoughts inwards upon what passes in his mind, when he *wills*, shall see, that the *will* or power of *volition* is conversant about nothing, but that particular determination of the mind, whereby, barely by a thought, the mind endeavours to give rise, continuation, or stop to any action, which it takes to be in its power. This well considered, plainly shows, that the *will* is perfectly distinguished from *desire*, which in the very same action may have a quite contrary tendency from that which our *wills* sets us upon. A man, whom I cannot deny, may oblige me to use persuasions to another, which at the same time I am speaking, I may wish may not prevail on him. In this case, 'tis plain the *will* and *desire* run counter. I will the action, that

tends one way, whilst my desire tends another, and that the direct contrary. A man, who by a violent fit of the gout in his limbs, finds a doziness in his head, or a want of appetite in his stomach removed, desires to be eased too of the pain of his feet or hands (for wherever there is pain there is a desire to be rid of it) though yet, whilst he apprehends, that the removal of the pain may translate the noxious humour[11] to a more vital[12] part, his will is never determined to any one action, that may serve to remove this pain. Whence it is evident, that *desiring* and *willing* are two distinct acts of the mind; and consequently that the *will*, which is but the power of *volition*, is much more distinct from *desire*.

Uneasiness determines the will

§31. To return then to the inquiry, 'what is it that determines the will in regard to our actions?' And that upon second thoughts I am apt to imagine is not, as is generally supposed, the greater good in view: but some (and for the most part the most pressing) *uneasiness* a man is at present under. This is that which successively determines the *will*, and sets us upon those actions, we perform. This *uneasiness* we may call, as it is, *desire*; which is an *uneasiness* of the mind for want of some absent good. All pain of the body, of what sort soever, and disquiet of the mind, is *uneasiness*: and with this is always joined desire, equal to the pain or *uneasiness* felt; and is scarce distinguishable from it. For *desire* being nothing but an *uneasiness* in the want of an absent good, in reference to any pain felt, ease is that absent good; and till that ease be attained, we may call it *desire*, nobody feeling pain, that he wishes not to be eased of, with a desire equal to that pain, and inseparable from it. Besides this desire of ease from pain, there is another of absent positive good, and here also the desire and *uneasiness* is equal. As much as we desire any absent good, so much are we in pain for it. But here all absent good does not, according to the greatness it has, or is acknowledged to have, cause pain equal to that greatness; as all pain causes desire equal to itself: because the absence of good is not always a pain, as the presence of pain is. And therefore absent good may be looked on, and considered without *desire*. But so much as there is anywhere of *desire*, so much there is of *uneasiness*.

Desire is uneasiness

§32. That *desire* is a state of uneasiness, everyone who reflects on himself, will quickly find. Who is there, that has not felt in *desire*, what the wise man says of hope, (which is not much different from it) that it being 'deferred makes the heart sick'?[13] and that still proportionable to the greatness of the *desire*, which sometimes raises the *uneasiness* to that pitch, that it makes people cry out, 'Give me children', give me the thing desired,

'or I die?'[14] Life itself, and all its enjoyments, is a burden cannot be borne under the lasting and unremoved pressure of such an *uneasiness*.

The uneasiness of desire determines the will

§33. Good and evil, present and absent, 'tis true, work upon the mind: but that which immediately determines the *will*, from time to time, to every voluntary action, is the *uneasiness* of *desire*, fixed on some absent good, either negative, as indolency to one in pain; or positive, as enjoyment of pleasure. That it is this *uneasiness*, that determines the *will* to the successive voluntary actions, whereof the greatest part of our lives is made up, and by which we are conducted through different courses to different ends, I shall endeavour to show both from experience, and the reason of the thing.

This the spring of action

§34. When a man is perfectly content with the state he is in, which is when he is perfectly without any *uneasiness*, what industry, what action, what *will* is there left, but to continue in it? Of this every man's observation will satisfy him. And thus we see our all-wise Maker, suitable to our constitution and frame, and knowing what it is that determines the *will*, has put into man the *uneasiness* of hunger and thirst, and other natural desires, that return at their seasons, to move and determine their *wills*, for the preservation of themselves, and the continuation of their species. For I think we may conclude, that, if the bare contemplation of these good ends, to which we are carried by these several *uneasinesses*, had been sufficient to determine the *will*, and set us on work, we should have had none of these natural pains, and perhaps in this world, little or no pain at all. 'It is better to marry than to burn', says St Paul;[15] where we may see, what it is, that chiefly drives men into the enjoyments of a conjugal life. A little burning felt pushes us more powerfully, than greater pleasures in prospect draw or allure.

The greatest positive good determines not the will, but uneasiness

§35. It seems so established and settled a maxim by the general consent of all mankind, that good, the greater good, determines the will, that I do not at all wonder, that when I first published[16] my thoughts on this subject, I took it for granted; and I imagine, that by a great many I shall be thought more excusable, for having then done so, than that now I have ventured to recede from so received an opinion. But yet upon a stricter inquiry, I am forced to conclude, that *good*, the *greater good*, though apprehended and acknowledged to be so, does not determine the *will*, until our desire, raised proportionably to it, make us *uneasy* in the want of it. Convince a man never so much, that plenty has its advantages over poverty; make him see and

own, that the handsome conveniencies of life are better than nasty penury; yet as long as he is content with the latter, and finds no *uneasiness* in it, he moves not; his *will* never is determined to any action, that shall bring him out of it. Let a man be never so well persuaded of the advantages of virtue, that it is as necessary to a man, who has any great aims in this world, or hopes in the next, as food to life: yet till he 'hungers and thirsts after righteousness';[17] till he feels an *uneasiness* in the want of it, his *will* will not be determined to any action in pursuit of this confessed greater good; but any other *uneasinesses* he feels in himself, shall take place, and carry his *will* to other actions. On the other side, let a drunkard see, that his health decays, his estate wastes; discredit and diseases, and the want of all things, even of his beloved drink attends him in the course he follows: yet the returns of *uneasiness* to miss his companions, the habitual thirst after his cups, at the usual time, drives him to the tavern, though he has in his view the loss of health and plenty, and perhaps of the joys of another life: the least of which is no inconsiderable good, but such as he confesses, is far greater than the tickling of his palate with a glass of wine, or the idle chat of a soaking club.[18] 'Tis not for want of viewing the greater good; for he sees, and acknowledges it, and in the intervals of his drinking hours, will take resolutions to pursue the greater good; but when the *uneasiness* to miss his accustomed delight returns, the greater acknowledged good loses its hold, and the present *uneasiness* determines the *will* to the accustomed action; which thereby gets stronger footing to prevail against the next occasion, though he at the same time makes secret promises to himself, that he will do so no more; this is the last time he will act against the attainment of those greater goods. And thus he is, from time to time, in the state of that unhappy complainer, 'Video meliora proboque, Deteriora sequor':[19] which sentence, allowed for true, and made good by constant experience, may this, and possibly no other way, be easily made intelligible.

Because the removal of uneasiness is the first step to happiness

§36. If we inquire into the reason of what experience makes so evident in fact, and examine why 'tis *uneasiness* alone operates on the *will*, and determines it in its choice, we shall find, that we being capable but of one determination of the will to one action at once, the present *uneasiness*, that we are under, does naturally determine the will, in order to that happiness which we all aim at in all our actions: for as much as whilst we are under any *uneasiness*, we cannot apprehend ourselves happy, or in the way to it. Pain and *uneasiness* being, by everyone, concluded, and felt, to be inconsistent with happiness; spoiling

the relish, even of those good things which we have: a little pain serving to mar all the pleasure we rejoiced in. And therefore that, which of course determines the choice of our *will* to the next action, will always be the removing of pain, as long as we have any left, as the first and necessary step towards happiness.

Because uneasiness alone is present

§37. Another reason why 'tis *uneasiness* alone determines the will, may be this. Because that alone is present, and 'tis against the nature of things, that what is absent should operate, where it is not. It may be said, that absent good may by contemplation be brought home to the mind, and made present. The idea of it indeed may be in the mind, and viewed as present there; but nothing will be in the mind as a present good, able to counterbalance the removal of any *uneasiness*, which we are under, till it raises our desire, and the *uneasiness* of that has the prevalency in determining the *will*. Till then the idea in the mind of whatever good, is there only like other ideas, the object of bare unactive speculation; but operates not on the will, nor sets us on work: the reason whereof I shall show by and by. How many are to be found, that have had lively representations set before their minds of the unspeakable joys of Heaven, which they acknowledge both possible and probable too, who yet would be content to take up with their happiness here? and so the prevailing *uneasiness* of their desires, let loose after the enjoyments of this life, take their turns in the determining their *wills*, and all that while they take not one step, are not one jot moved, towards the good things of another life, considered as never so great.

Because all who allow the joys of Heaven possible, pursue them not

§38. Were the *will* determined by the views of good, as it appears in contemplation greater or less to the understanding, which is the state of all absent good, and that which in the received opinion the *will* is supposed to move to, and to be moved by, I do not see how it could ever get loose from the infinite eternal joys of Heaven, once proposed and considered as possible. For all absent good, by which alone, barely proposed, and coming in view, the *will* is thought to be determined, and so to set us on action, being only possible, but not infallibly certain, 'tis unavoidable, that the infinitely greater possible good should regularly and constantly determine the *will* in all the successive actions it directs; and then we should keep constantly and steadily in our course towards Heaven, without ever standing still, or directing our actions to any other end: the eternal condition of a future state infinitely outweighing the expectation of riches, or honour, or any other worldly pleasure, which

we can propose to ourselves, though we should grant these the more probable to be attained: for nothing future is yet in possession, and so the expectation even of these may deceive us. If it were so, that the greater good in view determines the *will*, so great a good once proposed could not but seize the *will*, and hold it fast to the pursuit of this infinitely greatest good, without ever letting it go again: for the *will* having a power over, and directing the thoughts, as well as other actions, would, if it were so, hold the contemplation of the mind fixed to that good.

But any great uneasiness is never neglected

This would be the state of the mind, and regular tendency of the *will* in all its determinations, were it determined by that which is considered, and in view the greater good; but that it is not so, is visible in experience. The infinitely greatest confessed good being often neglected, to satisfy the successive *uneasiness* of our desires pursuing trifles. But though the greatest allowed, even everlasting unspeakable good, which has sometimes moved, and affected the mind, does not steadfastly hold the *will*, yet we see any very great and prevailing *uneasiness*, having once laid hold on the *will*, lets it not go; by which we may be convinced, what it is that determines the *will*. Thus any vehement pain of the body; the ungovernable passion of a man violently in love; or the impatient desire of revenge, keeps the *will* steady and intent; and the *will* thus determined, never lets the understanding lay by the object, but all the thoughts of the mind, and powers of the body are uninterruptedly employed that way, by the determinations of the *will*, influenced by that topping *uneasiness*, as long as it lasts; whereby it seems to me evident, that the will, or power of setting us upon one action in preference to all other, is determined in us, by *uneasiness*: and whether this be not so, I desire everyone to observe in himself.

Desire accompanies all uneasiness

§39. I have hitherto chiefly instanced in the *uneasiness* of desire, as that which determines the *will*. Because that is the chief, and most sensible; and the *will* seldom orders any action, nor is there any voluntary action performed, without some *desire* accompanying it; which I think is the reason why the *will* and *desire* are so often confounded. But yet we are not to look upon the *uneasiness* which makes up, or at least accompanies most of the other passions, as wholly excluded in the case. *Aversion*, *fear*, *anger*, *envy*, *shame*, etc. have each their *uneasiness* too, and thereby influence the *will*. These passions are scarce any of them in life and practice, simple, and alone, and wholly unmixed with others; though usually in discourse and contemplation, that carries the name, which operates strong-

est, and appears most in the present state of the mind. Nay, there is, I think, scarce any of the passions to be found without *desire* joined with it. I am sure, wherever there is *uneasiness*, there is *desire*: for we constantly desire happiness; and whatever we feel of *uneasiness*, so much, 'tis certain, we want of happiness; even in our own opinion, let our state and condition otherwise be what it will. Besides, the present moment not being our eternity, whatever our enjoyment be, we look beyond the present, and desire goes with our foresight, and that still carries the *will* with it. So that even in *joy* itself, that which keeps up the action, whereon the enjoyment depends, is the desire to continue it, and fear to lose it: and whenever a greater *uneasiness* than that takes place in the mind, the *will* presently is by that determined to some new action, and the present delight neglected.

The most pressing uneasiness naturally determines the will

§40. But we being in this world beset with sundry *uneasinesses*, distracted with different *desires*, the next inquiry naturally will be, which of them has the precedency in determining the *will* to the next action? and to that the answer is, that ordinarily, which is the most pressing of those that are judged capable of being then removed. For the *will* being the power of directing our operative faculties to some action, for some end, cannot at any time be moved towards what is judged at that time unattainable: that would be to suppose an intelligent being designedly to act for an end, only to lose its labour; for so it is to act for what is judged not attainable; and therefore very great *uneasinesses* move not the *will*, when they are judged not capable of a cure: they, in that case, put us not upon endeavours. But these set apart, the most important and urgent *uneasiness* we at that time feel, is that which ordinarily determines the *will* successively, in that train of voluntary actions, which make up our lives. The greatest present *uneasiness* is the spur to action, that is constantly felt; and for the most part determines the *will* in its choice of the next action. For this we must carry along with us, that the proper and only object of the *will* is some action of ours, and nothing else. For we producing nothing, by our *willing* it, but some action in our power, 'tis there the *will* terminates, and reaches no further.

All desire happiness

§41. If it be further asked, what 'tis moves *desire*? I answer, happiness, and that alone. *Happiness* and *misery* are the names of two extremes, the utmost bounds whereof we know not; 'tis what 'eye hath not seen, ear hath not heard, nor hath it entered into the heart of man to conceive'.[20] But of some degrees of both, we have very lively impressions, made by several instances of delight, and joy on the one side; and torment

and sorrow on the other; which, for shortness sake, I shall comprehend under the names of pleasure and pain, there being pleasure and pain of the mind, as well as the body: 'With him is fulness of joy, and pleasure for evermore':[21] or, to speak truly, they are all of the mind; though some have their rise in the mind from thought, others in the body from certain modifications of motion.

Happiness what

§42. *Happiness* then in its full extent is the utmost pleasure we are capable of, and *misery* the utmost pain: and the lowest degree of what can be called *happiness*, is so much ease from all pain, and so much present pleasure, as without which anyone cannot be content. Now because pleasure and pain are produced in us, by the operation of certain objects, either on our minds or our bodies; and in different degrees; therefore what has an aptness to produce pleasure in us, is what we call *good*, and what is apt to produce pain in us, we call *evil*, for no other reason, but for its aptness to produce pleasure and pain in us, wherein consists our *happiness* and *misery*. Further, though what is apt to produce any degree of pleasure, be in itself *good*; and what is apt to produce any degree of pain, be *evil*; yet it often happens, that we do not call it so, when it comes in competition with a greater of its sort; because when they come in competition, the degrees also of pleasure and pain have justly a preference. So that if we will rightly estimate what we call *good* and *evil*, we shall find it lies much in comparison: for the cause of every less degree of pain, as well as every greater degree of pleasure, has the nature of *good*, and *vice versâ*.

What good is desired, what not?

§43. Though this be that, which is called *good* and *evil*; and all good be the proper object of *desire* in general; yet all good, even seen, and confessed to be so, does not necessarily move every particular man's *desire*; but only that part, or so much of it, as is considered, and taken to make a necessary part of his happiness. All other good however great in reality, or appearance, excites not a man's *desires*, who looks not on it to make a part of that happiness, wherewith he, in his present thoughts, can satisfy himself. *Happiness*, under this view, everyone constantly pursues, and *desires* what makes any part of it: other things, acknowledged to be good, he can look upon without *desire*; pass by, and be content without. There is nobody, I think, so senseless as to deny, that there is pleasure in knowledge: and for the pleasures of sense, they have too many followers to let it be questioned, whether men are taken with them or no. Now let one man place his satisfaction in sensual pleasures, another in the delight of knowledge: though each of them cannot but confess, there is great pleasure

in what the other pursues; yet neither of them making the other's delight a part of his happiness, their *desires* are not moved, but each is satisfied without what the other enjoys, and so his will is not determined to the pursuit of it. But yet as soon as the studious man's hunger and thirst makes him *uneasy*, he whose *will* was never determined to any pursuit of good cheer, poignant sauces, delicious wine, by the pleasant taste he has found in them, is, by the uneasiness of hunger and thirst presently determined to eating and drinking; though possibly with great indifferency what wholesome food comes in his way. And on the other side, the epicure[22] buckles to study, when shame, or the desire to recommend himself to his mistress, shall make him *uneasy* in the want of any sort of knowledge. Thus how much soever men are in earnest, and constant in pursuit of happiness; yet they may have a clear view of good, great and confessed good, without being concerned for it, or moved by it, if they think they can make up their happiness without it. Though as to pain, that they are always concerned for; they can feel no *uneasiness* without being moved. And therefore being *uneasy* in the want of whatever is judged necessary to their happiness, as soon as any good appears to make a part of their portion of happiness, they begin to *desire* it.

Why the greatest good is not always desired

§44. This, I think, anyone may observe in himself, and others, that the *greater visible good* does not always raise men's *desires* in proportion to the greatness, it appears, and is acknowledged to have: though every little trouble moves us, and sets us on work to get rid of it. The reason whereof is evident from the nature of our *happiness* and *misery* itself. All present pain, whatever it be, makes a part of our present *misery*: but all absent good does not at any time make a necessary part of our present *happiness*, nor the absence of it make a part of our *misery*. If it did, we should be constantly and infinitely miserable; there being infinite degrees of happiness, which are not in our possession. All *uneasiness* therefore being removed, a moderate portion of good serves at present to content men; and some few degrees of pleasure in a succession of ordinary enjoyments make up a happiness, wherein they can be satisfied. If this were not so, there could be no room for those indifferent, and visibly trifling actions, to which our *wills* are so often determined; and wherein we voluntarily waste so much of our lives; which remissness could by no means consist with a constant determination of *will* or *desire* to the greatest apparent good. That this is so, I think few people need go far from home to be convinced. And indeed in this life there are not many, whose happiness reaches so far,

as to afford them a constant train of moderate mean pleasures, without any mixture of *uneasiness*; and yet they could be content to stay here for ever: though they cannot deny, but that it is possible there may be a state of eternal durable joys after this life, far surpassing all the good is to be found here. Nay, they cannot but see, that it is more possible, than the attainment, and continuation of that pittance of honour, riches, or pleasure, which they pursue; and for which they neglect that eternal state: but yet in full view of this difference, satisfied of the possibility of a perfect, secure, and lasting happiness in a future state, and under a clear conviction, that it is not to be had here whilst they bound their happiness within some little enjoyment, or aim of this life, and exclude the joys of Heaven from making any necessary part of it, their desires are not moved by this greater apparent good, nor their *wills* determined to any action, or endeavour for its attainment.

Why not being desired, it moves not the will

§45. The ordinary necessities of our lives, fill a great part of them with the *uneasiness* of *hunger*, *thirst*, *heat*, *cold*, *weariness* with labour, and *sleepiness* in their constant returns, *etc.* To which, if besides accidental harms, we add the fantastical *uneasiness*, (as itch after *honour*, *power*, or *riches*, *etc.*) which acquired habits by fashion, example, and education, have settled in us, and a thousand other irregular desires, which custom has made natural to us, we shall find, that a very little part of our life is so vacant from these *uneasinesses*, as to leave us free to the attraction of remoter absent good. We are seldom at ease, and free enough from the solicitation of our natural or adopted desires, but a constant succession of *uneasinesses* out of that stock, which natural wants, or acquired habits have heaped up, take the *will* in their turns; and no sooner is one action dispatched, which by such a determination of the *will* we are set upon, but another *uneasiness* is ready to set us on work. For the removing of the pains we feel, and are at present pressed with, being the getting out of misery, and consequently the first thing to be done in order to happiness, absent good, though thought on, confessed, and appearing to be good, not making any part of this unhappiness in its absence, is jostled out, to make way for the removal of those *uneasinesses* we feel, till due, and repeated contemplation has brought it nearer to our mind, given some relish of it, and raised in us some desire; which then beginning to make a part of our present *uneasiness*, stands upon fair terms with the rest, to be satisfied, and so according to its greatness, and pressure comes in its turn to determine the *will*.

Due consideration raises desire

§46. And thus, by a due consideration, and examining any good proposed, it is in our power, to raise our desires, in a due

proportion to the value of that good, whereby in its turn, and place, it may come to work upon the *will*, and be pursued. For good, though appearing, and allowed never so great, yet till it has raised desires in our minds, and thereby made us *uneasy* in its want, it reaches not our *wills*; we are not within the sphere of its activity; our *wills* being under the determination only of those *uneasinesses*, which are present to us, which (whilst we have any) are always soliciting, and ready at hand to give the *will* its next determination. The balancing, when there is any in the mind, being only which desire shall be next satisfied, which *uneasiness* first removed. Whereby it comes to pass, that as long as any *uneasiness*, any desire remains in our mind, there is no room for *good*, barely as such, to come at the *will*, or at all to determine it. Because, as has been said, the first step in our endeavours after happiness being to get wholly out of the confines of misery, and to feel no part of it, the *will* can be at leisure for nothing else, till every *uneasiness* we feel be perfectly removed: which in the multitude of wants and desires, we are beset with in this imperfect state, we are not like to be ever freed from in this world.

