

New Essays on Human Understanding

Book II: Ideas

G. W. Leibniz

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[Brackets] enclose editorial explanations. Small ·dots· enclose material that has been added, but can be read as though it were part of the original text. Occasional •bullets, and also indenting of passages that are not quotations, are meant as aids to grasping the structure of a sentence or a thought. Every four-point ellipsis indicates the omission of a brief passage that seems to present more difficulty than it is worth.—Longer omissions are [explained] as they occur. Very small bold unbracketed numerals indicate the corresponding section number in Locke's *Essay*; most of these are provided by Leibniz. This version does not follow Leibniz's practice of always avoiding Locke's name in favour of 'this author', 'our gifted author', etc.

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Chapter i: Ideas in general, and the question ‘Does the soul of man always think?’

Philaethes: 1 Having examined whether ideas are innate, let us consider what they are like and what varieties of them there are. Isn’t it true that an idea is the object of thinking?

Theophilus: I agree about that, provided that you add that

- an idea is an immediate inner object, and that
- this object expresses the nature or qualities of things.

If the idea were the *form* of the thought—i.e. if it were the case that *thinking of a certain idea* is just *thinking in a certain manner* rather than *aiming one’s thought at a certain object*—the idea would come into and go out of existence with the actual thoughts that correspond to it; but since the idea is the *object* of thought it can exist before and after the thoughts. Outer things that we perceive by our senses are mediate objects, ·not immediate ones·, because they can’t act immediately on the soul. God is the only immediate outer object—the only thing outside us that acts immediately on our souls·. One might say that the soul itself is its own immediate inner object; but it is an *object* of thought only to the extent that it contains ideas—I can’t direct my thought immediately onto *my soul* other than by directing it onto *the ideas that my soul contains*·. Those ideas correspond to things. For the soul is a little world in which distinct ideas represent God and confused ones represent the universe.

Phil: 2 Taking the soul to be initially a blank page with no writing on it, i.e. with no ideas, Locke asks: How does it come to be furnished? Where does it get its vast store ·of ideas· from? To this he answers: from *experience*.

Theo: This empty page of which one hears so much is a fiction, in my view. Nature doesn’t allow of any such thing, and it’s purely a product of philosophers’ *incomplete*

notions—such as

- vacuum, •atoms, •the state of rest (one thing not moving, or two things not moving in relation to one another), and •‘prime matter’, which is supposed to have *no form*.

Things that are uniform, containing no variety, are *always* mere abstractions: for instance, time, space and the other entities of pure mathematics. There is no body whose parts are at rest, and no substance that doesn’t have something distinguishing it from every other. Human souls differ not only from non-human ones but also from one another. . . . And I think I can demonstrate that every substantial thing, whether a soul or a body, differs from every other substantial thing

- in respect of how it *relates* to everything else, and also in respect of its *intrinsic* (·non-relational·) nature.

And another point: those who hold forth about the ·mind as an· empty page can’t say what is left of it once the ideas have been taken away—like the Scholastics whose ‘prime matter’ has nothing left in it ·after its ‘form’ has been removed·. It may be said that this ‘empty page’ of the philosophers means that the soul naturally and inherently possesses nothing but bare *faculties* or capacities. But inactive faculties. . . .are also mere fictions: you can have an abstract thought of them, but they don’t occur in nature. For where in the world will one ever find a faculty consisting in sheer •power without performing any •act? There is always a particular disposition to action, and towards one action rather than another. And as well as the •disposition there is an •endeavour towards action—indeed there is an infinity of them in any thing at any moment, and these endeavours are never without some

effect. I admit that experience is necessary if the soul is to be given such-and-such ·specific· thoughts, and if it is to *attend to* the ideas that are within us. But how could experience and the senses *provide* the ideas? Does the soul have windows? Is it similar to writing-paper or like wax? Clearly, those who take this view of the soul are treating it as basically a material thing. You may confront me with this accepted philosophical axiom: *There is nothing in the soul that doesn't come from the senses*. But an exception must be made of the soul itself and its states:

Nihil est in intellectu quod non fuerit in sensu, excipe:
nisi ipse intellectus.

[The 'philosophical axiom' was a Scholastic slogan, which is why Theophilus gives it in Latin. In English: Nothing is in the intellect that wasn't ·first· in the senses—except the intellect itself.] Now, the soul includes *being, substance, one, same, cause, perception, reasoning*, and many other notions that the senses cannot provide. That agrees pretty well with Locke, for he looks for a good proportion of ideas in the mind's reflection on its own nature.

Phil: I hope then that you will concede to him that all ideas come through sensation or through reflection; that is, through our observation either of •external, sensible objects or •the internal operations of our soul.

Theo: In order to keep away from an argument on which we have already spent too long, let me say in advance that when you say that *ideas* come from one or other of those causes, I shall take that to mean ·that the senses prompt the *actual perception of the ideas* ·but don't provide the ideas themselves·. For I think I have shown that in so far as they have something distinct about them they are in us before we are aware of them.

Phil: With that in mind, let us see when the soul should

be said to start perceiving and actually thinking of ideas. **9** Some philosophers have held that the soul always thinks, and that •actual thinking is as inseparable from the •soul as •actual extension is from the •body. **10** But I can't see that it is any more necessary for •the soul always to think than it is for •the body always to move; the perception of ideas is to the soul what motion is to the body, ·namely, something that comes and goes·. That appears to me quite reasonable, anyway, and I would greatly like to have your opinion on it.

Theo: You have said it! Action is no more ·and no less· inseparable from the soul than it is from the body, ·because it is utterly essential to each·. It seems to me that a •thoughtless state of the soul and •absolute rest [= 'immobility'] in a body are equally contrary to nature, and never occur in the world. A substance that is in action at some time will be in action forever after, for all the effects linger on, merely being mixed with new ones. When you strike a body you cause (or rather *induce*) an infinity of swirls, as in a liquid—for fundamentally every solid is in some degree liquid, every liquid in some degree solid—and there's no way of ever entirely stopping this internal turbulence. Now, given that the body is never without movement it is credible that the soul that corresponds to it is never without perception. . . .

Phil: There is something in us that has a power to think. But that doesn't imply that thinking is always occurring in us.

Theo: True powers are never mere possibilities; there is always endeavour, and action.

Phil: But *that the soul always thinks* is not a self-evident proposition.

Theo: I don't say that it is. Digging it out requires a little attention and reasoning: the common man is no more aware

of it than of the pressure of the air or the roundness of the earth.

Phil: The question ‘Did I think all through last night?’ is a question about a matter of fact, and must be settled by sensible experience.

Theo: We settle it in the same way that we prove that there are imperceptible bodies and invisible movements, though some people make fun of them, namely by showing how much they strengthen theories. In the same way there are countless inconspicuous perceptions which don’t stand out enough for one to be aware of them or remember them but which show themselves through their consequences.

Phil: One author has objected that we ·Lockeans· maintain that the soul goes out of existence ·each night· because we aren’t aware of its existence while we sleep. But that objection can only arise from a strange misconception. We don’t say there is no soul in a man because he isn’t aware of it in his sleep; but we do say that he cannot think without being aware of it.

Theo: I haven’t read the book where that objection occurs. But there would have been nothing wrong with objecting against you in this way:

Thought needn’t stop just because one isn’t aware of it; for if it did, then by parity of argument we could say that there is no soul while one isn’t aware of it.