The power to suspend the prosecution of any desire, makes way for consideration

§47. There being in us a great many *uneasinesses* always soliciting, and ready to determine the *will*, it is natural, as I have said, that the greatest and most pressing should determine the *will* to the next action; and so it does for the most part, but not always. For the mind having in most cases, as is evident in experience, a power to *suspend* the execution and satisfaction of any of its desires, and so all, one after another, is at liberty to consider the objects of them; examine them on all sides, and weigh them with others. In this lies the liberty man has; and from the not using of it right comes all that variety of mistakes, errors, and faults which we run into, in the conduct of our lives, and our endeavours after happiness; whilst we precipitate the determination of our *wills*, and engage too soon before due *examination*. To prevent this, we have a power to *suspend* the prosecution of this or that desire, as everyone daily may experiment in himself. This seems to me the source of all liberty; in this seems to consist that which is (as I think improperly) called *free will*. For during this *suspension* of any desire, before the *will* be determined to action, and the action (which follows that determination) done, we have opportunity to examine, view, and judge, of the good or evil of what we are going to do; and when, upon due *examination*, we have judged, we have done our duty, all that we can, or ought to do, in pursuit of our happiness; and 'tis not a fault, but a perfection of our

nature to desire, will, and act according to the last result of a fair *examination.*

To be determined by our own judgement, is no restraint to liberty

§48. This is so far from being a restraint or diminution of *freedom*, that it is the very improvement and benefit of it; 'tis not an abridgement, 'tis the end and use of our *liberty*; and the further we are removed from such a determination, the nearer we are to misery and slavery. A perfect indifferency in the mind, not determinable by its last judgement of the good or evil, that is thought to attend its choice, would be so far from being an advantage and excellency of any intellectual nature, that it would be as great an imperfection, as the want of indifferency to act, or not to act, till determined by the *will*, would be an imperfection on the other side. A man is at liberty to lift up his hand to his head, or let it rest quiet: he is perfectly indifferent in either; and it would be an imperfection in him, if he wanted that power, if he were deprived of that indifferency. But it would be as great an imperfection, if he had the same indifferency, whether he would prefer the lifting up his hand, or its remaining in rest, when it would save his head or eyes from a blow he sees coming: *'tis* as much *a perfection, that desire, or the power of preferring, should be determined by good*, as that the power of acting should be determined by the *will*, and the certainer such determination is, the greater is the perfection. Nay, were we determined by anything but the last result of our own minds, judging of the good or evil of any action, we were not free. The very end of our freedom being, that we might attain the good we choose. And therefore every man is put under a necessity by his constitution, as an intelligent being, to be determined in *willing* by his own thought and judgement, what is best for him to do: else he would be under the determination of some other than himself, which is want of liberty. And to deny, that a man's *will*, in every determination, follows his own judgement, is to say, that a man *wills* and acts for an end that he would not have at the time that he *wills* and acts for it. For if he prefers it in his present thoughts before any other, 'tis plain he then thinks better of it, and would have it before any other, unless he can have, and not have it; *will* and not *will* it at the same time; a contradiction too manifest to be admitted!

The freest agents are so determined

§49. If we look upon those *superior beings* above us, who enjoy perfect happiness, we shall have reason to judge, that they are more steadily *determined in their choice of good* than we; and yet we have no reason to think they are less happy, or less free, than we are. And if it were fit for such poor finite creatures as we are, to pronounce what infinite wisdom and goodness could do, I think, we might say, That God

himself cannot choose what is not good; the freedom of the Almighty hinders not his being determined by what is best.

A constant determination to a pursuit of happiness no abridgement of liberty

§50. But to give a right view of this mistaken part of liberty, let me ask, would anyone be a changeling,[23] because he is less determined, by wise considerations, than a wise man? Is it worth the name of *freedom* to be at liberty to play the fool, and draw shame and misery upon a man's self? If to break loose from the conduct of reason, and to want that restraint of examination and judgement, which keeps us from choosing or doing the worse, be *liberty*, true liberty, mad men and fools are the only free men: But yet, I think, nobody would choose to be mad for the sake of such *liberty*, but he that is mad already. The constant desire of happiness, and the constraint it puts upon us to act for it, nobody, I think, accounts an abridgement of *liberty*, or at least an abridgement of *liberty* to be complained of. God Almighty himself is under the necessity of being happy; and the more any intelligent being is so, the nearer is its approach to infinite perfection and happiness. That in this state of ignorance we short-sighted creatures might not mistake true felicity, we are endowed with a power to suspend any particular desire, and keep it from determining the *will*, and engaging us in action. This is *standing still*, where we are not sufficiently assured of the way: examination, is *consulting a guide*. The determination of the *will*, upon inquiry, is *following the direction of that guide*: and he that has a power to act, or not to act according as such determination directs, is a *free agent*; such determination abridges not that power wherein liberty consists. He that has his chains knocked off, and the prison-doors set open to him, is perfectly at *liberty*, because he may either go or stay, as he best likes; though his preference be determined to stay, by the darkness of the night, or illness of the weather, or want of other lodging. He ceases not to be free; though the desire of some convenience to be had there, absolutely determines his preference, and makes him stay in his prison.

The necessity of pursuing true happiness, the foundation of liberty

§51. As therefore the highest perfection of intellectual nature, lies in a careful and constant pursuit of true and solid happiness; so the care of ourselves, that we mistake not imaginary for real happiness, is the necessary foundation of our *liberty*. The stronger ties we have to an unalterable pursuit of happiness in general, which is our greatest good, and which, as such, our desires always follow, the more are we free from any necessary determination of our *will* to any particular action, and from a necessary compliance with our desire, set

upon any particular, and then appearing preferable good, till we have duly examined, whether it has a tendency to, or be inconsistent with our real happiness: and therefore till we are as much informed upon this inquiry, as the weight of the matter, and the nature of the case demands, we are by the necessity of preferring and pursuing true happiness as our greatest good, obliged to suspend the satisfaction of our desire in particular cases.

The reason of it

§52. This is the hinge on which turns the *liberty* of intellectual beings in their constant endeavours after, and a steady prosecution of true felicity, that they can *suspend* this prosecution in particular cases, till they have looked before them, and informed themselves, whether that particular thing, which is then proposed or desired, lie in the way to their main end, and make a real part of that which is their greatest good; for the inclination, and tendency of their nature to happiness, is an obligation and motive to them, to take care not to mistake, or miss it; and so necessarily puts them upon caution, deliberation, and wariness, in the direction of their particular actions, which are the means to obtain it. Whatever necessity determines to the pursuit of real bliss, the same necessity, with the same force establishes *suspense*, *deliberation*, and scrutiny of each successive desire, whether the satisfaction of it does not interfere with our true happiness, and mislead us from it. This, as seems to me, is the great privilege of finite intellectual beings; and I desire it may be well considered, whether the great inlet, and exercise of all the *liberty* men have, are capable of, or can be useful to them, and that whereon depends the turn of their actions, does not lie in this, that they can *suspend* their desires, and stop them from determining their *wills* to any action, till they have duly and fairly *examined* the good and evil of it, as far forth as the weight of the thing requires. This we are able to do; and when we have done it, we have done our duty, and all that is in our power; and indeed all that needs. For, since the *will* supposes knowledge to guide its choice, all that we can do, is to hold our *wills* undetermined, till we have *examined* the good and evil of what we desire. What follows after that, follows in a chain of consequences linked one to another, all depending on the last determination of the judgement, which whether it shall be upon an hasty and precipitate view, or upon a due and mature *examination*, is in our power; experience showing us, that in most cases we are able to suspend the present satisfaction of any desire.

Government of our passions, the right improvement of liberty

§53. But if any extreme disturbance (as sometimes it happens) possesses our whole mind, as when the pain of the rack,[24] an impetuous *uneasiness*, as of love, anger, or any

other violent passion, running away with us, allows us not the liberty of thought, and we are not masters enough of our own minds to consider throughly, and examine fairly; God, who knows our frailty, pities our weakness, and requires of us no more than we are able to do, and sees what was, and what was not in our power; will judge as a kind and merciful father. But the forbearance of a too hasty compliance with our desires, the moderation and restraint of our passions, so that our understandings may be *free* to examine, and reason unbiased give its judgement, being that whereon a right direction of our conduct to true happiness depends: 'tis in this we should employ our chief care and endeavours. In this we should take pains to suit the relish[25] of our minds to the true intrinsic good or ill that is in things, and not permit an allowed or supposed possible great and weighty good to slip out of our thoughts, without leaving any relish, any desire of itself there, till, by a due consideration of its true worth, we have formed appetites in our minds suitable to it, and made ourselves uneasy in the want of it, or in the fear of losing it. And how much this is in everyone's power, everyone, by making resolutions to himself, such as he may keep, is easy for everyone to try. Nor let anyone say, he cannot govern his passions, nor hinder them from breaking out, and carrying him into action; for what he can do before a prince, or a great man, he can do alone, or in the presence of God, if he will.

How men come to pursue different courses

§54. From what has been said, it is easy to give account, how it comes to pass, that though all men desire happiness, yet their *wills carry them so contrarily*, and consequently some of them to what is evil. And to this I say, that the various and contrary choices that men make in the world, do not argue, that they do not all pursue good; but that the same thing is not good to every man alike. This variety of pursuits shows, that everyone does not place his happiness in the same thing, or choose the same way to it. Were all the concerns of man terminated in this life, why one followed study and knowledge, and another hawking and hunting; why one chose luxury and debauchery, and another sobriety and riches, would not be, because everyone of these did not aim at his own happiness; but because their *happiness* was placed in different things. And therefore 'twas a right answer of the physician to his patient that had sore eyes: if you have more pleasure in the taste of wine, than in the use of your sight, wine is good for you; but if the pleasure of seeing be greater to you than that of drinking, wine is naught.

§55. The mind has a different relish, as well as the palate; and you will

as fruitlessly endeavour to delight all men with riches or glory, (which yet some men place their happiness in,) as you would to satisfy all men's hunger with cheese or lobsters; which though very agreeable and delicious fair to some, are to others extremely nauseous and offensive: and many people would with reason prefer the griping of an hungry belly to those dishes, which are a feast to others. Hence it was, I think, that the philosophers of old did in vain inquire, whether *summum bonum*[26] consisted in riches, or bodily delights, or virtue or contemplation? And they might have as reasonably disputed, whether the best relish were to be found in apples, plums, or nuts; and have divided themselves into sects upon it. For as pleasant tastes depend not on the things themselves, but their agreeableness to this or that particular palate, wherein there is great variety; so the greatest happiness consists in the having those things which produce the greatest pleasure; and in the absence of those which cause any disturbance, any pain. Now, these to different men, are very different things. If therefore men in this life only have hope; if in this life they can only enjoy, 'tis not strange, nor unreasonable, that they should seek their happiness by avoiding all things that disease them here, and by pursuing all that delight them; wherein it will be no wonder to find variety and difference. For if there be no prospect beyond the grave, the inference is certainly right, 'Let us eat and drink,' let us enjoy what we delight in, 'for tomorrow we shall die.'[27] This, I think, may serve to show us the reason, why, though all men's desires tend to happiness, yet they are not moved by the same object. Men may choose different things, and yet all choose right, supposing them only like a company of poor insects, whereof some are bees, delighted with flowers and their sweetness; others beetles, delighted with other kind of viands;[28] which having enjoyed for a season, they should cease to be, and exist no more for ever.

How men come to choose ill

§56. These things duly weighed, will give us, as I think, a clear view into the state of human liberty. Liberty 'tis plain consists in a power to do, or not to do; to do, or forbear doing as we *will*. This cannot be denied. But this seeming to comprehend only the actions of a man consecutive to volition, it is further inquired, whether he be at liberty to *will*, or no? and to this it has been answered, that in most cases a man is not at liberty to forbear the act of volition; he must exert an act of his *will*, whereby the action proposed, is made to exist, or not to exist. But yet there is a case wherein a man is at liberty in respect of *willing*, and that is the choosing of a remote good as an end to be pursued. Here a man

may suspend the act of his choice from being determined for or against the thing proposed, till he has examined, whether it be really of a nature in itself and consequences to make him happy or no. For when he has once chosen it, and thereby it is become a part of his happiness, it raises desire, and that proportionably gives him uneasiness, which determines his *will*, and sets him at work in pursuit of his choice on all occasions that offer. And here we may see how it comes to pass, that a man may justly incur punishment, though it be certain that in all the particular actions that he *wills*, he does, and necessarily does will that which he then judges to be good. For though his *will* be always determined by that which is judged good by his understanding, yet it excuses him not: because, by a too hasty choice of his own making, he has imposed on himself wrong measures of good and evil; which however false and fallacious, have the same influence on all his future conduct, as if they were true and right. He has vitiated his own palate, and must be answerable to himself for the sickness and death that follows from it. The eternal law and nature of things must not be altered to comply with his ill-ordered choice. If the neglect or abuse of the liberty he had, to examine what would really and truly make for his happiness, misleads him, the miscarriages that follow on it, must be imputed to his own election. He had a power to suspend his determination: It was given him, that he might examine, and take care of his own happiness, and look that he were not deceived. And he could never judge, that it was better to be deceived, than not in a matter of so great and near concernment.

What has been said, may also discover to us the reason why, men in this world prefer different things, and pursue happiness by contrary courses. But yet since men are always constant, and in earnest, in matter of happiness and misery, the question still remains, *how men come often to prefer the worse to the better*; and to choose that, which by their own confession, has made them miserable.

§57. To account for the various and contrary ways men take, though all aim at being happy, we must consider, whence the various *uneasinesses*, that determine the will in the preference of each voluntary action, have their rise.

From bodily pains 1. Some of them come from causes not in our power, such as are often the pains of the body from want, disease, or outward injuries, as the rack, *etc.* which when present, and violent, operate for the most part forcibly on the *will*, and turn the courses of men's lives from

virtue, piety, and religion, and what, before they judged, to lead to happiness; everyone not endeavouring, or through disuse, not being able by the contemplation of remote and future good, to raise in himself desires of them strong enough to counter-balance the uneasiness he feels in those bodily torments; and to keep his *will* steady in the choice of those actions which lead to future happiness. A neighbour country has been of late a tragical theatre, from which we might fetch instances, if there needed any, and the world did not in all countries and ages furnish examples enough to confirm that received observation, 'Necessitas cogit ad turpia',[29] and therefore there is great reason for us to pray, 'Lead us not into temptation'.[30]

From wrong desires arising from wrong judgement

2. Other *uneasinesses* arise from our desires of absent good; which desires always bear proportion to, and depend on the judgement we make, and the relish we have of any absent good; in both which we are apt to be variously misled, and that by our own fault.

Our judgement of present good or evil always right

§58. In the first place, I shall consider the wrong judgements men make of future good and evil, whereby their desires are misled. For as to present happiness and misery, when that alone comes in consideration, and the consequences are quite removed, *a man never chooses amiss*; he knows what best pleases him, and that he actually prefers. Things in their present enjoyment, are what they seem; the apparent and real good are, in this case, always the same. For the pain or pleasure being just so great, and no greater, than it is felt, the present good or evil is really so much as it appears. And therefore were every action of ours concluded within itself, and drew no consequences after it, we should undoubtedly never err in our choice of good; we should always infallibly prefer the best. Were the pains of honest industry, and of starving with hunger and cold set together before us, nobody would be in doubt which to choose: were the satisfaction of a lust, and the joys of Heaven offered at once to anyone's present possession, he would not balance, or err in the determination of his choice.

§59. But since our voluntary actions carry not all the happiness and misery, that depend on them, along with them in their present performance, but are the precedent causes of good and evil, which they draw after them, and bring upon us, when they themselves are passed, and cease to be; our desires look beyond our present enjoyments, and carry the mind out to absent *good*, according to the necessity which we think there is of it, to the

making or increase of our happiness. 'Tis our opinion of such a necessity that gives it its attraction: without that, we are not moved by absent *good*. For in this narrow scantling[31] of capacity, which we are accustomed to, and sensible of here, wherein we enjoy but one pleasure at once, which, when all uneasiness is away, is, whilst it lasts, sufficient to make us think ourselves happy, 'tis not all remote, and even apparent good, that affects us. Because the indolency and enjoyment we have, sufficing for our present happiness, we desire not to venture the change: since we judge that we are happy already, being content, and that is enough. For who is content, is happy. But as soon as any new uneasiness comes in, this happiness is disturbed, and we are set afresh on work in the pursuit of happiness.

From a wrong judgement of what makes a necessary part of their happiness

§60. Their aptness therefore to conclude, that they can be happy without it, is one great occasion that men often are not raised to the desire of the greatest absent *good*. For whilst such thoughts possess them, the joys of a future state move them not; they have little concern or uneasiness about them; and the *will*, free from the determination of such desires, is left to the pursuit of nearer satisfactions, and to the removal of those uneasinesses which it then feels in its want of, and longings after them. Change but a man's view of these things; let him see, that virtue and religion are necessary to his happiness; let him look into the future state of bliss or misery, and see there God, the righteous judge, ready to 'render to every man according to his deeds; to them who by patient continuance in well-doing, seek for glory, and honour, and immortality, eternal life; but unto every soul that doth evil, indignation and wrath, tribulation and anguish':[32] To him, I say, who hath a prospect of the different state of perfect happiness or misery, that attends all men after this life, depending on their behaviour here, the measures of good and evil, that govern his choice, are mightily changed. For since nothing of pleasure and pain in this life, can bear any proportion to endless happiness, or exquisite misery of an immortal soul hereafter, actions in his power will have their preference, not according to the transient pleasure or pain that accompanies, or follows them here; but as they serve to secure that perfect durable happiness hereafter.

A more particular account of wrong judgement

§61. But to account more particularly for the misery that men often bring on themselves, notwithstand that they do all in earnest pursue happiness, we must consider, how *things* come to be *represented* to our desires, *under deceitful appearances*: and that is *by the judgement* pronouncing wrongly concerning them. To see how far this

reaches, and what are the causes of wrong judgement, we must remember, that things are judged good or bad in a double sense.

First, that which is properly good or bad, is nothing but barely pleasure or pain.

Secondly, but because not only present pleasure and pain, but that also which is apt by its efficacy or consequences, to bring it upon us at a distance, is a proper object of our desires, and apt to move a creature that has foresight; therefore *things* also *that draw after them pleasure and pain, are considered as good and evil.*

§62. The *wrong judgement* that *misleads us*, and makes the will often fasten on the worst side, lies in misreporting upon the various comparisons of these. The *wrong judgement* I am here speaking of, is not what one man may think of the determination of another; but what every man himself must confess to be wrong. For since I lay it for a certain ground, that every intelligent being really seeks happiness, which consists in the enjoyment of pleasure, without any considerable mixture of uneasiness; 'tis impossible anyone should willingly put into his own draught any bitter ingredient, or leave out anything in his power, that would tend to his satisfaction, and the completing of his happiness, but only by *wrong judgement.* I shall not here speak of that mistake which is the consequence of invincible error, which scarce deserves the name of *wrong judgement*; but of that *wrong judgement*, which every man himself must confess to be so.

In comparing present and future

§63. I. Therefore, as to present pleasure and pain, the mind, as has been said, never mistakes that which is really good or evil; that which is the greater pleasure, or the greater pain, is really just as it appears. But though present pleasure and pain show their difference and degrees so plainly, as not to leave room for mistake; yet *when we compare present pleasure or pain with future*, (which is usually the case in the most important determinations of the will) *we often make wrong judgements* of them, taking our measures of them in different positions of distance. Objects, near our view, are apt to be thought greater, than those of a larger size, that are more remote: and so it is with pleasures and pains, the present is apt to carry it, and those at a distance have the disadvantage in the comparison. Thus most men, like spendthrift heirs, are apt to judge a little in hand better than a great deal to come; and so for small matters in possession, part with great ones in reversion. But that this is a *wrong judgement* everyone must allow, let his pleasure consist in whatever it will: since that which is future, will certainly come to be present; and then, having the same advantage of nearness, will show itself in its full dimensions, and discover his wilful

mistake, who judged of it by unequal measures. Were the pleasure of drinking accompanied, the very moment a man takes off[33] his glass, with that sick stomach and aching head, which, in some men, are sure to follow not many hours after, I think nobody, whatever pleasure he had in his cups, would, on these conditions, ever let wine touch his lips; which yet he daily swallows, and the evil side comes to be chosen only by the fallacy of a little difference in time. But if pleasure or pain can be so lessened only by a few hours' removal, how much more will it be so, by a further distance, to a man, that will not by a right judgement do what time will, *i.e.* bring it home upon himself, and consider it as present, and there take its true dimensions? This is the way we usually impose on ourselves, in respect of bare pleasure and pain, or the true degrees of happiness or misery: the future loses its just proportion, and what is present, obtains the preference as the greater. I mention not here the *wrong judgement*, whereby the absent are not only lessened, but reduced to perfect nothing; when men enjoy what they can in present, and make sure of that, concluding amiss, that no evil will thence follow. For that lies not in comparing the greatness of future good and evil, which is that we are here speaking of; but in another sort of *wrong judgement*, which is concerning good or evil, as it is considered to be the cause and procurement of pleasure or pain, that will follow from it.

Causes of this

§64. *The cause of our judging amiss*, when we compare our present pleasure or pain with future, seems to me to be *the weak and narrow constitution of our minds*. We cannot well enjoy two pleasures at once, much less any pleasure almost, whilst pain possesses us. The present pleasure, if it be not very languid, and almost none at all, fills our narrow souls, and so takes up the whole mind, that it scarce leaves any thought of things absent: or if among our pleasures, there are some which are not strong enough to exclude the consideration of things at a distance; yet we have so great an abhorrence of pain, that a little of it extinguishes all our pleasures: A little bitter mingled in our cup, leaves no relish of the sweet. Hence it comes, that, at any rate, we desire to be rid of the present evil, which we are apt to think nothing absent can equal; because under the present pain we find not ourselves capable of any the least degree of happiness. Men's daily complaints, are a loud proof of this: the pain that anyone actually feels, is still of all other the worst; and 'tis with anguish they cry out, 'any rather than this; nothing can be so intolerable as what I now suffer.' And therefore our whole endeavours and thoughts are intent to get rid of the present evil, before all things, as the first necessary condition to our happiness, let what

will follow. Nothing, as we passionately think, can exceed, or almost equal, the uneasiness that sits so heavy upon us. And because the abstinence from a present pleasure, that offers itself, is a pain, nay, oftentimes a very great one, the desire being inflamed by a near and tempting object; 'tis no wonder that that operates after the same manner pain does, and lessens in our thoughts what is future; and so forces us, as it were, blindfold into its embraces.

§65. Add to this, that absent good, or which is the same thing, future pleasure, especially if of a sort which we are unacquainted with, seldom is able to counter-balance any uneasiness, either of pain or desire, which is present. For its greatness being no more than what shall be really tasted when enjoyed, men are apt enough to lessen that, to make it give place to any present desire; and conclude with themselves, that when it comes to trial, it may possibly not answer the report, or opinion, that generally passes of it, they having often found, that not only what others have magnified, but even what they themselves have enjoyed with great pleasure and delight at one time, has proved insipid or nauseous at another; and therefore they see nothing in it, for which they should forgo a present enjoyment. But that this is a *false* way of *judging*, when applied to the happiness of another life, they must confess, unless they will say, God cannot make those happy he designs to be so. For that being intended for a state of happiness, it must certainly be agreeable to everyone's wish and desire: could we suppose their relishes as different there, as they are here, yet the manna[34] in Heaven will suit everyone's palate. Thus much of the *wrong judgement* we make of present and future pleasure and pain, when they are compared together, and so the absent considered as future.

In considering consequences of actions

§66. II. *As to things good or bad in their consequences*, and by the aptness is in them to procure us good or evil in the future, *we judge amiss several ways.*

1. When we *judge* that so much evil does not really depend on them, as in truth there does.

2. When we *judge*, that though the consequence be of that moment, yet it is not of that certainty, but that it may otherwise fall out; or else by some means be avoided, as by industry, address, change, repentance, *etc.* That these are *wrong* ways of *judging*, were easy to show, in every particular, if I would examine them at large singly: but I shall only mention this in general, *viz.* that it is a very wrong, and irrational way of proceeding, to venture a greater good, for a less, upon uncertain guesses, and before a due examin-

ation be made, proportionable to the weightiness of the matter, and the concernment it is to us not to mistake. This, I think, everyone must confess, especially if he considers the usual *causes* of this *wrong judgement*, whereof these following are some.

Causes of this

§67. I. *Ignorance*: He that judges without informing himself to the utmost that he is capable, cannot acquit himself of *judging amiss*.

II. *Inadvertency*: When a man overlooks even that which he does know. This is an affected and present ignorance, which misleads our judgements as much as the other. Judging is, as it were, balancing an account, and determining on which side the odds lies. If therefore either side be huddled up in haste, and several of the sums, that should have gone into the reckoning, be overlooked, and left out, this precipitancy causes as *wrong* a *judgement*, as if it were a perfect ignorance. That which most commonly causes this, is the prevalency of some present pleasure or pain, heightened by our feeble passionate nature, most strongly wrought on by what is present. To check this precipitancy, our understanding and reason was given us, if we will make a right use of it, to search, and see, and then judge thereupon. Without liberty, the understanding would be to no purpose: and without understanding, liberty (if it could be) would signify nothing. If a man sees what would do him good or harm, what would make him happy or miserable, without being able to move himself one step towards or from it, what is he the better for seeing? And he that is at liberty to ramble in perfect darkness, what is his liberty better, than if he were driven up and down as a bubble by the force of the wind? The being acted by a blind impulse from without, or from within, is little odds. The first therefore, and great use of liberty, is to hinder blind precipitancy; the principal exercise of freedom, is to stand still, open the eyes, look about, and take a view of the consequence of what we are going to do, as much as the weight of the matter requires. How much sloth and negligence, heat and passion, the prevalency of fashion, or acquired indispositions, do severally contribute on occasion, to these *wrong judgements*, I shall not here further inquire. I shall only add one other false judgement, which I think necessary to mention, because perhaps it is little taken notice of, though of great influence.

Wrong judgement of what is necessary to our happiness

§68. All Men desire happiness, that is past doubt: but, as has been already observed, when they are rid of pain, they are apt to take up with any pleasure at hand, or that custom has endeared to them, to rest satisfied in that; and so being happy, till some new desire, by making them uneasy, disturbs that happiness, and

shows them, that they are not so, they look no further, nor is the will determined to any action in pursuit of any other known or apparent good. For since we find, that we cannot enjoy all sorts of good, but one excludes another; we do not fix our desires on every apparent greater good, unless it be judged to be necessary to our happiness: If we think we can be happy without it, it moves us not. This is another occasion to men of *judging wrong*, when they take not that to be necessary to their happiness, which really is so. This mistake misleads us both in the choice of the good we aim at, and very often in the means to it, when it is a remote good. But, which way ever it be, either by placing it where really it is not, or by neglecting the means, as not necessary to it, when a man misses his great end happiness, he will acknowledge he judged not right. That which contributes to this mistake, is the real or supposed unpleasantness of the actions, which are the way to this end; it seeming so preposterous a thing to men, to make themselves unhappy in order to happiness, that they do not easily bring themselves to it.

We can change the agreeableness or disagreeableness in things

§69. The last inquiry therefore concerning this matter, is, whether it be in a man's power to change the pleasantness, and unpleasantness, that accompanies any sort of action? and to that, it is plain in many cases he can. Men may and should correct their palates, and give a relish to what either has, or they suppose has none. The relish of the mind, is as various as that of the body, and like that too may be altered; and 'tis a mistake to think, that men cannot change the displeasingness, or indifferency, that is in actions, into pleasure and desire, if they will do but what is in their power. A due consideration will do it in some cases; and practice, application, and custom in most. Bread or tobacco may be neglected, where they are shown to be useful to health, because of an indifferency or disrelish to them; reason and consideration at first recommends, and begins their trial, and use finds, or custom makes them pleasant. That this is so in virtue too, is very certain. Actions are pleasing or displeasing, either in themselves, or considered as a means to a greater and more desirable end. The eating of a well-seasoned dish, suited to a man's palate, may move the mind by the delight itself, that accompanies the eating, without reference to any other end: to which the consideration of the pleasure there is in health and strength, (to which that meat is subservient) may add a new gusto, able to make us swallow an ill-relished potion. In the latter of these, any action is rendered more or less pleasing, only by the contemplation of the end, and the being more or less persuaded

of its tendency to it, or necessary connexion with it: but the pleasure of the action itself is best acquired, or increased, by use and practice. Trials often reconcile us to that, which at a distance we looked on with aversion; and by repetition wears us into a liking, of what possibly, in the first essay, displeased us. Habits have powerful charms, and put so strong attractions of easiness and pleasure into what we accustom ourselves to, that we cannot forbear to do, or at least be easy in the omission of actions; which habitual practice has suited, and thereby recommends to us. Though this be very visible, and everyone's experience shows him he can do; yet it is a part, in the conduct of men towards their happiness, neglected to a degree, that it will be possibly entertained as a paradox, if it be said, that men can make things or actions more or less pleasing to themselves; and thereby remedy that, to which one may justly impute a great deal of their wandering. Fashion and the common opinion having settled wrong notions, and education and custom ill habits, the just values of things are misplaced, and the palates of men corrupted. Pains should be taken to rectify these; and contrary habits change our pleasures, and give a relish to that, which is necessary, or conducive to our happiness. This everyone must confess he can do, and when happiness is lost, and misery overtakes him, he will confess, he did amiss in neglecting it, and condemn himself for it: And I ask everyone, whether he has not often done so?

Preference of vice to virtue a manifest wrong judgement

§70. I shall not now enlarge any further on the *wrong judgements*, and neglect of what is in their power, whereby men mislead themselves. This would make a volume, and is not my business. But whatever false notions, or shameful neglect of what is in their power, may put men out of their way to happiness, and distract them, as we see, into so different courses of life, this yet is certain, that morality, established upon its true foundations, cannot but determine the choice in anyone, that will but consider: and he that will not be so far a rational creature, as to reflect seriously upon infinite happiness and misery, must needs condemn himself, as not making that use of his understanding he should. The rewards and punishments of another life, which the Almighty has established, as the enforcements of his law, are of weight enough to determine the choice, against whatever pleasure or pain this life can show, when the eternal state is considered but in its bare possibility, which nobody can make any doubt of. He that will allow exquisite and endless happiness to be but the possible consequence of a good life here, and the contrary state, the possible reward of a bad one, must own himself to judge very

much amiss, if he does not conclude, that a virtuous life, with the certain expectation of everlasting bliss, which may come, is to be preferred to a vicious one, with the fear of that dreadful state of misery, which 'tis very possible may overtake the guilty; or at best the terrible uncertain hope of annihilation. This is evidently so, though the virtuous life here had nothing but pain, and the vicious continual pleasure: which yet is, for the most part, quite otherwise, and wicked men have not much the odds to brag of, even in their present possession; nay, all things rightly considered, have, I think, even the worse part here. But when infinite happiness is put in one scale, against infinite misery in the other; if the worst that comes to the pious man, if he mistakes, be the best that the wicked can attain to, if he be in the right, who can without madness run the venture? Who in his wits would choose to come within a possibility of infinite misery, which if he miss, there is yet nothing to be got by that hazard? Whereas on the other side, the sober man ventures nothing against infinite happiness to be got, if his expectation comes to pass. If the good man be in the right, he is eternally happy; if he mistakes, he is not miserable, he feels nothing. On the other side, if the wicked be in the right, he is not happy; if he mistakes, he is infinitely miserable. Must it not be a most manifest wrong judgement, that does not presently see, to which side, in this case, the preference is to be given? I have forborne to mention anything of the certainty, or probability of a future state, designing here to show the *wrong judgement*, that anyone must allow he makes upon his own principles, laid how he pleases, who prefers the short pleasures of a vicious life upon any consideration, whilst he knows, and cannot but be certain, that a future life is at least possible.

Recapitulation

§71. To conclude this inquiry into human liberty, which as it stood before, I myself from the beginning fearing, and a very judicious friend[35] of mine, since the publication, suspecting to have some mistake in it, though he could not particularly show it me, I was put upon a stricter review of this chapter. Wherein lighting upon a very easy, and scarce observable slip I had made, in putting one seemingly indifferent word for another,[36] that discovery opened to me this present view, which here, in this *second* edition, I submit to the learned world, and which in short is this: *liberty* is a power to act or not to act, according as the mind directs. A power to direct the operative faculties to motion or rest in particular instances, is that which we call the *will*. That which in the train of our voluntary actions determines the *will* to any change of operation, is some present uneasiness,

which is, or at least is always accompanied with that of *desire*. Desire is always moved by evil, to fly it; because a total freedom from pain, always makes a necessary part of our happiness: but every *good*, nay, every *greater good* does not constantly move *desire*, because it may not make, or may not be taken to make any necessary part of our happiness. For all that we desire, is only to be happy. But though this general *desire* of happiness operates constantly and invariably, yet the satisfaction of any particular *desire*, can be suspended from determining the *will* to any subservient action, till we have maturely examined, whether the particular apparent good, which we then desire, makes a part of our real happiness, or be consistent or inconsistent with it. The result of our judgement upon that examination, is what ultimately determines the man, who could not be *free*, if his *will* were determined by anything, but his own *desire* guided by his own *judgement*.[37] I know that liberty by some, is placed in an *indifferency* of the man, antecedent to the determination of his *will*. I wish they, who lay so much stress on such an *antecedent indifferency*, as they call it, had told us plainly, whether this supposed *indifferency* be antecedent to the thought and judgement of the understanding, as well as to the decree of the *will*. For it is pretty hard to state it between them; *i.e.* immediately after the judgement of the understanding, and before the determination of the *will*, because the determination of the *will* immediately follows the judgement of the understanding; and to place liberty in an *indifferency*, antecedent to the thought and judgement of the understanding, seems to me to place liberty in a state of darkness, wherein we can neither see nor say anything of it; at least it places it in a subject incapable of it, no agent being allowed capable of liberty, but in consequence of thought and judgement. I am not nice about phrases, and therefore consent to say with those that love to speak so, that liberty is placed in *indifferency*; but 'tis in an *indifferency* that remains after the judgement of the understanding; yea, even after the determination of the *will*: and that is an indifferency not of the man; (for after he has once judged which is best, *viz.* to do, or forbear, he is no longer indifferent) but an *indifferency* of the operative powers of the man, which remaining equally able to operate, or to forbear operating after, as before the decree of the *will*, are in a state, which, if one pleases, may be called *indifferency*; and as far as this *indifferency* reaches, a man is free, and no further. *V.g.* I have the ability to move my hand, or to let it rest, that operative power is indifferent to move, or not to move my hand: I am then in that respect perfectly free. My *will* determines that operative power to rest, I am yet free, because the *indifferency* of that

my operative power to act, or not to act, still remains; the power of moving my hand, is not at all impaired by the determination of my *will*, which at present orders rest; the *indifferency* of that power to act, or not to act, is just as it was before, as will appear, if the *will* puts it to the trial, by ordering the contrary. But if during the rest of my hand, it be seized by a sudden palsy, the *indifferency* of that operative power is gone, and with it my liberty, I have no longer freedom in that respect, but am under a necessity of letting my hand rest. On the other side, if my hand be put into motion by a convulsion, the *indifferency* of that operative faculty is taken away by that motion, and my liberty in that case is lost: for I am under a necessity of having my hand move. I have added this, to show in what sort of *indifferency* liberty seems to me to consist, and not in any other, real or imaginary.

§72. True notions concerning the nature and extent of *liberty* are of so great importance, that I hope I shall be pardoned this digression, which my attempt to explain it, has led me into. The ideas of *will*, *volition*, *liberty*, and *necessity*, in this Chapter of Power, came naturally in my way. In the former edition[38] of this treatise, I gave an account of my thoughts concerning them, according to the light I then had: and now, as a lover of truth, and not a worshipper of my own doctrines, I own some change of my opinion, which I think I have discovered ground for. In what I first writ, I with an unbiased indifferency followed truth, whither I thought she led me. But neither being so vain as to fancy infallibility, nor so disingenuous as to dissemble my mistakes, for fear of blemishing my reputation, I have with the same sincere design for truth only, not been ashamed to publish what a severer inquiry has suggested. It is not impossible, but that some may think my former notions right, and some (as I have already found) these later; and some neither. I shall not at all wonder at this variety in men's opinions: impartial deductions of reason in controverted points being so very rare, and exact ones in abstract notions not so very easy, especially if of any length. And therefore, I should think myself not a little beholding to anyone, who would upon these, or any other grounds, fairly clear this subject of *liberty* from any difficulties that may yet remain.

Before I close this chapter, it may perhaps be to our purpose, and help to give us clearer conceptions about *power*, if we make our thoughts take a little more exact survey of *action*. I have said above, that we have ideas but of two sorts of *action*, viz. *motion* and *thinking*. These, in truth, though called and counted *actions*, yet, if nearly considered, will not be found to be always

perfectly so. For, if I mistake not, there are instances of both kinds, which, upon due consideration, will be found rather *passions* than *actions*, and consequently so far the effects barely of passive powers in those subjects, which yet on their account are thought *agents*. For in these instances, the substance that hath motion, or thought, receives the impression, whereby it is put into that *action* purely from without, and so acts merely by the capacity it has to receive such an impression from some external agent; and such a *power* is not properly an *active power*, but a mere passive capacity in the subject. Sometimes the substance, or agent, puts itself into *action* by its own power, and this is properly *active power*. Whatsoever modification a substance has, whereby it produces any effect, that is called *action*; *v.g.* a solid substance by motion operates on, or alters the sensible ideas of another substance, and therefore this modification of motion, we call action. But yet this motion in that solid substance is, when rightly considered, but a passion, if it received it only from some external agent. So that the *active power* of motion, is in no substance which cannot begin motion in itself, or in another substance, when at rest. So likewise in *thinking*, a power to receive ideas, or thoughts, from the operation of any external substance, is called a *power* of thinking: but this is but a *passive power*, or capacity. But to be able to bring into view ideas out of sight, at one's own choice, and to compare which of them one thinks fit, this is an *active power*. This reflection may be of some use to preserve us from mistakes about *powers* and *actions*, which grammar, and the common frame of languages, may be apt to lead us into: since what is signified by *verbs* that grammarians call *active*, does not always signify *action*; *v.g.* this proposition, I see the Moon, or a star, or I feel the heat of the Sun, though expressed by a *verb active*, does not signify any *action* in me, whereby I operate on those substances; but the reception of the ideas of light, roundness and heat, wherein I am not active but barely passive, and cannot in that position of my eyes, or body, avoid receiving them. But when I turn my eyes another way, or remove my body out of the Sun-beams, I am properly active; because of my own choice, by a power within myself, I put myself into that motion. Such an *action*, is the product of *active power*.

§73. And thus I have, in a short draught, given a view of our *original* ideas, from whence all the rest are derived, and of which they are made up; which, if I would consider, as a philosopher, and examine on what causes they depend, and of what they are made, I believe they all might be reduced to these very few primary, and original ones, *viz.*

extension,
solidity,
mobility, or the power of being moved;

which by our senses we receive from body:

perceptivity, or the power of perception, or thinking;
motivity, or the power of moving;

which by reflection we receive from our minds. I crave leave to make use of these two new words, to avoid the danger of being mistaken in the use of those which are equivocal. To which if we add

existence,
duration,
number,

which belong both to the one, and the other, we have, perhaps, all the original ideas, on which the rest depend. For by these, I imagine, might be explained the nature of colours, sounds, tastes, smells, and all other ideas we have, if we had but faculties acute enough to perceive the severally modified extensions, and motions of these minute bodies, which produce those several sensations in us. But my present purpose being only to inquire into the knowledge the mind has of things, by those ideas and appearances, which *God* has fitted it to receive from them, and how the mind comes by that knowledge, rather than into their causes, or manner of production, I shall not, contrary to the design of this essay, set myself to inquire philosophically into the peculiar constitution of bodies, and the configuration of parts, whereby they have the power to produce in us the ideas of their sensible qualities: I shall not enter any further into that disquisition; it sufficing to my purpose to observe, that gold or saffron, has a power to produce in us the idea of yellow; and snow or milk, the idea of white; which we can only have by our sight, without examining the texture of the parts of those bodies, or the particular figures, or motion of the particles, which rebound from them, to cause in us that particular sensation: though when we go beyond the bare ideas in our minds, and would inquire into their causes, we cannot conceive anything else to be in any sensible object, whereby it produces different ideas in us, but the different bulk, figure, number, texture, and motion of its insensible parts.

CHAPTER XXII

Of Mixed Modes

Mixed modes what §1. Having treated of *simple modes* in the foregoing chapters, and given several instances of some of the most considerable of them, to show what they are, and how we come by them; we are now in the next place to consider those we call *mixed modes*, such are the complex ideas, we mark by the names *obligation*, *drunkenness*, a *lie*, etc. which consisting of several combinations of simple ideas of different kinds, I have called *mixed modes*, to distinguish them from the more simple modes, which consist only of simple ideas of the same kind. These mixed modes being also such combinations of simple ideas, as are not looked upon to be characteristical marks of any real beings that have a steady existence, but scattered and independent ideas, put together by the mind, are thereby distinguished from the complex ideas of substances.

Made by the mind §2. That the mind, in respect of its simple ideas, is wholly passive, and receives them all from the existence and operations of things, such as sensation or reflection offers them, without being able to make any one idea, experience shows us. But if we attentively consider these ideas I call *mixed modes*, we are now speaking of, we shall find their original quite different. *The mind* often *exercises an active power in making these* several *combinations*: for it being once furnished with simple ideas, it can put them together in several compositions, and so make variety of complex ideas, without examining whether they exist so together in nature. And hence, I think, it is, that these ideas are called *notions*; as if they had their original, and constant existence, more in the thoughts of men, than in the reality of things; and to form such ideas, it sufficed, that the mind puts the parts of them together, and that they were consistent in the understanding, without considering whether they had any real being: though I do not deny, but several of them might be taken from observation, and the existence of several simple ideas so combined, as they are put together in the understanding. For the man who first framed the idea of *hypocrisy*, might have either taken it at first from the observation of one, who made show of good qualities, which he had not; or else have framed that idea in his mind, without having any such pattern to fashion it by. For it is evident, that in the beginning of

languages and societies of men, several of those complex ideas, which were consequent to the constitutions established amongst them, must needs have been in the minds of men, before they existed anywhere else; and that many names that stood for such complex ideas, were in use, and so those ideas framed, before the combinations they stood for, ever existed.

Sometimes got by the explication of their names

§3. Indeed, now that languages are made, and abound with words standing for such combinations, *an usual way of getting these complex ideas, is by the explication of those terms that stand for them.* For consisting of a company of simple ideas combined, they may by words standing for those simple ideas, be represented to the mind of one who understands those words, though that complex combination of simple ideas were never offered to his mind by the real existence of things. Thus a man may come to have the idea of *sacrilege* or *murder*, by enumerating to him the simple ideas which these words stand for, without ever seeing either of them committed.

The name ties the parts of mixed modes into one idea

§4. Every *mixed mode* consisting of many distinct simple ideas, it seems reasonable to inquire, *whence it has its unity*; and how such a precise multitude comes to make but one *idea*, since that combination does not always exist together in nature. To which I answer, it is plain, it has its unity from an act of the mind combining those several simple ideas together, and considering them as one complex one, consisting of those parts; and the mark of this union, or that which is looked on generally to complete it, is one name given to that combination. For 'tis by their names, that men commonly regulate their account of their distinct species of mixed modes, seldom allowing or considering any number of simple ideas, to make one complex one, but such collections as there be names for. Thus, though the killing of an old man be as fit in nature to be united into one complex idea, as the killing a man's father; yet, there being no name standing precisely for the one, as there is the name of *parricide* to mark the other, it is not taken for a particular complex idea, nor a distinct species of actions, from that of killing a young man, or any other man.

The cause of making mixed modes

§5. If we should inquire a little further, to see *what* it is, that *occasions men to make several combinations of simple ideas* into distinct, and, as it were, settled *modes*, and neglect others, which in the nature of things themselves, have as much an aptness to be combined, and make distinct ideas, we shall find the reason of it to be the end of language; which being to mark, or communicate men's thoughts to one another, with all the dispatch that may be, they usually make such collections of ideas

into complex modes, and affix names to them, as they have frequent use of in their way of living and conversation, leaving others, which they have but seldom an occasion to mention, loose and without names, that tie them together: they rather choosing to enumerate (when they have need) such ideas as make them up, by the particular names that stand for them, than to trouble their memories by multiplying of complex ideas with names to them, which they shall seldom or never have any occasion to make use of.

Why words in one language, have none answering in another

§6. This shows us *how it comes to pass, that there are in every language many particular words, which cannot be rendered by any one single word of another.* For the several fashions, customs, and manners of one nation, making several combinations of ideas familiar and necessary in one, which another people have had never any occasion to make, or, perhaps, so much as take notice of, names come of course to be annexed to them, to avoid long periphrases in things of daily conversation; and so they become so many distinct complex ideas in their minds. Thus ὀστρακισμός[1] amongst the Greeks, and *proscriptio*[2] amongst the Romans, were words which other languages had no names that exactly answered, because they stood for complex ideas, which were not in the minds of the men of other nations. Where there was no such custom, there was no notion of any such actions; no use of such combinations of ideas, as were united, and, as it were, tied together by those terms: and therefore in other countries there were no names for them.

And languages change

§7. Hence also we may see the reason, *why languages constantly change*, take up new, and lay by old terms. Because change of customs and opinions bringing with it new combinations of ideas, which it is necessary frequently to think on, and talk about, new names, to avoid long descriptions, are annexed to them; and so they become new species of complex modes. What a number of different ideas are by this means wrapped up in one short sound, and how much of our time and breath is thereby saved, anyone will see, who will but take the pains to enumerate all the ideas, that either 'reprieve' or 'appeal' stand for; and instead of either of those names, use a periphrasis, to make anyone understand their meaning.

Mixed modes, where they exist

§8. Though I shall have occasion to consider this more at large, when I come to treat of words, and their use; yet I could not avoid to take thus much notice here of the names of *mixed modes*, which being fleeting, and transient combinations of simple ideas, which have but a short existence anywhere, but in the minds of men, and there too have no longer any existence, than whilst they are thought on, *have not*

so much anywhere the appearance of a constant and lasting existence, as in their names: which are therefore, in these sort of ideas, very apt to be taken for the ideas themselves. For if we should inquire where the idea of a *triumph*, or *apotheosis*[3] exists, it is evident they could neither of them exist altogether anywhere in the things themselves, being actions that required time to their performance, and so could never all exist together: and as to the minds of men, where the ideas of these actions are supposed to be lodged, they have there too a very uncertain existence; and therefore we are apt to annex them to the names that excite them in us.

How we get the ideas of mixed modes

§9. There are therefore *three ways whereby we get the complex ideas of mixed modes*. 1. By experience and *observation* of things themselves. Thus by seeing two men wrestle, or fence, we get the idea of wrestling or fencing. 2. By *invention*, or voluntary putting together of several simple ideas in our own minds: so he that first invented printing, or etching, had an idea of it in his mind, before it ever existed. 3. Which is the most usual way, by *explaining the names* of actions we never saw, or notions we cannot see; and by enumerating, and thereby, as it were, setting before our imaginations all those ideas which go to the making them up, and are the constituent parts of them. For having by *sensation* and *reflection* stored our minds with simple ideas, and by use got the names, that stand for them, we can by those names represent to another any complex idea we would have him conceive; so that it has in it no simple ideas, but what he knows, and has, with us, the same name for. For all our complex ideas are ultimately resolvable into simple ideas, of which they are compounded, and originally made up, though perhaps their immediate ingredients, as I may so say, are also complex ideas. Thus the *mixed mode*, which the word *lie* stands for, is made of these simple ideas: 1. Articulate sounds. 2. Certain ideas in the mind of the speaker. 3. Those words the signs of those ideas. 4. Those signs put together by affirmation or negation, otherwise than the ideas they stand for, are in the mind of the speaker. I think I need not go any further in the analysis of that complex idea, we call a *lie*: what I have said is enough to show, that it is made up of simple ideas: and it could not but be an offensive tediousness to my reader, to trouble him with a more minute enumeration of every particular simple idea, that goes to this complex one; which, from what has been said, he cannot but be able to make out to himself. The same may be done in all our complex ideas whatsoever; which, however compounded, and decompounded, may at last be resolved into simple ideas, which are all the materials of knowledge or thought we have, or can

have. Nor shall we have reason to fear, that the mind is hereby stinted to too scanty a number of ideas, if we consider, what an inexhaustible stock of simple modes, number, and figure alone affords us. How far then *mixed modes*, which admit of the various combinations of different simple ideas, and their infinite modes, are from being few and scanty, we may easily imagine. So that before we have done, we shall see, that, nobody need be afraid, he shall not have scope, and compass enough for his thoughts to range in, though they be, as I pretend, confined only to simple ideas received from sensation or reflection, and their several combinations.

Motion, thinking, and power, have been most modified

§10. It is worth our observing, *which of all our simple ideas have been most modified, and had most mixed modes made out of them, with names given to them*: and those have been these three; thinking, and motion, (which are the two ideas which comprehend in them all action,) and power, from whence these actions are conceived to flow. These simple ideas, I say, of thinking, motion, and power, have been those which have been most modified; and out of whose modifications have been made most complex modes, with names to them. For action being the great business of mankind, and the whole matter about which all laws are conversant, it is no wonder, that the several modes of thinking and motion, should be taken notice of, the ideas of them observed, and laid up in the memory, and have names assigned to them; without which, laws could be but ill-made, or vice and disorder repressed. Nor could any communication be well had amongst men, without such complex ideas, with names to them: and therefore men have settled names, and supposed settled ideas, in their minds, of modes of actions distinguished by their causes, means, objects, ends, instruments, time, place, and other circumstances; and also of their powers fitted for those actions, *v.g.* boldness is the power to speak or do what we intend, before others, without fear or disorder; and the Greeks call the confidence of speaking by a peculiar name παῤῥησία:[4] which power or ability in man, of doing anything, when it has been acquired by frequent doing the same thing, is that idea we name *habit*; when it is forward, and ready upon every occasion to break into action, we *call* it *disposition*: thus *testiness* is a disposition or aptness to be angry.

To conclude, let us examine any *modes of action*, v.g. *consideration* and *assent*, which are actions of the mind; *running* and *speaking*, which are actions of the body; *revenge* and *murder*, which are actions of both together, and we shall find them but so many *collections of simple ideas*, which together make up the complex ones signified by those names.

Several words seeming to signify action, signify but the effect

§11. *Power* being the source from whence all action proceeds, the substances wherein these powers are, when they exert this power into act, are called *causes*; and the substances which thereupon are produced, or the simple ideas which are introduced into any subject by the exerting of that power, are called *effects*. The *efficacy* whereby the new substance or idea is produced, is called, in the subject exerting that power, *action*; but in the subject, wherein any simple idea is changed or produced, it is called *passion*: which efficacy however various, and the effects almost infinite; yet we can, I think, conceive it, in intellectual agents, to be nothing else but modes of thinking and willing; in corporeal agents, nothing else but modifications of motion. I say, I think we cannot conceive it to be any other but these two: for whatever sort of action, besides these, produces any effects, I confess myself to have no notion, nor idea of; and so it is quite remote from my thoughts, apprehensions, and knowledge; and as much in the dark to me as five other senses, or as the ideas of colours to a blind man: and therefore *many words, which seem to express some action*, signify nothing of the action, or *modus operandi*[5] at all, *but* barely *the effect*, with some circumstances of the subject wrought on, or cause operating, *v.g.* creation, annihilation, contain in them no idea of the action or manner, whereby they are produced, but barely of the cause, and the thing done. And when a countryman says the cold freezes water, though the word freezing seems to import some *action*, yet truly it signifies nothing, but the effect, *viz.* that water, that was before fluid, is become hard and consistent, without containing any idea of the action whereby it is done.

Mixed modes, made also of other ideas

§12. I think I shall not need to remark here, that though power and action make the greatest part of mixed modes, marked by names, and familiar in the minds and mouths of men; yet other simple ideas, and their several combinations, are *not* excluded; much less, I think, will it be *necessary* for me *to enumerate all the mixed modes*, which have been settled, with names to them. That would be to make a dictionary of the greatest part of the words made use of in divinity, ethics, law, and politics, and several other sciences. All that is requisite to my present design, is, to show what sort of ideas those are which I call *mixed modes*; how the mind comes by them; and that they are compositions made up of simple ideas got from sensation and reflection; which, I suppose, I have done.

CHAPTER XXIII

Of Our Complex Ideas of Substances[1]

Ideas of substances, how made

§1. The mind being, as I have declared, furnished with a great number of the simple ideas, conveyed in by the *senses*, as they are found in exterior things, or by *reflection* on its own operations, takes notice also, that a certain number of these simple ideas go constantly together; which being presumed to belong to one thing, and words being suited to common apprehensions, and made use of for quick dispatch, are called, so united in one subject, by one name; which, by inadvertency, we are apt afterward to talk of, and consider as one simple idea, which indeed is a complication of many ideas together: because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom ourselves, to suppose some *substratum*, wherein they do subsist, and from which they do result; which therefore we call *substance*.[D]

Our idea of substance in general

§2. So that if anyone will examine himself concerning his *notion of pure substance in general*, he will find he has no other idea of it at all, but only a supposition of he knows not what support of such qualities, which are capable of producing simple ideas in us; which qualities are commonly called accidents. If anyone should be asked, what is the subject wherein colour or weight inheres, he would have nothing to say, but the solid extended parts: and if he were demanded what is it, that the solidity and extension inhere in, he would not be in a much better case, than the Indian before-mentioned,[2] who, saying that the world was supported by a great elephant, was asked, what the elephant rested on? to which his answer was, a great tortoise: but being again pressed to know what gave support to the broad-backed tortoise, replied, something, he knew not what. And thus here, as in all other cases, where we use words without having clear and distinct ideas, we talk like children; who, being questioned, what such a thing is, which they know not, readily give this satisfactory answer, that it is *something*; which in truth signifies no more, when so used, either by children or men, but that they know not what; and that the thing they pretend to know, and talk of, is what they have no distinct idea of at all, and so are perfectly ignorant of it, and in the dark. The idea then we have, to which we give the general name substance, being

nothing, but the supposed, but unknown support of those qualities, we find existing, which we imagine cannot subsist, *sine re substante*,[3] without something to support them, we call that support *substantia*;[4] which, according to the true import of the word, is in plain English, *standing under*, or *upholding*.[E]

Of the sorts of substances

§3. An obscure and relative idea of substance in general, being thus made, we come to have the *ideas of particular sorts of substances*, by collecting such combinations of simple ideas, as are by experience and observation of men's senses, taken notice of to exist together, and are therefore supposed to flow from the particular internal constitution, or unknown essence of that substance. Thus we come to have the ideas of a man, horse, gold, water, *etc.* of which substances, whether anyone has any other clear idea, further than of certain simple ideas co-existing together, I appeal to everyone's own experience. 'Tis the ordinary qualities, observable in iron, or a diamond, put together, that make the true complex idea of those substances, which a smith, or a jeweller, commonly knows better than a philosopher; who, whatever substantial forms[5] he may talk of, has no other idea of those substances, than what is framed by a collection of those simple ideas which are to be found in them; only we must take notice, that our complex ideas of substances, besides all these simple ideas they are made up of, have always the confused idea of *something* to which they belong, and in which they subsist: and therefore when we speak of any sort of substance, we say it is a *thing* having such or such qualities, as body is a *thing* that is extended, figured, and capable of motion; a spirit, a *thing* capable of thinking; and so hardness, friability,[6] and power to draw iron, we say, are qualities to be found in a loadstone.[7] These, and the like fashions of speaking, intimate, that the substance is supposed always *something* besides the extension, figure, solidity, motion, thinking, or other observable ideas, though we know not what it is.

No clear idea of substance in general

§4. Hence when we talk or think of any particular sort of corporeal substances, as *horse*, *stone*, *etc.* though the idea we have of either of them, be but the complication, or collection of those several simple ideas of sensible qualities, which we use to find united in the thing called *horse* or *stone*; yet because we cannot conceive how they should subsist alone, nor one in another, we suppose them existing in, and supported by some common subject; *which support, we denote by the name substance*, though it be certain, we have no clear or distinct idea of that *thing* we suppose a support.

As clear an idea of spirit, as body

§5. The same happens concerning the operations of the mind, *viz.* thinking, reasoning, fearing, *etc.* which we concluding not to subsist of themselves, nor apprehending how they can belong to body, or be produced by it, we are apt to think these the actions of some other *substance*, which we call *spirit*; whereby yet it is evident, that having no other idea or notion of matter, but *something* wherein those many sensible qualities, which affect our senses, do subsist; by supposing a substance, wherein *thinking*, *knowing*, *doubting*, and a power of moving, *etc.* do subsist, *we have as clear a notion of the substance of spirit, as we have of body*; the one being supposed to be (without knowing what it is) the *substratum* to those simple ideas we have from without; and the other supposed (with a like ignorance of what it is) to be the *substratum* to those operations which we experiment in ourselves within. 'Tis plain then, that the idea of corporeal *substance* in matter, is as remote from our conceptions, and apprehensions, as that of spiritual *substance*, or *spirit*; and therefore from our not having any notion of the *substance* of spirit, we can no more conclude its non-existence, than we can, for the same reason, deny the existence of body: it being as rational to affirm, there is no body, because we have no clear and distinct idea of the *substance* of matter, as to say, there is no spirit, because we have no clear and distinct idea of the *substance* of a spirit.

Of the sorts of substances

§6. Whatever therefore be the secret and abstract nature of *substance* in general, all *the ideas we have of particular distinct sorts of substances*, are nothing but several combinations of simple ideas, co-existing in such, though unknown, cause of their union, as makes the whole subsist of itself. 'Tis by such combinations of simple *ideas*, and nothing else, that we represent particular sorts of *substances* to ourselves; such are the ideas we have of their several species in our minds; and such only do we, by their specific names, signify to others, *v.g. man*, *horse*, *sun*, *water*, *iron*; upon hearing which words, everyone, who understands the language, frames in his mind a combination of those several simple ideas, which he has usually observed, or fancied to exist together under that denomination; all which he supposes to rest in, and be, as it were, adherent to that unknown common subject, which inheres not in anything else. Though in the meantime it be manifest, and everyone upon inquiry into his own thoughts, will find that he has no other idea of any *substance*, *v.g.* let it be *gold*, *horse*, *iron*, *man*, *vitriol*, *bread*, but what he has barely of those sensible qualities, which he supposes to inhere, with a supposition of such a *substratum*, as gives as it were a support to those qualities, or simple ideas, which he has observed to exist united together.

Thus the idea of the *Sun*, what is it, but an aggregate of those several simple ideas, bright, hot, roundish, having a constant regular motion, at a certain distance from us, and, perhaps, some other? as he who thinks and discourses of the *Sun*, has been more or less accurate, in observing those sensible qualities, ideas, or properties, which are in that thing, which he calls the *Sun*.

Power a great part of our complex ideas of substances

§7. For he has the perfectest idea of any of the particular sorts of *substance*, who has gathered, and put together, most of those simple ideas, which do exist in it, among which are to be reckoned its active powers, and passive capacities; which though not simple ideas, yet, in this respect, for brevity's sake, may conveniently enough be reckoned amongst them. Thus the power of drawing iron, is one of the ideas of the complex one of that substance we call a *loadstone*,[8] and a power to be so drawn, is a part of the complex one we call *iron*; which powers pass for inherent qualities in those subjects. Because every *substance* being as apt, by the powers we observe in it, to change some sensible qualities in other subjects, as it is to produce in us those simple ideas, which we receive immediately from it, does, by those new sensible qualities introduced into other subjects, discover to us those powers, which do thereby mediately affect our senses, as regularly as its sensible qualities do it immediately, *v.g.* we immediately by our senses perceive in *fire* its heat and colour; which are, if rightly considered, nothing but powers in it, to produce those ideas in us: we also by our senses perceive the colour and brittleness of *charcoal*, whereby we come by the knowledge of another power in fire, which it has to change the colour and consistency of wood. By the former fire immediately, by the latter it mediately discovers to us these several powers, which therefore we look upon to be a part of the qualities of fire, and so make them a part of the complex ideas of it. For all those powers that we take cognizance of, terminating only in the alteration of some sensible qualities, in those subjects on which they operate, and so making them exhibit to us new sensible ideas; therefore it is that I have reckoned these powers amongst the simple ideas, which make the complex ones of the sorts of *substances*; though these powers considered in themselves, are truly complex ideas. And in this looser sense, I crave leave to be understood, when I name any of these *potentialities amongst the simple ideas*, which we recollect in our minds, when we think *of particular substances*. For the powers that are severally in them, are necessary to be considered, if we will have true distinct notions of the several sorts of substances.

And why §8. Nor are we to wonder, that *powers make a great part of our complex ideas of substances*; since their secondary qualities are those, which in most of them serve principally to distinguish substances one from another, and commonly make a considerable part of the complex idea of the several sorts of them. For our senses failing us in the discovery of the bulk, texture, and figure of the minute parts of bodies, on which their real constitutions and differences depend, we are fain to make use of their secondary qualities, as the characteristical notes and marks, whereby to frame ideas of them in our minds, and distinguish them one from another. All which secondary qualities, as has been shown, are nothing but bare powers. For the colour and taste of *opium*, are, as well as its soporific or anodyne virtues, mere powers depending on its primary qualities, whereby it is fitted to produce different operations on different parts of our bodies.

Three sorts of ideas make our complex ones of substances

§9. *The ideas that make our complex ones of corporeal substances*, are of these three sorts. *First*, the ideas of the primary qualities of things, which are discovered by our senses, and are in them even when we perceive them not, such are the bulk, figure, number, situation, and motion of the parts of bodies, which are really in them, whether we take notice of them or no. *Secondly*, the sensible secondary qualities, which depending on these, are nothing but the powers those substances have to produce several ideas in us by our senses; which ideas are not in the things themselves otherwise than as anything is in its cause. *Thirdly*, the aptness we consider in any substance, to give or receive such alterations of primary qualities, as that the substance so altered should produce in us different ideas from what it did before; these are called active and passive powers: all which powers, as far as we have any notice or notion of them, terminate only in sensible simple ideas. For whatever alteration a *loadstone*[9] has the power to make in the minute particles of iron, we should have no notion of any power it had at all to operate on iron, did not its sensible motion discover it; and I doubt not, but there are a thousand changes, that bodies we daily handle, have a power to cause in one another, which we never suspect, because they never appear in sensible effects.

Powers make a great part of our complex ideas of substances

§10. *Powers* therefore justly *make a great part of our complex ideas of substances*. He, that will examine his complex idea of gold, will find several of its ideas, that make it up, to be only powers, as the power of being melted, but of not spending itself in the fire; of being dissolved in *aqua regia*,[10] are ideas, as necessary to make up our complex idea of gold, as its colour and weight: which, if duly considered, are also

nothing but different powers. For to speak truly, yellowness is not actually in gold; but is a power in gold to produce that idea in us by our eyes, when placed in a due light: and the heat, which we cannot leave out of our idea of the Sun, is no more really in the Sun, than the white colour it introduces into wax. These are both equally powers in the Sun, operating, by the motion and figure of its insensible parts, so on a man, as to make him have the idea of heat; and so on wax, as to make it capable to produce in a man the idea of white.

The now secondary qualities of bodies would disappear, if we could discover the primary ones of their minute parts

§11. Had we senses acute enough to discern the minute particles of bodies, and the real constitution on which their sensible qualities depend, I doubt not but they would produce quite different ideas in us; and that which is now the yellow colour of gold, would then disappear, and instead of it, we should see an admirable texture of parts of a certain size and figure. This microscopes[11] plainly discover to us: for what to our naked eyes produces a certain colour, is by thus augmenting the acuteness of our senses, discovered to be quite a different thing; and the thus altering, as it were, the proportion of the bulk of the minute parts of a coloured object to our usual sight, produces different ideas from what it did before. Thus sand, or pounded glass, which is opaque, and white to the naked eye, is pellucid[12] in a microscope; and a hair seen this way, loses its former colour, and is in a great measure pellucid, with a mixture of some bright sparkling colours, such as appear from the refraction of diamonds, and other pellucid bodies. Blood to the naked eye, appears all red; but by a good microscope, wherein its lesser parts appear, shows only some few globules of red, swimming in a pellucid liquor; and how these red globules would appear, if glasses could be found that yet could magnify them 1000, or 10000 times more, is uncertain.

Our faculties of discovery suited to our state

§12. The infinite wise contriver of us, and all things about us, hath fitted our senses, faculties, and organs, to the conveniences of life, and the business we have to do here. We are able, by our senses, to know, and distinguish things; and to examine them so far, as to apply them to our uses, and several ways to accommodate the exigences of this life. We have insight enough into their admirable contrivances, and wonderful effects, to admire and magnify the wisdom, power, and goodness of their author. Such a knowledge as this, which is suited to our present condition, we want not faculties to attain. But it appears not, that God intended we should have a perfect, clear, and adequate knowledge of them:

that perhaps is not in the comprehension of any finite being. We are furnished with faculties (dull and weak as they are) to discover enough in the creatures, to lead us to the knowledge of the Creator, and the knowledge of our duty; and we are fitted well enough with abilities, to provide for the conveniences of living: These are our business in this world. But were our senses altered, and made much quicker and acuter, the appearance and outward scheme of things would have quite another face to us; and I am apt to think, would be inconsistent with our being, or at least well-being in this part of the universe, which we inhabit. He that considers how little our constitution is able to bear a remove into parts of this air, not much higher than that we commonly breathe in, will have reason to be satisfied, that in this globe of Earth allotted for our mansion, the all-wise architect has suited our organs, and the bodies that are to affect them, one to another. If our sense of hearing were but 1000 times quicker than it is, how would a perpetual noise distract us. And we should in the quietest retirement, be less able to sleep or meditate, than in the middle of a sea-fight. Nay, if that most instructive of our senses, seeing, were in any man 1000, or 100000 times more acute than it is now by the best microscope, things several millions of times less than the smallest object of his sight now, would then be visible to his naked eyes, and so he would come nearer the discovery of the texture and motion of the minute parts of corporeal things; and in many of them, probably get ideas of their internal constitutions: but then he would be in a quite different world from other people: nothing would appear the same to him, and others: the visible ideas of everything, would be different. So that I doubt, whether he, and the rest of men, could discourse concerning the objects of sight; or have any communication about colours, their appearances being so wholly different. And perhaps such a quickness and tenderness of sight could not endure bright Sunshine, or so much as open daylight; nor take in but a very small part of any object at once, and that too only at a very near distance. And if by the help of such microscopical eyes, (if I may so call them,) a man could penetrate further than ordinary into the secret composition, and radical texture of bodies, he would not make any great advantage by the change, if such an acute sight would not serve to conduct him to the market and exchange;[13] if he could not see things he was to avoid, at a convenient distance, nor distinguish things he had to do with, by those sensible qualities others do. He that was sharp-sighted enough to see the configuration of the minute particles of the spring of a clock, and observe upon what peculiar structure and impulse its elastic

motion depends, would no doubt discover something very admirable: but if eyes so framed, could not view at once the hand, and the characters of the hour-plate, and thereby at a distance see what a-clock it was, their owner could not be much benefited by that acuteness; which, whilst it discovered the secret contrivance of the parts of the machine, made him lose its use.

Conjecture about spirits

§13. And here give me leave to propose an extravagant conjecture of mine, *viz.* that since we have some reason (if there be any credit to be given to the report of things, that our philosophy cannot account for,) to imagine, that spirits can assume to themselves bodies of different bulk, figure, and conformation of parts.[14] Whether one great advantage some of them have over us, may not lie in this, that they can so frame, and shape to themselves organs of sensation or perception, as to suit them to their present design, and the circumstances of the object they would consider. For how much would that man exceed all others in knowledge, who had but the faculty so to alter the structure of his eyes, that one sense, as to make it capable of all the several degrees of vision, which the assistance of glasses (casually at first light on) has taught us to conceive? What wonders would he discover, who could so fit his eye to all sorts of objects, as to see, when he pleased, the figure and motion of the minute particles in the blood, and other juices of animals as distinctly as he does, at other times, the shape and motion of the animals themselves. But to us, in our present state, unalterable organs, so contrived, as to discover the figure and motion of the minute parts of bodies, whereon depend those sensible qualities we now observe in them, would, perhaps, be of no advantage. God has, no doubt, made us so, as is best for us in our present condition. He hath fitted us for the neighbourhood of the bodies that surround us, and we have to do with: and though we cannot, by the faculties we have, attain to a perfect knowledge of things; yet they will serve us well enough for those ends above-mentioned, which are our great concernment. I beg my reader's pardon, for laying before him so wild a fancy, concerning the ways of perception in beings above us: but how extravagant soever it be, I doubt whether we can imagine anything about the knowledge of angels, but after this manner, some way or other, in proportion to what we find and observe in ourselves. And though we cannot but allow, that the infinite power and wisdom of God, may frame creatures with a thousand other faculties, and ways of perceiving things without them, than what we have; yet our thoughts can go no further than our own, so impossible it is for us to enlarge our very guesses beyond

the ideas received from our own sensation and reflection. The supposition at least, that angels do sometimes assume bodies,[15] needs not startle us, since some of the most ancient, and most learned Fathers of the Church, seemed to believe, that they had bodies: and this is certain, that their state and way of existence, is unknown to us.

Complex ideas of substances

§14. But to return to the matter in hand, the ideas we have of substances, and the ways we come by them; I say *our specific ideas of substances* are nothing else but *a collection of a certain number of simple ideas, considered as united in one thing.* These ideas of substances, though they are commonly called simple apprehensions, and the names of them simple terms; yet in effect, are complex and compounded. Thus the idea which an Englishman signifies by the name *swan*, is white colour, long neck, red beak, black legs, and whole feet, and all these of a certain size, with a power of swimming in the water, and making a certain kind of noise, and perhaps to a man, who has long observed those kind of birds, some other properties, which all terminate in sensible simple ideas, all united in one common subject.

Idea of spiritual substances, as clear as of bodily substances

§15. Besides the complex ideas we have of material sensible substances, of which I have last spoken, by the simple ideas we have taken from those operations of our own minds, which we experiment daily in ourselves, as thinking, understanding, willing, knowing, and power of beginning motion, *etc.* co-existing in some substance, we are able to frame *the complex idea of an immaterial spirit.* And thus, by putting together the ideas of thinking, perceiving, liberty, and power of moving themselves and other things, we have as clear a perception and notion of immaterial substances, as we have of material. For putting together the ideas of thinking and willing, or the power of moving or quieting corporeal motion, joined to substance, of which we have no distinct idea, we have the idea of an immaterial spirit; and by putting together the ideas of coherent solid parts, and a power of being moved, joined with substance, of which likewise we have no positive idea, we have the idea of matter. The one is as clear and distinct an idea, as the other: the idea of thinking, and moving a body, being as clear and distinct ideas, as the ideas of extension, solidity, and being moved. For our idea of substance, is equally obscure, or none at all in both; it is but a supposed, I know not what, to support those ideas we call accidents. It is for want of reflection, that we are apt to think, that our senses show us nothing but material things. Every act of sensation, when duly considered, gives us an equal view of both parts of nature, the corporeal and spiritual. For whilst I know, by seeing or

hearing, *etc.* that there is some corporeal being without me, the object of that sensation, I do more certainly know, that there is some spiritual being within me, that sees and hears. This I must be convinced cannot be the action of bare insensible matter; nor ever could be without an immaterial thinking being.

No idea of abstract substance

§16. By the complex idea of extended, figured, coloured, and all other sensible qualities, which is all that we know of it, we are as far from the idea of the substance of body, as if we knew nothing at all: *nor* after all the acquaintance and familiarity, which we imagine we *have* with matter, and the many qualities *men* assure themselves they perceive and know in bodies, will it, perhaps, upon examination be found, that they have any *more, or clearer, primary ideas belonging to body, than they have belonging to immaterial spirit.*

The cohesion of solid parts, and impulse, the primary ideas of body

§17. *The primary ideas we have peculiar to body*, as contradistinguished to spirit, *are the cohesion of solid*, and consequently separable *parts, and a power of communicating motion by impulse.* These, I think, are the original ideas proper and peculiar to body: for figure is but the consequence of finite extension.

Thinking and motivity, the primary ideas of spirit

§18. *The ideas we have* belonging, and *peculiar to spirit, are thinking, and will*, or a power of putting body into motion by thought, and, which is consequent to it, liberty. For as body cannot but communicate its motion by impulse, to another body, which it meets with at rest; so the mind can put bodies into motion, or forbear to do so, as it pleases. The ideas of existence, duration, and mobility, are common to them both.

Spirits capable of motion

§19. There is no reason why it should be thought strange, that I make *mobility belong to spirit*: for having no other idea of motion, but change of distance, with other beings, that are considered as at rest; and finding, that spirits, as well as bodies, cannot operate but where they are, and that spirits do operate at several times in several places, I cannot but attribute change of place to all finite spirits; (for of the infinite spirit, I speak not here.) For my soul being a real being, as well as my body, is certainly as capable of changing distance with any other body, or being, as body itself; and so is capable of motion. And if a mathematician can consider a certain distance, or a change of that distance between two points, one may certainly conceive a distance, and a change of distance between two spirits; and so conceive their motion, their approach or removal, one from another.

§20. Everyone finds in himself, that his soul can think, will, and operate on his body, in the place where that is; but cannot operate on a body, or in a place, an hundred miles distant from it. Nobody can imagine, that his soul can think, or move a body at Oxford, whilst he is at London; and cannot but know, that being united to his body, it constantly changes place all the whole journey, between Oxford and London, as the coach or horse does, that carries him; and I think may be said to be truly all that while in motion, or if that will not be allowed to afford us a clear idea enough of its motion, its being separated from the body in death, I think, will: for to consider it as going out of the body, or leaving it, and yet to have no idea of its motion, seems to me impossible.

§21. If it be said by anyone, that it cannot change place, because it hath none, for spirits are not *in loco*, but *ubi*;[16] I suppose that way of talking, will not now be of much weight to many in an age that is not much disposed to admire, or suffer themselves to be deceived by such unintelligible ways of speaking. But if anyone thinks there is any sense in that distinction, and that it is applicable to our present purpose, I desire him to put it into intelligible English; and then from thence draw a reason to show, that immaterial spirits are not capable of motion. Indeed motion cannot be attributed to GOD, not because he is an immaterial, but because he is an infinite spirit.

Idea of soul and body compared

§22. Let us *compare* then our complex idea of an immaterial spirit, with our complex idea of body, and see whether there be any more obscurity in one, than in the other, and in which most. Our idea of body, as I think, is an extended solid substance, capable of communicating motion by impulse: and our idea of our soul, as an immaterial spirit, is of a substance that thinks, and has a power of exciting motion in body, by will, or thought. These, I think, are *our complex ideas of soul and body, as contra-distinguished*; and now let us examine which has most obscurity in it, and difficulty to be apprehended. I know, that people, whose thoughts are immersed in matter,[17] and have so subjected their minds to their senses, that they seldom reflect on anything beyond them, are apt to say, they cannot comprehend a thinking thing, which, perhaps, is true: but I affirm, when they consider it well, they can no more comprehend an extended thing.

Cohesion of solid parts in body, as hard to be conceived as thinking in a soul

§23. If anyone say, he knows not what 'tis thinks in him; he means, he knows not what the substance is of that thinking thing: no more, say I, knows he what the substance is of that solid thing. Further, if he says, he knows not how he thinks; I answer, neither knows he how he is extended; how the solid

parts of body are united, or cohere together to make extension. For though the pressure of the particles of air may account for the *cohesion of several parts of matter*, that are grosser than the particles of air, and have pores less than the corpuscles of air; yet the weight, or pressure of the air, will not explain, nor can be a cause of the coherence of the particles of air themselves. And if the pressure of the æther,[18] or any subtler matter than the air, may unite, and hold fast together the parts of a particle of air, as well as other bodies;[19] yet it cannot make bonds for itself, and hold together the parts that make up every the least corpuscle of that *materia subtilis*.[20] So that that hypothesis, how ingeniously soever explained, by showing, that the parts of sensible bodies are held together by the pressure of other external insensible bodies, reaches not the parts of the æther itself; and by how much the more evident it proves, that the parts of other bodies are held together, by the external pressure of the æther, and can have no other conceivable cause of their cohesion and union, by so much the more it leaves us in the dark concerning the cohesion of the parts of the corpuscles of the æther itself; which we can neither conceive without parts, they being bodies, and divisible; nor yet how their parts cohere, they wanting that cause of cohesion, which is given of the cohesion of the parts of all other bodies.

§24. But in truth, *the pressure of any ambient fluid*, how great soever, *can be no* intelligible *cause of the cohesion of the solid parts of matter.* For though such a pressure may hinder the avulsion of two polished superficies one from another, in a line perpendicular to them, as in the experiment of two polished marbles;[21] yet it can never, in the least, hinder the separation by a motion, in a line parallel to those surfaces. Because the ambient fluid, having a full liberty to succeed in each point of space, deserted by a lateral motion, resists such a motion of bodies so joined, no more than it would resist the motion of that body, were it on all sides environed by that fluid, and touched no other body: and therefore, if there were no other cause of cohesion, all parts of bodies must be easily separable by such a lateral sliding motion. For if the pressure of the æther be the adequate cause of cohesion, wherever that cause operates not, there can be no cohesion. And since it cannot operate against such a lateral separation, (as has been showed,) therefore in every imaginary plain, intersecting any mass of matter, there could be no more cohesion, than of two polished surfaces, which will always, notwithstanding any imaginable pressure of a fluid, easily slide one from another. So that perhaps, how clear an idea soever we think we have of the extension of body, which is nothing but the cohesion of solid parts, he

that shall well consider it in his mind, may have reason to conclude, that 'tis *as easy* for him *to have a clear idea, how the soul thinks, as how body is extended.* For since body is no further, nor otherwise extended, than by the union and cohesion of its solid parts, we shall very ill comprehend the *extension* of body, without understanding wherein consists the union and cohesion of its parts; which seems to me as incomprehensible, as the manner of thinking, and how it is performed.

§25. I allow it is usual for most people to wonder, how anyone should find a difficulty in what they think they every day observe. Do we not see, will they be ready to say, the parts of bodies stick firmly together? Is there anything more common? And what doubt can there be made of it? And the like, I say, concerning *thinking*, and *voluntary motion*: do we not every moment experiment it in ourselves; and therefore can it be doubted? The matter of fact is clear, I confess; but when we would a little nearer look into it, and consider how it is done, there, I think, we are at a loss, both in the one, and the other; and can as little understand how the parts of body cohere, as how we ourselves perceive, or move. I would have anyone intelligibly explain to me, how the parts of gold, or brass, (that but now in fusion were as loose from one another, as the particles of water, or the sands of an hour-glass,) come in a few moments to be so united, and adhere so strongly one to another, that the utmost force of men's arms cannot separate them: a considering man will, I suppose, be here at a loss, to satisfy his own, or another man's understanding.

§26. The little bodies that compose that fluid, we call *water*, are so extremely small, that I have never heard of anyone, who by a microscope, (and yet I have heard of some, that have magnified to 10000; nay, to much above 100,000 times,) pretended to perceive their distinct bulk, figure, or motion: and the particles of *water* are also so perfectly loose one from another, that the least force sensibly separates them. Nay, if we consider their perpetual motion, we must allow them to have no cohesion one with another; and yet let but a sharp cold come, and they unite, they consolidate, these little atoms cohere, and are not, without great force, separable. He that could find the bonds that tie these heaps of loose little bodies together so firmly; he that could make known the cement that makes them stick so fast one to another, would discover a great, and yet unknown secret: and yet when that was done, would he be far enough from making the extension of body (which is the cohesion of its solid parts) intelligible, till he could show wherein consisted the union, or consolidation of the parts of those

bonds, or of that cement, or of the least particle of matter that exists. Whereby it appears, that this primary and supposed obvious quality of body, will be found, when examined, to be as incomprehensible, as anything belonging to our minds, and *a solid extended substance, as hard to be conceived, as a thinking immaterial one*, whatever difficulties some would raise against it.

§27. For to extend our thoughts a little further, that pressure, which is brought to explain the cohesion of bodies, is as unintelligible as the cohesion itself. For if matter be considered, as no doubt it is, finite, let anyone send his contemplation to the extremities of the universe, and there see what conceivable hoops, what bond he can imagine to hold this mass of matter in so close a pressure together, from whence steel has its firmness, and the parts of a diamond their hardness and indissolubility. If matter be finite, it must have its extremes; and there must be something to hinder it from scattering asunder. If, to avoid this difficulty, anyone will throw himself into the supposition and abyss of infinite matter, let him consider what light he thereby brings to the *cohesion* of body; and whether he be ever the nearer making it intelligible, by resolving it into a supposition, the most absurd and most incomprehensible of all other: so far is our extension of body (which is nothing but the cohesion of solid parts,) from being clearer, or more distinct, when we would inquire into the nature, cause, or manner of it, than the idea of thinking.

Communication of motion by impulse, or by thought, equally intelligible

§28. Another idea we have of body, is the power of *communication of motion by impulse*; and of our souls, the power of *exciting of motion by thought*. These ideas, the one of body, the other of our minds, every day's experience clearly furnishes us with: but if here again we inquire how this is done, we *are equally in the dark*. For in the communication of motion by impulse, wherein as much motion is lost to one body, as is got to the other, which is the ordinariest case, we can have no other conception, but of the passing of motion out of one body into another; which, I think, is as obscure and unconceivable, as how our minds move or stop our bodies by thought; which we every moment find they do. The increase of motion by impulse, which is observed or believed sometimes to happen, is yet harder to be understood. We have by daily experience, clear evidence of motion produced both by impulse, and by thought; but the manner how, hardly comes within our comprehension; we are equally at a loss in both. So that however we consider motion, and its communication either from body or spirit, *the idea which belongs to spirit, is at least as clear, as that that belongs to body*. And if we

consider the active power of moving, or, as I may call it, *motivity*, it is much clearer in spirit, than body, since two bodies, placed by one another at rest, will never afford us the idea of a power in the one to move the other, but by a borrowed motion: whereas the mind, every day, affords us ideas of an active power of moving of bodies; and therefore it is worth our consideration, whether active power be not the proper attribute of spirits, and passive power of matter. Hence may be conjectured, that created spirits are not totally separate from matter, because they are both active and passive. Pure spirit, *viz.* God, is only active; pure matter, is only passive; those beings that are both active and passive, we may judge to partake of both. But be that as it will, I think, we have as many, and as clear ideas belonging to spirit, as we have belonging to body, the substance of each being equally unknown to us; and the idea of thinking in spirit, as clear as of extension in body; and the communication of motion by thought, which we attribute to spirit, is as evident as that by impulse, which we ascribe to body. Constant experience makes us sensible of both of these, though our narrow understandings can comprehend neither. For when the mind would look beyond those original ideas we have from sensation or reflection, and penetrate into their causes, and manner of production, we find still it discovers nothing but its own short-sightedness.

§29. To conclude, sensation convinces us, that there are solid extended substances; and reflection, that there are thinking ones: experience assures us of the existence of such beings; and that the one hath a power to move body by impulse, the other by thought; this we cannot doubt of. Experience, I say, every moment furnishes us with the clear ideas, both of the one and the other. But beyond these ideas, as received from their proper sources, our faculties will not reach. If we would inquire further into their nature, causes, and manner, we perceive not the nature of extension clearer than we do of thinking. If we would explain them any further, one is as easy as the other; and there is no more difficulty to conceive how a substance we know not, should by thought set body into motion, than how a substance we know not, should by impulse set body into motion. So that we are no more able to discover wherein the ideas belonging to body consist, than those belonging to spirit. From whence it seems probable to me, that the simple ideas we receive from sensation and reflection, are the boundaries of our thoughts; beyond which, the mind, whatever efforts it would make, is not able to advance one jot; nor can it make any discoveries, when it would pry into the nature and hidden causes of those ideas.

Ideas of body and spirit compared

§30. So that, in short, *the idea* we have *of spirit, compared with the idea* we have *of body*, stands thus: the substance of spirit is unknown to us; and so is the substance of body equally unknown to us: two primary qualities, or properties of body, *viz.* solid coherent parts, and impulse, we have distinct clear ideas of: so likewise we know, and have distinct clear ideas of two primary qualities or properties of spirit, *viz.* thinking, and a power of action; *i.e.* a power of beginning, or stopping several thoughts or motions. We have also the ideas of several qualities inherent in bodies, and have the clear distinct ideas of them: which qualities, are but the various modifications of the extension of cohering solid parts, and their motion. We have likewise the ideas of the several modes of thinking, *viz.* believing, doubting, intending, fearing, hoping; all which, are but the several modes of thinking. We have also the ideas of willing, and moving the body consequent to it, and with the body itself too; for, as has been showed, spirit is capable of motion.

The notion of spirit involves no more difficulty in it than that of body

§31. Lastly, if this notion of immaterial spirit may have, perhaps, some difficulties in it, not easy to be explained, we have therefore no more reason to deny, or doubt the existence of such spirits, than we have to deny, or doubt the existence of body; because the notion of body is cumbered with some difficulties very hard, and, perhaps, impossible to be explained, or understood by us. For I would fain have instanced anything in our notion of spirit more perplexed, or nearer a contradiction, than the very notion of body includes in it; the divisibility *in infinitum* of any finite extension, involving us, whether we grant or deny it, in consequences impossible to be explicated, or made in our apprehensions consistent; consequences that carry greater difficulty, and more apparent absurdity, than anything can follow from the notion of an immaterial knowing substance.

We know nothing beyond our simple ideas

§32. Which we are not at all to wonder at, since we having but some few superficial ideas of things, discovered to us only by the senses from without, or by the mind, reflecting on what it experiments in itself within, have no knowledge beyond that, much less of the internal constitution, and true nature of things, being destitute of faculties to attain it. And therefore experimenting and discovering in ourselves knowledge, and the power of voluntary motion, as certainly as we experiment, or discover in things without us, the cohesion and separation of solid parts, which is the extension and motion of bodies; *we have as much reason to be satisfied with our notion of immaterial spirit, as with our notion of body;*

and the existence of the one, as well as the other. For it being no more a contradiction, that thinking should exist, separate, and independent from solidity; than it is a contradiction, that solidity should exist, separate, and independent from thinking, they being both but simple ideas, independent one from another; and having as clear and distinct ideas in us of thinking, as of solidity, I know not why we may not as well allow a thinking thing without solidity, *i.e. immaterial* to exist, as a solid thing without thinking, *i.e. matter* to exist; especially since it is no harder to conceive how thinking should exist without matter, than how matter should think. For whensoever we would proceed beyond these simple ideas, we have from sensation and reflection, and dive further into the nature of things, we fall presently into darkness and obscurity, perplexedness and difficulties; and can discover nothing further, but our own blindness and ignorance. But whichever of these complex ideas be clearest, that of body, or immaterial spirit, this is evident, that the simple ideas that make them up, are no other than what we have received from sensation or reflection; and so is it of all our other ideas of substances, even of God himself.

Idea of God §33. For if we examine the idea we have of the incomprehensible supreme Being, we shall find, that we come by it the same way; and that the complex ideas we have both of God, and separate spirits, are made up of the simple ideas we receive from *reflection*; *v.g.* having from what we experiment in ourselves, got the ideas of existence and duration; of knowledge and power; of pleasure and happiness; and of several other qualities and powers, which it is better to have, than to be without; when we would frame an idea the most suitable we can to the supreme Being, we enlarge every one of these with our idea of infinity; and so putting them together, make our complex *idea of God.* For that the mind has such a power of enlarging some of its ideas, received from sensation and reflection, has been already showed.

§34. If I find that I know some few things, and some of them, or all, perhaps, imperfectly, I can frame an idea of knowing twice as many; which I can double again, as often as I can add to number; and thus enlarge my idea of knowledge, by extending its comprehension to all things existing, or possible: the same also I can do of knowing them more perfectly; *i.e.* all their qualities, powers, causes, consequences, and relations, *etc.* till all be perfectly known that is in them, or can any way relate to them; and thus frame the idea of infinite or boundless knowledge: the same may also be done of power, till we come to that we call infinite; and also of the duration

of existence, without beginning or end; and so frame the idea of an eternal Being. The degrees or extent, wherein we ascribe existence, power, wisdom, and all other perfection, (which we can have any ideas of) to that sovereign Being, which we call God, being all boundless and infinite, we frame the best idea of him our minds are capable of: all which is done, I say, by enlarging those simple ideas, we have taken from the operations of our own minds, by reflection; or by our senses, from exterior things, to that vastness, to which infinity can extend them.

§35. For it is infinity, which, joined to our ideas of existence, power, knowledge, *etc.* makes that complex idea, whereby we represent to ourselves the best we can, the supreme Being. For though in his own essence, (which certainly we do not know, not knowing the real essence of a pebble, or a fly, or of our own selves,) God be simple and uncompounded; yet, I think, I may say we have no other idea of him, but a complex one of existence, knowledge, power, happiness, *etc.* infinite and eternal: which are all distinct ideas, and some of them being relative, are again compounded of others; all which being, as has been shown, originally got from *sensation* and *reflection*, go to make up the idea or notion we have of God.

No ideas in our complex one of spirits, but those got from sensation or reflection

§36. This further is to be observed, that there is no idea we attribute to God, bating[22] infinity, which is not also a part of our complex idea of other spirits. Because, being capable of no other simple ideas, belonging to anything but body, but those which by reflection we receive from the operation of our own minds, we can attribute to spirits no other, but what we receive from thence: and all the difference we can put between them in our contemplation of spirits, is only in the several extents and degrees of their knowledge, power, duration, happiness, *etc.* For that in our ideas, as well *of spirits*, as of other things, we are *restrained to those we receive from sensation and reflection*, is evident from hence, that in our ideas of spirits, how much soever advanced in perfection, beyond those of bodies, even to that of infinite, we cannot yet have any idea of the manner, wherein they discover their thoughts one to another: Though we must necessarily conclude, that separate spirits, which are beings that have perfecter knowledge, and greater happiness than we, must needs have also a perfecter way of communicating their thoughts, than we have, who are fain[23] to make use of corporeal signs, and particular sounds, which are therefore of most general use, as being the best, and quickest we are capable of. But of immediate communication, having no experiment in ourselves, and consequently, no notion of it at all,

we have no idea, how spirits, which use not words, can with quickness; or much less, how spirits that have no bodies, can be masters of their own thoughts, and communicate or conceal them at pleasure, though we cannot but necessarily suppose they have such a power.

Recapitulation §37. And thus we have seen, *what kind of ideas we have of substances of all kinds*, wherein they consist, and how we come by them. From whence, I think, it is very evident,

First, that all our ideas of the several sorts of substances, are nothing but collections of simple ideas, with a supposition of something, to which they belong, and in which they subsist; though of this supposed something, we have no clear distinct idea at all.

Secondly, that all the simple ideas, that thus united in one common *substratum*, make up our complex ideas of the several sorts of substances, are no other but such as we have received from *sensation* or *reflection*. So that even in those, which we think we are most intimately acquainted with, and come nearest the comprehension of our most enlarged conceptions, cannot reach beyond those simple ideas. And even in those, which seem most remote from all we have to do with, and do infinitely surpass anything we can perceive in ourselves by *reflection*, or discover by *sensation* in other things, we can attain to nothing, but those simple ideas, which we originally received from *sensation* or *reflection*, as is evident in the complex ideas we have of angels, and particularly of God himself.

Thirdly, that most of the simple ideas, that make up our complex ideas of substances, when truly considered, are only powers, however we are apt to take them for positive qualities; *v.g.* the greatest part of the ideas, that make our complex idea of *gold*, are yellowness, great weight, ductility, fusibility, and solubility, in *aqua regia*, *etc.* all united together in an unknown *substratum*; all which ideas are nothing else but so many relations to other substances, and are not really in the gold, considered barely in itself, though they depend on those real, and primary qualities of its internal constitution, whereby it has a fitness, differently to operate, and be operated on by several other substances.

CHAPTER XXIV

Of Collective Ideas of Substances

One idea

§1. Besides these complex ideas of several single substances, as of man, horse, gold, violet, apple, *etc.* the mind hath also *complex collective* ideas of substances; which I so call, because such ideas are made up of many particular substances considered together, as united into one idea, and which so joined, are looked on as one; *v.g.* the idea of such a collection of men as make an army, though consisting of a great number of distinct substances, is as much one idea, as the idea of a man: and the great collective idea of all bodies whatsoever signified by the name world, is as much one idea, as the idea of any the least particle of matter in it; it sufficing to the unity of any idea, that it be considered as one representation, or picture, though made up of never so many particulars.

Made by the power of composing in the mind

§2. These collective ideas of substances, the mind makes by its power of composition, and uniting severally, either simple or complex ideas into one, as it does by the same faculty make the complex ideas of particular substances, consisting of an aggregate of divers simple ideas, united in one substance: and as the mind, by putting together the repeated ideas of unity, makes the collective mode, or complex idea of any number, as a score, or a gross, *etc.* So by putting together several particular substances, it makes collective ideas of substances, as a troop, an army, a swarm, a city, a fleet; each of which, everyone finds, that he represents to his own mind, by one idea, in one view; and so under that notion considers those several things as perfectly one, as one ship, or one atom. Nor is it harder to conceive, how an army of ten thousand men should make one idea, than how a man should make one idea; it being as easy to the mind, to unite into one the idea of a great number of men, and consider it as one; as it is to unite into one particular, all the distinct ideas, that make up the composition of a man, and consider them altogether as one.

All artificial things are collective ideas

§3. Amongst such kind of collective ideas, are to be counted most part of artificial things, at least such of them as are made up of distinct substances: and, in truth, if we consider all these collective ideas aright, as *army*, *constellation*, *universe*, as they are united into

so many single ideas, they are but the artificial draughts of the mind, bringing things very remote, and independent on one another, into one view, the better to contemplate, and discourse of them, united into one conception, and signified by one name. For there are no things so remote, nor so contrary, which the mind cannot, by this art of composition, bring into one idea, as is visible in that signified by the name *universe*.

CHAPTER XXV

Of Relation

Relation what §1. Besides the ideas, whether simple or complex, that the mind has of things, as they are in themselves, there are others it gets from their comparison one with another. The understanding, in the consideration of anything, is not confined to that precise object: it can carry any idea, as it were, beyond itself, or, at least, look beyond it, to see how it stands in conformity to any other. When the mind so considers one thing, that it does, as it were, bring it to, and set it by another, and carry its view from one to the other: this is, as the words import, *relation* and *respect*; and the denominations given to positive things, intimating that respect, and serving as marks to lead the thoughts beyond the subject itself denominated, to something distinct from it, are what we call *relatives*; and the things so brought together, *related*. Thus, when the mind considers Cajus, as such a positive being, it takes nothing into that idea, but what really exists in Cajus; *v.g.* when I consider him, as a man, I have nothing in my mind, but the complex idea of the species, man. So likewise, when I say Cajus is a white man, I have nothing but the bare consideration of man, who hath that white colour. But when I give Cajus the name *husband*, I intimate some other person: and when I give him the name *whiter*, I intimate some other thing: in both cases my thought is led to something beyond Cajus, and there are two things brought into consideration. And since any idea, whether simple, or complex, may be the occasion why the mind thus brings two things together, and, as it were, takes a view of them at once, though still considered as distinct; therefore any of our ideas may be the foundation of relation. As in the above-mentioned instance, the contract and ceremony

of marriage with Sempronia, is the occasion of the denomination or relation of husband; and the colour white, the occasion why he is said whiter than freestone.[1]

Relations without correlative terms, not easily perceived

§2. These, and the like *relations, expressed by relative terms, that have others answering them, with a reciprocal intimation*, as father and son, bigger and less, cause and effect, *are very obvious* to everyone, and everybody, at first sight, perceives the relation. For father and son, husband and wife, and such other correlative terms, seem so nearly to belong one to another, and, through custom, do so readily chime, and answer one another in people's memories, that upon the naming of either of them, the thoughts are presently carried beyond the thing so named; and nobody overlooks, or doubts of a relation, where it is so plainly intimated. But where languages have failed to give correlative names, there the relation is not always so easily taken notice of. *Concubine* is, no doubt, a relative name, as well as wife: but in languages where this, and the like words, have not a correlative term, there people are not so apt to take them to be so, as wanting that evident mark of relation, which is between correlatives, which seem to explain one another, and not to be able to exist, but together. Hence it is, that many of those names, which duly considered, do include evident relations, have been called external denominations. But all names, that are more than empty sounds, must signify some idea, which is either in the thing to which the name is applied; and then it is positive, and is looked on as united to, and existing in the thing to which the denomination is given: or else it arises from the respect the mind finds in it, to something distinct from it, with which it considers it; and then it includes a relation.

Some seemingly absolute terms contain relations

§3. Another sort of *relative terms* there is, which are not looked on to be either relative, or so much as external denominations; *which* yet, under the form and appearance of signifying something absolute in the subject, do conceal a tacit, though less observable relation. Such are the *seemingly positive* terms of *old, great, imperfect, etc.* whereof I shall have occasion to speak more at large in the following chapters.

Relation different from the things related

§4. This further may be observed, that the ideas of relation, may be the same in men, who have far different ideas of the things that are related, or that are thus compared; *v.g.* those who have far different ideas of a *man*, may yet agree in the notion of a *father*: which is a notion superinduced to the substance, or man, and refers only

to an act of that thing called man; whereby he contributed to the generation of one of his own kind, let man be what it will.

Change of relation may be without any change in the subject

§5. *The nature* therefore *of relation*, consists in the referring or comparing two things one to another; from which comparison, one or both comes to be denominated. And if either of those things be removed, or cease to be, the relation ceases, and the denomination consequent to it, though the other receive in itself no alteration at all. *V.g.* Cajus, whom I consider today as a father, ceases to be so tomorrow, only by the death of his son, without any alteration made in himself. Nay, barely by the mind's changing the object, to which it compares anything, the same thing is capable of having contrary denominations, at the same time. *V.g.* Cajus, compared to several persons, may truly be said to be older and younger, stronger and weaker, *etc.*

Relation only betwixt two things

§6. Whatsoever doth, or can exist, or be considered as one thing, is positive; and so not only simple ideas, and substances, but modes also are positive beings; though the parts, of which they consist, are very often relative one to another; but the whole together considered as one thing, and producing in us the complex idea of one thing; which idea is in our minds, as one picture, though an aggregate of divers parts; and under one name, it is a positive or absolute thing, or idea. Thus a triangle, though the parts thereof, compared one to another, be *relative*, yet the idea of the whole is a positive absolute idea. The same may be said of a family, a tune, *etc.* for there can be no relation, but betwixt two things, considered as two things. There must always be in relation two ideas, or things, either in themselves really separate, or considered as distinct, and then a ground or occasion for their comparison.

All things capable of relation

§7. Concerning relation in general, these things may be considered:

First, that there is *no one thing*, whether simple idea, substance, mode, or relation, or name of either of them, *which is not capable of almost an infinite number of* considerations, in reference to other things; and therefore this makes no small part of men's thoughts and words. *V.g.* one single man may at once be concerned in, and sustain all these following *relations*, and many more, *viz.* father, brother, son, grandfather, grandson, father-in-law, son-in-law, husband, friend, enemy, subject, general, judge, patron, client, professor, European, Englishman, islander, servant, master, possessor, captain, superior, inferior, bigger, less, older, younger, contemporary, like, unlike, *etc.* to an almost infinite number: he being capable of as many

relations, as there can be occasions of comparing him to other things, in any manner of agreement, disagreement, or respect whatsoever: for, as I said, *relation* is a way of comparing, or considering two things together; and giving one, or both of them, some appellation from that comparison, and sometimes giving even the relation itself a name.

The ideas of relations clearer often, than of the subjects related

§8. *Secondly*, this further may be considered concerning *relation*, that though it be not contained in the real existence of things, but something extraneous, and superinduced; yet the ideas which relative words stand for, are often clearer, and more distinct, than of those substances to which they do belong. The notion we have of a father, or brother, is a great deal clearer, and more distinct, than that we have of a man: or, if you will, *paternity* is a thing whereof 'tis easier to have a clear idea, than of *humanity*: and I can much easier conceive what a friend is, than what GOD. Because the knowledge of one action, or one simple idea, is oftentimes sufficient to give me the notion of a relation: but to the knowing of any substantial being, an accurate collection of sundry ideas, is necessary. A man, if he compares two things together, can hardly be supposed not to know what it is, wherein he compares them: so that when he compares any things together, he cannot but have a very clear idea of that relation. The ideas then of *relations, are capable* at least *of being more perfect and distinct in our minds, than those of substances.* Because it is commonly hard to know all the simple ideas, which are really in any substance, but for the most part easy enough to know the simple ideas that make up any relation I think on, or have a name for. *V.g.* comparing two men, in reference to one common parent, it is very easy to frame the ideas of brothers, without having yet the perfect idea of a man. For significant relative words, as well as others, standing only for ideas; and those being all either simple, or made up of simple ones, it suffices for the knowing the precise idea the relative term stands for, to have a clear conception of that, which is the foundation of the relation; which may be done without having a perfect and clear idea of the thing it is attributed to. Thus having the notion, that one laid the egg out of which the other was hatched, I have a clear idea of the relation of *dam* and *chick*, between the two cassowaries[2] in St James's Park;[3] though, perhaps, I have but a very obscure and imperfect idea of those birds themselves.

Relations all terminate in simple ideas

§9. *Thirdly*, though there be a great number of considerations, wherein things may be compared one with another, and so a multitude of *relations*; yet they *all terminate in*, and are concerned

about those *simple ideas*, either of sensation or reflection; which I think to be the whole materials of all our knowledge. To clear this, I shall show it in the most considerable relations that we have any notion of; and in some that seem to be the most remote from *sense* or *reflection*: which yet will appear to have their ideas from thence, and leave it past doubt, that the notions we have of them, are but certain simple ideas, and so originally derived from sense or reflection.

Terms leading the mind beyond the subject denominated, are relative

§10. *Fourthly*, that *relation* being the considering of one thing with another, which is extrinsical to it, it is evident, that all words that necessarily lead the mind to any other ideas, than are supposed really to exist in that thing, to which the word is applied, are *relative words. V.g.* a *man black, merry, thoughtful, thirsty, angry, extended*; these, and the like, are all absolute, because they neither signify nor intimate anything, but what does, or is supposed really to exist in the man thus denominated: but *father, brother, king, husband, blacker, merrier, etc.* are words, which, together with the thing they denominate, imply also something else separate, and exterior to the existence of that thing.

Conclusion

§11. Having laid down these premisses concerning *relation* in general, I shall now proceed to show, in some instances, how all the ideas we have of *relation* are made up, as the others are, only of simple ideas; and that they all, how refined, or remote from sense soever they seem, terminate at last in simple ideas. I shall begin with the most comprehensive relation, wherein all things that do, or can exist, are concerned, and that is the relation of *cause* and *effect*. The idea whereof, how derived from the two fountains of all our knowledge, *sensation* and *reflection*, I shall in the next place consider.

CHAPTER XXVI

Of Cause and Effect, and other Relations

Whence their ideas got

§1. In the notice, that our senses take of the constant vicissitude of things, we cannot but observe, that several particular, both qualities and substances, begin to exist; and that they receive this their existence from the due application and operation of some

other being. From this observation, we get our ideas of *cause* and *effect*. That which produces any simple or complex idea, we denote by the general name *cause*; and that which is produced, *effect*. Thus finding, that in that substance which we call wax, fluidity, which is a simple idea, that was not in it before, is constantly produced by the application of a certain degree of heat, we call the simple idea of heat, in relation to fluidity in wax, the cause of it, and fluidity, the effect. So also finding that the substance, wood, which is a certain collection of simple ideas, so called by the application of fire, is turned into another substance, called ashes; *i.e.* another complex idea, consisting of a collection of simple ideas, quite different from that complex idea, which we call wood; we consider fire, in relation to ashes, as cause, and the ashes, as effect. So that whatever is considered by us, to conduce or operate, to the producing any particular simple idea, or collection of simple ideas, whether substance, or mode, which did not before exist, hath thereby in our minds the relation of a cause, and so is denominated by us.

Creation, generation, making alteration

§2. Having thus, from what our senses are able to discover, in the operations of bodies on one another, got the notion of *cause* and *effect*; *viz.* that a *cause* is that which makes any other thing, either simple idea, substance, or mode, begin to be; and an *effect* is that, which had its beginning from some other thing. The mind finds no great difficulty, to distinguish the several originals of things into two sorts.

First, when the thing is wholly made new, so that no part thereof did ever exist before; as when a new particle of matter doth begin to exist, *in rerum natura*,[1] which had before no being, and this we call *creation*.

Secondly, when a thing is made up of particles, which did all of them before exist, but that very thing so constituted of pre-existing particles, which considered altogether, make up such a collection of simple ideas, had not any *existence* before, as this man, this egg, rose, or cherry, *etc.* And this, when referred to a substance, produced in the ordinary course of nature, by an internal principle, but set on work by, and received from some external agent, or cause, and working by insensible ways, which we perceive not, we call *generation*; when the cause is extrinsical, and the effect produced by a sensible separation, or juxtaposition of discernible parts, we call it *making*; and such are all artificial things. When any simple idea is produced, which was not in that subject before, we call it *alteration*. Thus a man is generated, a picture made, and either of them altered, when any new sensible quality, or simple idea, is produced in either of them, which

was not there before; and the things thus made to exist, which were not there before, are *effects*; and those things, which operated to the existence, *causes*. In which, and all other cases, we may observe, that the notion of *cause* and *effect*, has its rise from ideas, received by sensation or reflection; and that this relation, how comprehensive soever, terminates at last in them. For to have the idea of *cause* and *effect*, it suffices to consider any simple idea, or substance, as beginning to exist, by the operation of some other, without knowing the manner of that operation.

Relations of time §3. *Time* and *place* are also the foundations of very large relations, and all finite beings at least are concerned in them. But having already shown in another place, how we get these ideas, it may suffice here to intimate, that most of the denominations of things, received from time, are only relations: thus, when anyone says, that Queen Elizabeth[2] lived sixty-nine, and reigned forty-five years, these words import only the relation of that duration to some other, and means no more but this, that the duration of her existence was equal to sixty-nine, and the duration of her government to forty-five annual revolutions of the Sun; and so are all words, answering, *how long*. Again, William the Conqueror invaded England about the year 1070, which means this; that taking the duration from our Saviour's time, till now, for one entire great length of time, it shows at what distance this invasion was from the two extremes: and so do all words of time, answering to the question *when*, which show only the distance of any point of time, from the period of a longer duration, from which we measure, and to which we thereby consider it, as related.

§4. There are yet, besides those, other words of time, that ordinarily are thought to stand for positive ideas, which yet will, when considered, be found to be relative, such as are *young*, *old*, *etc.* which include and intimate the relation anything has to a certain length of duration, whereof we have the idea in our minds. Thus having settled in our thoughts the idea of the ordinary duration of a man to be seventy years, when we say a man is *young*, we mean, that his age is yet but a small part of that which usually men attain to: and when we denominate him *old*, we mean, that his duration is run out almost to the end of that which men do not usually exceed. And so 'tis but comparing the particular age, or duration of this or that man, to the idea of that duration which we have in our minds, as ordinarily belonging to that sort of animals: which is plain, in the application of these names to other things; for a man is called young at twenty years, and very young at seven years old: but yet a horse we call old at twenty, and a dog at seven

years; because in each of these, we compare their age to different ideas of duration, which are settled in our minds, as belonging to these several sorts of animals, in the ordinary course of nature. But the Sun, and stars, though they have out-lasted several generations of men, we call not old, because we do not know what period GOD hath set to that sort of beings. This term belonging properly to those things, which we can observe in the ordinary course of things, by a natural decay, to come to an end in a certain period of time; and so have in our minds, as it were, a standard, to which we can compare the several parts of their duration; and by the relation they bear thereunto, call them young, or old; which we cannot therefore do to a ruby, or a diamond, things whose usual periods we know not.

Relations of place and extension

§5. The *relation* also that things have to one another, in their *places* and distances, is very obvious to observe; as above, below, a mile distant from Charing Cross,[3] in England, and in London. But as in duration, so in *extension* and bulk, there are some ideas that are relative, which we signify by names that are thought positive; as *great and little, are* truly *relations*. For here also having, by observation, settled in our minds the ideas of the bigness of several species of things, from those we have been most accustomed to, we make them, as it were, the standards whereby to denominate the bulk of others. Thus we call a great apple, such a one as is bigger than the ordinary sort of those we have been used to; and a little horse, such a one as comes not up to the size of that idea, which we have in our minds, to belong ordinarily to horses: and that will be a great horse to a Welshman, which is but a little one to a Fleming;[4] they two having, from the different breed of their countries, taken several sized ideas to which they compare, and in relation to which they denominate their great, and their little.

Absolute terms often stand for relations

§6. So likewise *weak and strong, are* but *relative denominations* of power, compared to some ideas we have, at that time, of greater or less power. Thus when we say a weak man, we mean one that has not so much strength or power to move, as usually men have, or usually those of his size have; which is a comparing his strength to the idea we have of the usual strength of men, or men of such a size. The like when we say the creatures are all weak things; weak, there, is but a relative term, signifying the disproportion there is in the power of GOD, and the creatures. And so abundance of words, in ordinary speech, stand only for relations, (and, perhaps, the greatest part,) which at first sight, seem to have no such signification: *v.g.* the ship has necessary stores. *Necessary*, and *stores*, are both

relative words; one having a relation to the accomplishing the voyage intended, and the other to future use. All which relations, how they are confined to, and terminate in ideas derived from *sensation* or *reflection*, is too obvious to need any explication.

CHAPTER XXVII

Of Identity and Diversity

Wherein identity consists

§1. Another occasion the mind often takes of comparing, is, the very being of things, when considering anything as existing at any determined time and place, we compare it with itself existing at another time, and thereon form the ideas of *identity* and *diversity*. When we see anything to be in any place in any instant of time, we are sure, (be it what it will) that it is that very thing, and not another, which at that same time exists in another place, how like and undistinguishable soever it may be in all other respects: and in this consists *identity*, when the ideas it is attributed to, vary not at all from what they were that moment, wherein we consider their former existence, and to which we compare the present. For we never finding, nor conceiving it possible, that two things of the same kind should exist in the same place at the same time, we rightly conclude, that whatever exists anywhere at any time, excludes all of the same kind, and is there itself alone. When therefore we demand, whether anything be the same or no? it refers always to something that existed such a time in such a place, which 'twas certain, at that instant, was the same with itself, and no other: From whence it follows, that one thing cannot have two beginnings of existence, nor two things one beginning, it being impossible for two things of the same kind to be or exist in the same instant, in the very same place or one and the same thing in different places. That therefore that had one beginning, is the same thing, and that which had a different beginning in time and place from that, is not the same, but divers. That which has made the difficulty about this relation, has been the little care and attention used in having precise notions of the things to which it is attributed.

Identity of substances

§2. We have the ideas but of three sorts of substances; 1. God. 2. Finite intelligences. 3. *Bodies*. First, God is without beginning,

eternal, unalterable, and everywhere; and therefore concerning his identity, there can be no doubt. Secondly, finite spirits having had each its determinate time and place of beginning to exist, the relation to that time and place will always determine to each of them its identity, as long as it exists.

Thirdly, the same will hold of every particle of matter, to which no addition or subtraction of matter being made, it is the same. For though these three sorts of substances, as we term them, do not exclude one another out of the same place; yet we cannot conceive but that they must necessarily each of them exclude any of the same kind out of the same place: or else the notions and names of identity and diversity would be in vain, and there could be no such distinction of substances, or anything else one from another. For example; could two bodies be in the same place at the same time, then those two parcels of matter must be one and the same, take them great or little; nay, all bodies must be one and the same. For by the same reason that two particles of matter may be in one place, all bodies may be in one place: which, when it can be supposed, takes away the distinction of identity and diversity of one and more, and renders it ridiculous. But it being a contradiction, that two or more should be one, identity and diversity are relations and ways of comparing well founded, and of use to the understanding. All other things being but modes or relations ultimately terminated in substances, the identity and diversity of each particular existence of them too will be by the same way determined: only as to things whose existence is in succession, such as are the actions of finite beings, *v.g. motion* and *thought*, both which consist in a continued train of succession, concerning their diversity, there can be no question: because each perishing the moment it begins, they cannot exist in different times, or in different places, as permanent beings can at different times exist in distant places; and therefore no motion or thought, considered as at different times, can be the same, each part thereof having a different beginning of existence.

Identity of modes

§3. From what has been said, 'tis easy to discover what is so much inquired after, the *principium individuationis*,[1] and that 'tis plain is existence itself, which determines a being of any sort to a particular time and place incommunicable to two beings of the same kind. This, though it seems easier to conceive in simple substances or modes, yet when reflected on, is not more difficult in compounded ones, if care be taken to what it is applied; *v.g.* let us suppose an atom, *i.e.* a continued body under one immutable superficies, existing in a determined time and place; 'tis

Principium individuationis

evident, that, considered in any instant of its existence, it is, in that instant, the same with itself. For being at that instant what it is, and nothing else, it is the same, and so must continue as long as its existence is continued; for so long it will be the same, and no other. In like manner, if two or more atoms be joined together into the same mass, every one of those atoms will be the same, by the foregoing rule: and whilst they exist united together, the mass, consisting of the same atoms, must be the same mass, or the same body, let the parts be never so differently jumbled: but if one of these atoms be taken away, or one new one added, it is no longer the same mass, or the same body. In the state of living creatures, their identity depends not on a mass of the same particles, but on something else. For in them the variation of great parcels of matter alters not the identity: an oak growing from a plant to a great tree, and then lopped, is still the same oak: and a colt grown up to a horse, sometimes fat, sometimes lean, is all the while the same horse; though, in both these cases, there may be a manifest change of the parts: so that truly they are not either of them the same masses of matter, though they be truly one of them the same oak, and the other the same horse. The reason whereof is, that in these two cases of a mass of matter, and a living body, *identity* is not applied to the same thing.

Identity of vegetables

§4. We must therefore consider wherein an oak differs from a mass of matter, and that seems to me to be in this; that the one is only the cohesion of particles of matter anyhow united, the other such a disposition of them as constitutes the parts of an oak; and such an organization of those parts, as is fit to receive, and distribute nourishment, so as to continue, and frame the wood, bark, and leaves, *etc.* of an oak, in which consists the vegetable life. That being then one plant, which has such an organization of parts in one coherent body, partaking of one common life, it continues to be the same plant, as long as it partakes of the same life, though that life be communicated to new particles of matter vitally united to the living plant, in a like continued organization, conformable to that sort of plants. For this organization being at any one instant in any one collection of *matter*, is in that particular concrete distinguished from all other, and is that individual life, which existing constantly from that moment both forwards and backwards, in the same continuity of insensibly succeeding parts united to the living body of the plant, it has that identity, which makes the same plant, and all the parts of it, parts of the same plant, during all the time that they exist united in that continued organization, which is fit to convey that common life to all the parts so united.

§5. The case is not so much different in *brutes*, but that anyone may hence see what makes an animal, and continues it the same. Something we have like this in machines, and may serve to illustrate it. For example, what is a watch? 'Tis plain 'tis nothing but a fit organization, or construction of parts, to a certain end, which, when a sufficient force is added to it, it is capable to attain. If we would suppose this machine one continued body, all whose organized parts were repaired, increased or diminished, by a constant addition or separation of insensible parts, with one common life, we should have something very much like the body of an animal, with this difference, that in an animal the fitness of the organization, and the motion wherein life consists, begin together, the motion coming from within; but in machines, the force, coming sensibly from without, is often away when the organ is in order, and well fitted to receive it. *Identity of animals*

§6. This also shows wherein the identity of the same *man* consists; *viz.* in nothing but a participation of the same continued life, by constantly fleeting particles of matter, in succession vitally united to the same organized body. He that shall place the *identity* of man in anything else, but like that of other animals in one fitly organized body, taken in any one instant, and from thence continued under one organization of life in several successively fleeting particles of matter, united to it, will find it hard, to make an *embryo*, one of years, mad, and sober, the same man, by any supposition, that will not make it possible for Seth, Ismael, Socrates, Pilate, St Austin, and Cæsar Borgia,[2] to be the same man. For if the *identity* of soul alone makes the same man, and there be nothing in the nature of matter, why the same individual spirit may not be united to different bodies, it will be possible, that those men, living in distant ages, and of different tempers, may have been the same man: which way of speaking must be, from a very strange use of the word *man*, applied to an idea, out of which body and shape is excluded: and that way of speaking would agree yet worse with the notions of those philosophers,[3] who allow of transmigration, and are of opinion that the souls of men may, for their miscarriages, be detruded into the bodies of beasts, as fit habitations, with organs suited to the satisfaction of their brutal inclinations. But yet, I think, nobody, could he be sure that the soul of Heliogabalus were in one of his hogs, would yet say that hog were a *man* or Heliogabalus.[4] *Identity of man*

§7. 'Tis not therefore unity of substance that comprehends all sorts of *identity*, or will determine it in every case: but to conceive, *Identity suited to the idea*

and judge of it aright, we must consider what idea the word it is applied to, stands for: it being one thing to be the same *substance*, another the same *man*, and a third the same *person*, if *person*, *man*, and *substance*, are three names standing for three different *ideas*; for such as is the idea belonging to that name, such must be the *identity*: which, if it had been a little more carefully attended to, would possibly have prevented a great deal of that confusion, which often occurs about this matter, with no small seeming difficulties, especially concerning *personal identity*, which therefore we shall in the next place a little consider.

Same man §8. An animal is a living organized body; and consequently, the same animal, as we have observed, is the same continued life communicated to different particles of matter, as they happen successively to be united to that organised living body. And whatever is talked of other definitions, ingenuous observation puts it past doubt, that the idea in our minds, of which the sound *man* in our mouths is the sign, is nothing else but of an animal of such a certain form: since I think I may be confident, that whoever should see a creature of his own shape and make, though it had no more reason all its life, than a *cat* or a *parrot*, would call him still a *man*; or whoever should hear a *cat* or a *parrot* discourse, reason, and philosophise, would call or think it nothing but a *cat* or a *parrot*; and say, the one was a dull irrational *man*, and the other a very intelligent rational *parrot*. A relation we have in an author of great note,[5] is sufficient to countenance the supposition of a rational *parrot*. His words* are,

'I had a mind to know from Prince Maurice's own mouth, the account of a common, but much credited story, that I had heard so often from many others of an old parrot he had in Brazil, during his government there, that spoke, and asked, and answered common questions like a reasonable creature; so that those of his train there, generally concluded it to be witchery or possession; and one of his chaplains, who lived long afterwards in Holland, would never from that time endure a parrot, but said, they all had a devil in them. I had heard many particulars of this story, and assevered by people hard to be discredited, which made me ask Prince Maurice what there was of it. He said, with his usual plainness and dryness in talk, there was something true, but a great deal false of what had been reported. I desired to know of him, what there was of the first? He told me short and coldly, that he had heard of such an old parrot when he came to Brazil;

*Memoires of what passed in *Christendom*, from 1672 to 1679, p. $\frac{57}{392}$.

and though he believed nothing of it, and 'twas a good way off, yet he had so much curiosity as to send for it, that 'twas a very great and a very old one; and when it came first into the room where the Prince was, with a great many Dutchmen about him, it said presently, "what a company of white men are here?" They asked it what he thought that man was, pointing at the Prince? It answered, "some general or other"; when they brought it close to him, he asked it, "D'où venez-vous?" it answered, "De Marinnan." The Prince, "A qui êtes-vous?" The parrot, "A un Portugais." Prince, "Que fais-tu là?" Parrot, "Je garde les poules." The Prince laughed, and said, "Vous gardez les poules?" The parrot answered, "Oui, moi et je sais bien faire"; and made the chuck four or five times that people use to make to chickens when they call them.* I set down the words of this worthy dialogue in French, just as Prince Maurice said them to me. I asked him in what language the parrot spoke, and he said, in Brazilian. I asked whether he understood Brazilian, he said No, but he had taken care to have two interpreters by him, the one a Dutchman, that spoke Brazilian, and the other a Brazilian, that spoke Dutch; that he asked them separately and privately, and both of them agreed in telling him just the same thing that the parrot said. I could not but tell this odd story, because it is so much out of the way, and from the first hand, and what may pass for a good one; for I dare say this Prince, at least, believed himself in all he told me, having ever passed for a very honest and pious man; I leave it to naturalists[6] to reason, and to other men to believe as they please upon it; however, it is not perhaps amiss to relieve or enliven a busy scene sometimes with such digressions, whether to the purpose or no.'

I have taken care that the reader should have the story at large in the author's own words, because he seems to me not to have thought it incredible; for it cannot be imagined that so able a man as he, who had sufficiency enough to warrant all the testimonies he gives of himself, should taken so much pains, in a place where it had nothing to do, to pin so close not only on a man whom he mentions as his friend, but on a Prince, in whom he acknowledges very great honesty and piety, a story, which if he himself thought incredible, he could not but also think ridiculous. The Prince, 'tis plain, who vouches this story, and our author, who relates it

*'Whence come ye?' It answered, 'From Marinnan.' The Prince, 'To whom do you belong?' The parrot, 'To a Portuguese.' Prince, 'What do you there?' Parrot, 'I look after the chickens.' The Prince laughed and said, 'You look after the chickens?' The parrot answered, 'Yes I, and I know well enough how to do it.'

from him, both of them call this talker a parrot; and I ask anyone else, who thinks such a story fit to be told, whether if this parrot, and all of its kind, had always talked, as we have a Prince's word for it, this one did, whether, I say, they would not have passed for a race of *rational animals*; but yet whether for all that, they would have been allowed to be men, and not *parrots*? For I presume 'tis not the idea of a thinking or rational being alone, that makes the idea of a *man* in most people's sense; but of a body, so and so shaped, joined to it; and if that be the idea of a *man*, the same successive body not shifted all at once, must, as well as the same immaterial spirit, go to the making of the same *man*.

Personal identity

§9. This being premised to find wherein *personal identity* consists, we must consider what *person* stands for; which, I think, is a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing in different times and places; which it does only by that consciousness, which is inseparable from thinking, and as it seems to me essential to it: it being impossible for anyone to perceive, without perceiving that he does perceive. When we see, hear, smell, taste, feel, meditate, or will anything, we know that we do so. Thus it is always as to our present sensations and perceptions: and by this everyone is to himself that which he calls *self*; it not being considered in this case, whether the same *self* be continued in the same, or divers substances. For since consciousness always accompanies thinking, and 'tis that that makes everyone to be what he calls *self*; and thereby distinguishes himself from all other thinking things; in this alone consists *personal identity*, *i.e.* the sameness of a rational being: and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that *person*; it is the same *self* now it was then; and 'tis by the same *self* with this present one that now reflects on it, that that action was done.

Consciousness makes personal identity

§10. But it is further inquired, whether it be the same identical substance? This, few would think they had reason to doubt of, if these perceptions, with their consciousness, always remained present in the mind, whereby the same thinking thing would be always consciously present, and, as would be thought, evidently the same to itself. But that which seems to make the difficulty, is this, that this consciousness being interrupted always by forgetfulness, there being no moment of our lives wherein we have the whole train of all our past actions before our eyes in one view: but even the best memories losing the sight of one part whilst they are viewing another; and we sometimes, and that the greatest

part of our lives, not reflecting on our past selves, being intent on our present thoughts, and in sound sleep, having no thoughts at all, or, at least, none with that consciousness which remarks our waking thoughts. I say, in all these cases, our consciousness being interrupted, and we losing the sight of our past *selves*, doubts are raised whether we are the same thinking thing; *i.e.* the same substance, or no. Which, however reasonable, or unreasonable, concerns not *personal identity* at all. The question being, what makes the same *person*, and not whether it be the same identical substance, which always thinks in the same *person*, which in this case matters not at all. Different substances, by the same consciousness, (where they do partake in it) being united into one person, as well as different bodies, by the same life are united into one animal, whose *identity* is preserved, in that change of substances, by the unity of one continued life. For it being the same consciousness that makes a man be himself to himself, *personal identity* depends on that only, whether it be annexed only to one individual substance, or can be continued in a succession of several substances. For as far as any intelligent being can repeat the idea of any past action with the same consciousness it had of it at first, and with the same consciousness it has of any present action; so far it is the same *personal self*. For it is by the consciousness it has of its present thoughts and actions, that it is *self* to *itself* now, and so will be the same *self*, as far as the same consciousness can extend to actions past or to come; and would be by distance of time, or change of substance, no more two *persons* than a man be two men, by wearing other clothes today than he did yesterday, with a long or short sleep between: the same consciousness uniting those distant actions into the same *person*, whatever substances contributed to their production.

Personal identity in change of substances

§11. That this is so, we have some kind of evidence in our very bodies, all whose particles, whilst vitally united to this same thinking conscious self, so that we feel when they are touched, and are affected by, and conscious of good or harm that happens to them, are a part of our*selves*; *i.e.* of our thinking conscious *self*. Thus the limbs of his body is to everyone a part of *himself*: he sympathises and is concerned for them. Cut off an hand, and thereby separate it from that consciousness we had of its heat, cold, and other affections, and it is then no longer a part of that which is *himself*, any more than the remotest part of matter. Thus we see the *substance*, whereof *personal self* consisted at one time, may be varied at another, without the change of personal *identity*; there being no question

about the same person, though the limbs, which but now were a part of it, be cut off.

Whether in the change of thinking substances

§12. But the question is, whether if the same substance, which thinks, be changed, it can be the same person, or remaining the same, it can be different persons.

And to this I answer, first, this can be no question at all to those, who place thought in a purely material, animal constitution,[7] void of an immaterial substance. For, whether their supposition be true or no, 'tis plain they conceive personal identity preserved in something else than identity of substance; as animal identity is preserved in identity of life, and not of substance. And therefore those, who place thinking in an immaterial substance only, before they can come to deal with these men, must show why personal identity cannot be preserved in the change of immaterial substances, or variety of particular immaterial substances, as well as animal identity is preserved in the change of material substances, or variety of particular bodies: unless they will say, 'tis one immaterial spirit that makes the same life in brutes; as it is one immaterial spirit that makes the same person in men, which the Cartesians at least will not admit, for fear of making brutes thinking things too.[8]

§13. But next, as to the first part of the question, whether if the same thinking substance (supposing immaterial substances only to think) be changed, it can be the same person? I answer, that cannot be resolved, but by those who know what kind of substances they are that do think; and whether the consciousness of past actions can be transferred from one thinking substance to another. I grant, were the same consciousness the same individual action, it could not: but it being but a present representation of a past action, why it may not be possible, that that may be represented to the mind to have been, which really never was, will remain to be shown. And therefore how far the consciousness of past actions is annexed to any individual agent, so that another cannot possibly have it, will be hard for us to determine, till we know what kind of action it is; that cannot be done without a reflex act of perception accompanying it, and how performed by thinking substances, who cannot think without being conscious of it. But that which we call the *same consciousness*, not being the same individual act, why one intellectual substance may not have represented to it, as done by itself, what it never did, and was perhaps done by some other agent; why, I say, such a representation may not possibly be without reality of matter of fact, as well as several representations in dreams are, which yet, whilst

dreaming, we take for true, will be difficult to conclude from the nature of things. And that it never is so, will by us, till we have clearer views of the nature of thinking substances, be best resolved into the goodness of God, who, as far as the happiness or misery of any of his sensible creatures is concerned in it, will not by a fatal error of theirs transfer from one to another that consciousness which draws reward or punishment with it. How far this may be an argument against those who would place thinking in a system of fleeting animal spirits,[9] I leave to be considered. But yet to return to the question before us, it must be allowed, that if the same consciousness (which, as has been shown, is quite a different thing from the same numerical figure or motion in body) can be transferred from one thinking substance to another, it will be possible, that two thinking substances may make but one person. For the same consciousness being preserved, whether in the same or different substances, the personal identity is preserved?

§14. As to the second part of the question, whether the same immaterial substance remaining, there may be two distinct persons? Which question seems to me to be built on this, whether the same immaterial being, being conscious of the actions of its past duration, may be wholly stripped of all the consciousness of its past existence, and lose it beyond the power of ever retrieving again: and so as it were beginning a new account from a new period, have a consciousness that cannot reach beyond this new state. All those who hold pre-existence,[10] are evidently of this mind, since they allow the soul to have no remaining consciousness of what it did in that pre-existent state, either wholly separate from body, or informing any other body; and if they should not, 'tis plain, experience would be against them. So that personal identity reaching no further than consciousness reaches, a pre-existent spirit not having continued so many ages in a state of silence, must needs make different persons. Suppose a Christian Platonist[11] or Pythagorean, should, upon God's having ended all his works of creation the seventh day, think his soul hath existed ever since; and should imagine it has revolved in several human bodies, as I once met with one, who was persuaded his had been the soul of Socrates, (how reasonably I will not dispute. This I know, that in the post he filled, which was no inconsiderable one, he passed for a very rational man; and the press has shown that he wanted not parts or learning) would anyone say, that he being not conscious of any of Socrates's actions or thoughts, could be the same person with Socrates? Let anyone reflect upon himself, and conclude, that he has in

himself an immaterial spirit, which is that which thinks in him, and in the constant change of his body keeps him the same; and is that which he calls himself: let him also suppose it to be the same soul that was in Nestor or Thersites, at the siege of Troy,[12] (for souls being, as far as we know anything of them in their nature, indifferent to any parcel of matter, the supposition has no apparent absurdity in it) which it may have been, as well as it is now, the soul of any other man: but he now having no consciousness of any of the actions either of Nestor or Thersites, does, or can he, conceive himself the same person with either of them? Can he be concerned in either of their actions? Attribute them to himself, or think them his own more than the actions of any other man that ever existed? So that this consciousness not reaching to any of the actions of either of those men, he is no more one *self* with either of them, than if the soul or immaterial spirit that now informs him, had been created, and began to exist, when it began to inform his present body, though it were never so true, that the same spirit that informed Nestor's or Thersites's body, were numerically the same that now informs his. For this would no more make him the same person with Nestor, than if some of the particles of matter that were once a part of Nestor, were now a part of this man; the same immaterial substance, without the same consciousness, no more making the same person by being united to any body, than the same particle of matter, without consciousness united to any body, makes the same person. But let him once find himself conscious of any of the actions of Nestor, he then finds himself the same person with Nestor.

§15. And thus we may be able, without any difficulty, to conceive the same person at the resurrection, though in a body not exactly in make or parts the same which he had here, the same consciousness going along with the soul that inhabits it. But yet the soul alone, in the change of bodies, would scarce to anyone, but to him that makes the soul the *man*, be enough to make the same *man*. For should the soul of a prince, carrying with it the consciousness of the prince's past life, enter and inform the body of a cobbler, as soon as deserted by his own soul, everyone sees he would be the same person with the prince, accountable only for the prince's actions: but who would say it was the same man? The body too goes to the making the man, and would, I guess, to everybody, determine the man in this case, wherein the soul, with all its princely thoughts about it, would not make another man: but he would be the same cobbler to everyone besides himself. I know that in the ordinary way of speaking, the same person, and the same

man, stand for one and the same thing. And indeed, everyone will always have a liberty to speak, as he pleases, and to apply what articulate sounds to what ideas he thinks fit, and change them as often as he pleases. But yet when we will inquire what makes the same *spirit*, *man*, or *person*, we must fix the ideas of *spirit*, *man*, or *person*, in our minds; and having resolved with ourselves what we mean by them, it will not be hard to determine in either of them, or the like, when it is the *same*, and when not.

Consciousness makes the same person

§16. But though the same immaterial substance or soul, does not alone, wherever it be, and in whatsoever state, make the same man; yet 'tis plain consciousness, as far as ever it can be extended, should it be to ages past, unites existences and actions, very remote in time, into the same person, as well as it does the existence and actions of the immediately preceding moment: so that whatever has the consciousness of present and past actions, is the same person to whom they both belong. Had I the same consciousness, that I saw the Ark and Noah's flood, as that I saw an overflowing of the Thames last winter, or as that I write now, I could no more doubt that I that write this now, that saw the Thames overflowed last winter, and that viewed the flood at the general deluge, was the same *self*, place that *self* in what substance you please, than that I that write this am the same *myself* now whilst I write (whether I consist of all the same substance, material or immaterial, or no) that I was yesterday. For as to this point of being the same *self*, it matters not whether this present *self* be made up of the same or other substances, I being as much concerned, and as justly accountable for any action was done a thousand years since, appropriated to me now by this self-consciousness, as I am for what I did the last moment.

Self depends on consciousness

§17. *Self* is that conscious thinking thing, (whatever substance, made up of whether spiritual, or material, simple, or compounded, it matters not) which is sensible, or conscious of pleasure and pain, capable of happiness or misery, and so is concerned for it*self*, as far as that consciousness extends. Thus everyone finds, that whilst comprehended under that consciousness, the little finger is as much a part of it*self*, as what is most so. Upon separation of this little finger, should this consciousness go along with the little finger, and leave the rest of the body, 'tis evident the little finger would be the *person*, the *same person*; and *self* then would have nothing to do with the rest of the body. As in this case, it is the consciousness that goes along with the substance, when one part is separate from another, which makes the same *person*, and constitutes this inseparable *self*: so it is in

reference to substance remote in time. That with which the *consciousness* of this present thinking thing can join itself, makes the same *person*, and is one *self* with it, and with nothing else; and so attributes to it*self*, and owns all the actions of that thing as its own, as far as that consciousness reaches, and no further; as everyone who reflects will perceive.

Object of reward and punishment

§18. In this *personal identity*, is founded all the right and justice of reward and punishment; happiness and misery being that for which everyone is concerned for *himself*, not mattering what becomes of any substance, not joined to, or affected with that consciousness. For as it is evident in the instance I gave but now, if the consciousness went along with the little finger, when it was cut off, that would be the same *self* which was concerned for the whole body yesterday, as making a part of it*self*, whose actions then it cannot but admit as its own now. Though if the same body should still live, and immediately, from the separation of the little finger, have its own peculiar consciousness, whereof the little finger knew nothing, it would not at all be concerned for it, as a part of it*self*, or could own any of its actions, or have any of them imputed to him.

§19. This may show us wherein *personal identity* consists, not in the identity of substance, but, as I have said, in the identity of *consciousness*, wherein, if Socrates and the present Mayor of Quinborough[13] agree, they are the same person: if the same Socrates, waking and sleeping do not partake of the same *consciousness*, Socrates waking and sleeping, is not the same person. And to punish Socrates waking, for what sleeping Socrates thought, and waking Socrates was never conscious of, would be no more of right, than to punish one twin for what his brother-twin did, whereof he knew nothing, because their outsides were so like, that they could not be distinguished; for such twins have been seen.

§20. But yet possibly it will still be objected, suppose I wholly lose the memory of some parts of my life, beyond a possibility of retrieving them, so that perhaps I shall never be conscious of them again; yet am I not the same person that did those actions, had those thoughts, that I was once conscious of, though I have now forgot them? To which I answer, that we must here take notice what the word *I* is applied to; which, in this case, is the man only. And the same man being presumed to be the same person, *I* is easily here supposed to stand also for the same person. But if it be possible for the same man to have distinct incommunicable consciousness at different times, it is past doubt the same man would at different times

make different persons; which, we see, is the sense of mankind in the solemnest declaration of their opinions, human laws not punishing the *mad man* for the *sober man*'s actions, nor the *sober man* for what the *mad man* did, thereby making them two persons; which is somewhat explained by our way of speaking in English, when we say such an one *is not himself*, or is *besides himself*; in which phrases it is insinuated, as if those who now, or, at least, first used them, thought, that *self* was changed, the *self*same person was no longer in that man.

Difference between identity of man and person

§21. But yet 'tis hard to conceive, that Socrates, the same individual man, should be two persons. To help us a little in this, we must consider what is meant by Socrates, or the same individual *man*.

First, it must be either the same individual, immaterial, thinking substance: in short, the same numerical soul, and nothing else.

Secondly, or the same animal, without any regard to an immaterial soul.

Thirdly, or the same immaterial spirit united to the same animal.

Now, take which of these suppositions you please, it is impossible to make personal identity to consist in anything but consciousness; or reach any further than that does.

For by the first of them, it must be allowed possible, that a man born of different women, and in distant times, may be the same man. A way of speaking, which, whoever admits, must allow it possible, for the same man to be two distinct persons, as any two that have lived in different ages, without the knowledge of one another's thoughts.

By the second and third, Socrates in this life, and after it, cannot be the same man any way, but by the same consciousness; and so making *human identity* to consist in the same thing wherein we place *personal identity*, there will be no difficulty to allow the same man to be the same person. But then they who place *human identity* in consciousness only, and not in something else, must consider how they will make the infant Socrates the same man with Socrates after the resurrection. But whatsoever to some men makes a *man*, and consequently the same individual man, wherein perhaps few are agreed, personal identity can by us be placed in nothing but consciousness, (which is that alone which makes what we call *self*) without involving us in great absurdities.

§22. But is not a man drunk and sober the same person, why else is he punished for the fact he commits when drunk, though he be never afterwards conscious of it? Just as much the same person, as a man that walks, and

does other things in his sleep, is the same person, and is answerable for any mischief he shall do in it. Human laws punish both with a justice suitable to their way of knowledge; because in these cases, they cannot distinguish certainly what is real, what counterfeit; and so the ignorance in drunkenness or sleep, is not admitted as a plea. For though punishment be annexed to personality, and personality to consciousness, and the drunkard perhaps be not conscious of what he did; yet human judicatures justly punish him; because the fact is proved against him, but want of consciousness cannot be proved for him. But in the great day,[14] wherein the secrets of all hearts shall be laid open, it may be reasonable to think, no one shall be made to answer for what he knows nothing of; but shall receive his doom, his conscience accusing or excusing him.

Consciousness alone makes self

§23. Nothing but consciousness can unite remote existences into the same person, the identity of substance will not do it. For whatever substance there is, however framed, without consciousness, there is no person: and a carcass may be a person, as well as any sort of substance be so without consciousness.

Could we suppose two distinct incommunicable consciousnesses acting the same body, the one constantly by day, the other by night; and, on the other side, the same consciousness, acting by intervals, two distinct bodies: I ask in the first case, whether the *day* and the *night-man* would not be two as distinct persons, as Socrates and Plato? And whether in the second case, there would not be one person in two distinct bodies, as much as one man is the same in two distinct clothings. Nor is it at all material to say, that this same, and this distinct *consciousness*, in the cases above-mentioned, is owing to the same and distinct immaterial substances, bringing it with them to those bodies, which, whether true or no, alters not the case: since 'tis evident the *personal identity* would equally be determined by the consciousness, whether that consciousness were annexed to some individual immaterial substance, or no. For granting, that the thinking substance in man must be necessarily supposed immaterial, 'tis evident, that immaterial thinking thing may sometimes part with its past consciousness, and be restored to it again, as appears in the forgetfulness men often have of their past actions, and the mind many times recovers the memory of a past consciousness, which it had lost for twenty years together. Make these intervals of memory and forgetfulness to take their turns regularly by day and night, and you have two persons with the same immaterial spirit, as much as in the former instance, two persons with the same body. So that *self* is not determined by

identity or diversity of substance, which it cannot be sure of, but only by identity of consciousness.

§24. Indeed it may conceive the substance whereof it is now made up, to have existed formerly, united in the same conscious being: but consciousness removed, that substance is no more it*self*, or makes no more a part of it, than any other substance, as is evident in the instance we have already given of a limb cut off, of whose heat, or cold, or other affections, having no longer any consciousness, it is no more of a man's self, than any other matter of the universe. In like manner it will be in reference to any immaterial substance, which is void of that consciousness whereby I am my*self* to my*self*: if there be any part of its existence, which I cannot upon recollection join with that present consciousness, whereby I am now my*self*, it is in that part of its existence no more my*self*, than any other immaterial being. For whatsoever any substance has thought or done, which I cannot recollect, and by my consciousness make my own thought and action, it will no more belong to me, whether a part of me thought or did it, than if it had been thought or done by any other immaterial being anywhere existing.

§25. I agree the more probable opinion is, that this consciousness is annexed to, and the affection of one individual immaterial substance.

But let men, according to their divers hypotheses, resolve of that as they please. This every intelligent being, sensible of happiness or misery, must grant, that there is something that is *himself* that he is concerned for, and would have happy; that this *self* has existed in a continued duration more than one instant, and therefore 'tis possible may exist, as it has done, months and years to come, without any certain bounds to be set to its duration; and may be the same *self*, by the same consciousness, continued on for the future. And thus, by this consciousness, he finds himself to be the *same self* which did such or such an action some years since, by which he comes to be happy or miserable now. In all which account of *self*, the same numerical substance is not considered as making the same *self*: but the same continued consciousness, in which several substances may have been united, and again separated from it, which, whilst they continued in a vital[15] union with that, wherein this consciousness then resided, made a part of that same *self*. Thus any part of our bodies vitally united to that which is conscious in us, makes a part of our*selves*: but upon separation from the vital union, by which that consciousness is communicated, that which a moment since was part of our*selves*, is now no more so, than a part of another man's *self* is a part of me; and 'tis not impossible, but in a little time may become a real part

of another person. And so we have the same numerical substance become a part of two different persons; and the same person preserved under the change of various substances. Could we suppose any spirit wholly stripped of all its memory or consciousness of past actions, as we find our minds always are of a great part of ours, and sometimes of them all, the union or separation of such a spiritual substance would make no variation of personal identity, any more than that of any particle of matter does. Any substance vitally united to the present thinking being, is a part of that very *same self* which now is: anything united to it by a consciousness of former actions, makes also a part of the *same self*, which is the same both then and now.

Person, a forensic term

§26. *Person*, as I take it, is the name for this *self*. Wherever a man finds what he calls *himself*, there I think another may say is the *same person*. It is a forensic term[16] appropriating actions and their merit; and so belongs only to intelligent agents capable of a law, and happiness and misery. This personality extends it*self* beyond present existence to what is past, only by consciousness, whereby it becomes concerned and accountable, owns and imputes to it*self* past actions, just upon the same ground, and for the same reason that it does the present. All which is founded in a concern for happiness, the unavoidable concomitant of consciousness, that which is conscious of pleasure and pain, desiring that that self, that is conscious, should be happy. And therefore whatever past actions it cannot reconcile, or appropriate to that present *self* by consciousness, it can be no more concerned in, than if they had never been done: and to receive pleasure or pain, *i.e.* reward or punishment, on the account of any such action, is all one, as to be made happy or miserable in its first being, without any demerit at all. For supposing a man punished now for what he had done in another life, whereof he could be made to have no consciousness at all, what difference is there between that punishment, and being created miserable? And therefore conformable to this, the Apostle tells us, that at the great day, when everyone shall 'receive according to his doings, the secrets of all hearts shall be laid open.'[17] The sentence shall be justified by the consciousness all persons shall have, that they *themselves*, in what bodies soever they appear, or what substances soever that consciousness adheres to, are the *same* that committed those actions, and deserve that punishment for them.

§27. I am apt enough to think I have, in treating of this subject, made some suppositions that will look strange to some readers, and possibly they are so in themselves. But yet, I think, they are such as are pardonable in

this ignorance we are in of the nature of that thinking thing that is in us, and which we look on as our*selves*. Did we know what it was, or how it was tied to a certain system of fleeting animal spirits;[18] or whether it could, or could not perform its operations of thinking and memory out of a body organized as ours is; and whether it has pleased God, that no one such spirit shall ever be united to any but one such body, upon the right constitution of whose organs its memory should depend, we might see the absurdity of some of those suppositions I have made. But taking, as we ordinarily now do (in the dark concerning these matters) the soul of a man, for an immaterial substance, independent from matter, and indifferent alike to it all, there can from the nature of things be no absurdity at all, to suppose, that the same soul may, at different times, be united to different bodies, and with them make up, for that time, one man: As well as we suppose a part of a sheep's body yesterday, should be a part of a man's body tomorrow, and in that union make a vital part of Melibœus[19] himself, as well as it did of his ram.

The difficulty from ill use of names

§28. To conclude, whatever substance begins to exist, it must, during its existence, necessarily be the same: whatever compositions of substances begin to exist, during the union of those substances, the concrete must be the same: whatsoever mode begins to exist, during its existence, it is the same: and so if the composition be of distinct substances, and different modes, the same rule holds. Whereby it will appear, that the difficulty or obscurity that has been about this matter, rather rises from the names ill used, than from any obscurity in things themselves. For whatever makes the specific idea, to which the name is applied, if that idea be steadily kept to, the distinction of anything into the same, and divers will easily be conceived, and there can arise no doubt about it.

Continued existence makes identity

§29. For supposing a rational spirit be the idea of a *man*, 'tis easy to know, what is the *same man*, *viz.* the *same spirit*, whether separate or in a body, will be the *same man*. Supposing a rational spirit vitally united to a body of a certain conformation of parts to make a *man*, whilst that rational spirit, with that vital conformation of parts, though continued in a fleeting successive body, remains, it will be the *same man*. But if to anyone the idea of a *man* be but the vital union of parts in a certain shape; as long as that vital union and shape remains, in a concrete no otherwise the same, but by a continued succession of fleeting particles, it will be the same *man*. For whatever be the composition, whereof the complex

idea is made, whenever existence makes it one particular thing under any denomination, the same existence continued, preserves it the same individual under the same denomination.[F]

CHAPTER XXVIII

Of other Relations

Proportional §1. 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 of that simple idea, *v.g. whiter*, *sweeter*, *bigger*, *equal*, *more*, etc. 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.

Natural §2. *Secondly*, another occasion of comparing things together, or considering one thing, so as to include in that consideration some other thing, is the circumstances 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*,[1] etc. which have their relations by one community of blood, wherein they partake in several degrees; *country-men*, *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 'tis 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 'tis 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 'tis 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 not have 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.

Instituted

§3. *Thirdly*, sometimes the foundation of considering things, with reference to one another, is some act whereby anyone 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.

Moral

§4. *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 combination of ideas. We have a further and greater concernment, and that is, to know whether such actions so made up are morally good or bad.

Moral good and evil §5. Good and evil, as hath been shown, B.II.Ch.XX. §2. and Ch.XXI. §42. are nothing but pleasure or pain, or that which occasions, or procures pleasure or pain to us. *Morally 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 from 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 decree of the law-maker, is that we call *reward* and *punishment*.

Moral rules §6. 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 man, 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. 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. *Laws*

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

§9. *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 laws, and has power to take away life, liberty, or goods from him who disobeys; which is the punishment of offences committed against this law. *Civil law, the measure of crimes and innocence*

§10. *Thirdly*, the *law of opinion or reputation.* Virtue and vice are names pretended, and supposed everywhere to stand for actions in their own nature right and wrong: and as far as they really are so applied, they so far are coincident with 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 everywhere 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 *Philosophical law, the measure of virtue and vice*

otherwise they would condemn themselves, if they should think anything *right*, to which they allowed not commendation; anything *wrong*, which they let pass without blame. Thus the measure of what is everywhere called and esteemed *virtue* and *vice*, is this 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 judgement, maxims, or fashions 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-citizen any further 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 anyone, who considers, that though that passes for *vice* in one country, which is counted a *virtue*, or at least not *vice* in another; yet everywhere, *virtue* and praise, *vice* and blame go together. *Virtue* is everywhere that which is thought praiseworthy; and nothing else but that which has the allowance of public esteem, is called *virtue*.* *Virtue* and praise are so united, that they

*Our author, in his Preface to the 4th edition, taking notice how apt men have been to mistake him, added what here follows. 'Of this the ingenious author[2] 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 had said book 2. 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 everywhere 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 generally do judge of, and denominate their actions 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. III, §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,

are called often by the same name. 'Sunt sua præmia laudi', says Virgil;[3] and so Cicero, 'Nihil habet natura præstantius, quam honestatem, quam

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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.

' 'Tis 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", etc. Philippians 4. 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", etc. By which words, and the rest of that section, it is plain, that I brought that 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. 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 3d. 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.

laudem, quam dignitatem, quam decus', which he tells you, are all names for the same thing, *Tusc. l.*2.[4] This is the language of the heathen philosophers, who well understood wherein their notions of *virtue* and *vice* consisted. And though, perhaps, by the different temper, education, fashion, maxims, or interest of different sorts of men, it fell out, that what was thought praiseworthy 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 everywhere. For since nothing can be more natural, than to encourage with esteem and reputation that, wherein everyone finds his advantage; and to blame and discountenance the contrary; 'tis no wonder, that esteem and discredit, virtue and vice, should in a great measure everywhere 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 preserved. 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', etc. Philippians, 4.8.

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[4] 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 everywhere he mentions me, not without conferring on me, as some others have done, a title I have no right to.'

Its enforcements, commendation, and discredit

§12. If anyone 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 on 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.

These three laws the rules of moral good and evil

§13. 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 'tis 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.

Morality is the relation of actions to these rules

§14. Whether the rule, to which, as to a touchstone,[5] 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 beforehand, 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-maker 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 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 twofold 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.

The denominations of actions often mislead us

§16. 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 judgement 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.

Relations innumerable

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

'Twould make a volume to go over all sorts of *relations*: 'tis 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,

All relations terminate in simple ideas

§18. *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 anything, 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 decompounded, 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 those 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 anything 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.

We have ordinarily as clear (or clearer) notion of the relation, as of its foundation

§19. *Secondly*, that in relations, we have for the most part, if not always, *as clear a notion for 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 digged Titus out of the parsley-bed,[6] (as they use to tell children) and thereby became his mother; and that afterwards in the same manner, she digged Cajus 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 incertain 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 names.

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

§20. *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 anything 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 it, 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; but I am not mistaken in the relation which

that action bears to that rule I compare it to, which is agreement, or disagreement.

CHAPTER XXIX

Of Clear and Obscure, Distinct and Confused Ideas

Ideas some clear and distinct, others obscure and confused

§1. 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 anyone, who would acquaint himself throughly 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*.

Clear and obscure, explained by sight

§2. 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 colours, 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 anything of that 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. The *cause of obscurity* in simple ideas, seems 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. *Causes of obscurity*

§4. 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 perceive a difference from all other; and a *confused* idea is such an one, as is not sufficiently distinguishable from another, from which it ought to be different. *Distinct and confused, what*

§5. 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 anyone say, to find anywhere 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. *Objection*

§6. 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, that so each sort, by its peculiar name, may be marked and discoursed of a part 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 *Confusion of ideas, is in reference to their names*

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.

Defaults which make confusion

§7. 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 'tis 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.

Secondly, or its simple ones jumbled disorderly together

§8. *Secondly*, another default 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,[1] 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 confused thing, than the picture of a cloudy sky; wherein though there be as little order of colours, or figures to be found, yet nobody thinks it a confused picture. What is it then that makes it be thought confused, 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 anyone with reason counts it confused: because it is not discernible, in that state, to belong more to the name man, or Cæsar, than to the name baboon, or Pompey;[2] which are supposed to stand for different ideas from those signified by man, or Cæsar.[3] But when a cylindrical mirror, placed right, hath reduced those irregular lines on the table 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 discernible as they are,) till it be ranked under some ordinary name, to which it cannot be discerned to belong, any more than it does to some other name of an allowed different signification.

Thirdly, or are mutable and undetermined

§9. *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 that 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.

Confusion without reference to names, hardly conceivable

§10. 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 has it 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.

Confusion concerns always two ideas

§11. *Confusion*, making it a difficulty to separate two things that should be separated, *concerns always two ideas*; and those most, which most approach one another. 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.

Causes of confusion

§12. 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 our 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 wonder 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 everywhere 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.

Complex ideas may be distinct in one part, and confused in another

§13. 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 *chiliadron*, or a body of a thousand sides, the idea 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 *chiliadron*; 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.

This, if not heeded, causes confusion in our arguings

§14. He that thinks he has a distinct idea of the figure of a *chiliadron*, let him for trial's 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 other, not, *etc.* 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.

Instance in eternity §15. 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. 'Tis 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.

Divisibility of matter §16. 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 abstractly is, and the relation of *totum* and *pars*:[4] 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 anyone, whether taking the smallest atom of dust he ever saw, he has any distinct idea (bating[5] still the number which concerns not extension) betwixt the 100,000, and the 1000,000 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[6] 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*,[7] our idea of their distinct bulks, which is the subject and foundation

of division, comes, after a little progression, 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. 'Tis 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, is 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, 'tis true, a clear idea of division, as often as we will 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 number 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) give 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 4 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.

CHAPTER XXX

Of Real and Fantastical Ideas

Real ideas are conformable to their archetypes

§1. 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*,[1] 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,

Simple ideas all real

§2. *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 showed.[2] But though whiteness and coldness are no more in snow, than pain is; yet those ideas of whiteness and coldness, pain, *etc.* 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 distinguish the qualities that are really in things themselves. For these several appearances being designed to be the marks 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.

Complex ideas are voluntary combinations

§3. 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; 'tis 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,

Mixed modes made of consistent ideas are real

§4. *Secondly, mixed modes and relations*, having no other *reality* but what they have in the minds of men, there is nothing more required to those 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 being themselves archetypes, cannot differ from their archetypes, and so *cannot be chimerical*, unless anyone 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 anything but itself.

Ideas of substances are real, when they agree with the existence of things

§5. *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 further *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 human shape, or such as the centaurs[3] 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, 'tis 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.

CHAPTER XXXI

Of Adequate and Inadequate Ideas

Adequate ideas, are such as perfectly represent their archetypes

§1. 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,

Simple ideas all adequate

§2. *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. 'Tis 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 in 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 the 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[1] 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 those we have reason to look on, as the real modifications of matter; and such as 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 further into it, but proceed to show, what complex ideas are *adequate*, and what not.

Modes are all adequate

§3. *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 anywhere, *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 anything; 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, everything 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 of 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 it is; nor 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 it 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.

Modes in reference to settled names, may be inadequate

§4. Indeed, another coming after, and in conversation learning from him the word *courage*, may make an idea, to which he gives that 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 speaking, 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.

Ideas of substances, as referred to real essences, not adequate

§6. *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 consequently refer their ideas to such real essences, as to their archetypes. That men[2] (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 anyone 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 man, with any other meaning, than as having the real essence of a man? And yet if you demand, what those real essences are, 'tis 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 connexion 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 connexion 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 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, *etc.* This essence, from which all these properties flow, when I inquire into it, and search after it, I plainly perceive I cannot discover: the furthest 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 connexion of its solid parts; of neither of which, I having any distinct perception at all, I can have no idea of its essence, which is the cause that it has that particular shining

yellowness; a greater weight than anything I know of the same bulk, and a fitness to have its colour changed by the touch of quicksilver.[3] If anyone 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 further 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.[4] 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*;[5] 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.

Ideas of substances, as collections of their qualities, are all inadequate

§8. *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, 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 specific names as clear, and as little cumbersome as they can, they make their specific ideas of the sorts of substances, 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, 'tis 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[6] 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 light 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 *aqua regia*;[7] 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 'tis probable, if anyone 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 that 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 anyone, 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. 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 *ellipse*, 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.

Simple ideas ἔκτυπα, and adequate

§12. Thus the mind has three sorts of abstract ideas, or nominal essences:

First, simple ideas, which are *ἔκτυπα*,[8] 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 me 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.

Ideas of substances are ἔκτυπα, inadequate

§13. *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 could 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.

Ideas of modes and relations, are archetypes, and cannot but be adequate

§14. *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 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*.

CHAPTER XXXII

Of True and False Ideas

Truth and falsehood properly belong to propositions

§1. 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 anything can be said to be *true* or *false*.

Metaphysical truth contains a tacit proposition

§2. 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.

No idea, as an appearance in the mind, true or false

§3. But 'tis 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[1] 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 judgement on them; that is, affirms or denies something of them.

Ideas referred to anything, may be true or false

§4. Whenever the mind refers any of its ideas to anything 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:

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

§5. *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 anything, whereon all its properties depend: and thus the greatest part, if not all our ideas of substances, are *false.*

The cause of such references

§6. 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 the 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 showed, 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 any 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 storehouse, 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

anyone 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. 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, and 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.

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

§9. *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 anyone mistakes in his names of simple ideas; or applies the name *red*, to the idea of 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, *etc.* 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.

Ideas of mixed modes most liable to be false in this sense

§10. *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.

Or at least to be thought false

§11. 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.

And why

§12. *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 anywhere, 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.

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

§13. *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.

First, simple ideas in this sense not false, and why

§14. *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.

Though one man's idea of blue should be different from another's

§15. 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 *marigold* produced in another man's, and *vice versâ*. 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 which he called *blue*; and those which had the texture of a *marigold*, 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.

First, simple ideas in this sense not false, and why

§16. 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* or *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.*

Secondly, modes not false

§17. *Secondly, neither can* our *complex ideas of modes, in reference to the essence of anything really existing, be false.* Because whatever complex idea I have of any mode, it hath no reference to any pattern existing, and made by nature: it is not supposed to contain in it any other ideas, than what it hath; nor to represent anything, 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 conveniencies 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.

Thirdly, ideas of substances when false

§18. *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 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, anyone 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 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 he 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.

Truth or falsehood always supposes affirmation or negation

§19. 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 judgement 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 or 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 showed hereafter.

Ideas in themselves neither true nor false

§20. Any idea then which we have in our minds, whether conformable or not to the existence of things, or to any ideas 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 anything 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,

But are false, first, when judged agreeable to another man's idea without being so

§21. *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.

Secondly, when judged to agree to real existence, when they do not

§22. *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 weight of tin, to the colour, fusibility, and fixedness of gold.

Thirdly, when judged adequate, without being so

§23. *Thirdly*, when in its complex idea, it has united a certain number of simple ideas, that do really exist together in some sorts 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 one from another.

Fourthly, when judged to represent the real essence

§24. *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, and 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 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,[2] 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. To conclude, a man having no notion of anything 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 reality of things, nor agreeing to the ideas 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 anything; because it represents nothing without me. But when I call it a *man*, or *Tartar*,[3] and imagine it either 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 judgement; nor the idea any way *false*. *Ideas when false*

§26. 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 anyone had rather call them *true* or *false*, 'tis fit he use a liberty, which everyone 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. *More properly to be called right or wrong*

CHAPTER XXXIII

Of the Association of Ideas

Something unreasonable in most men

§1. There is scarce anyone that does not observe something that seems odd to him, and is in itself really extravagant in the opinions, reasonings, and actions of other men. The least flaw of this kind, if at all different from his own, everyone 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.

Not wholly from self-love

§2. 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 overweening 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 daylight.

Nor from education

§3. This sort of unreasonableness is usually imputed to education and prejudice, and for the most party 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 further, 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.

A degree of madness

§4. 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,[1] 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.*2. *c.*11. §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.

From a wrong connexion of ideas

§5. 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 at all of kin, come to be so united in some men's minds, that 'tis 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.

This connexion how made

§6. This strong combination of ideas, not allied by nature, the mind makes in itself either voluntarily, or by chance; and hence it comes in different men to be very different, according to their different inclinations, educations, interests, *etc.* 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 that tract, 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.

Some antipathies an effect of it

§7. 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 overdose 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.

A great cause of errors

§9. This wrong connexion in our minds of ideas in themselves, loose and independent one of 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.

Instances

§10. The ideas of *goblins*[2] and *sprites*,[3] 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 almost 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.

Why time cures some disorders in the mind which reason cannot

§13. When this combination is settled, and whilst 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 never 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.

Further instances of the effect of the association of ideas

§14. 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 acknowledgement, 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 never so clear 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[4] at the appearance, or in the company of some certain person not otherwise superior 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 everywhere, 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 circumstances, 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.

Its influence on intellectual habits

§17. 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.

Observable in different sects

§18. 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 they 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 uncapable 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.

Conclusion §19. 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.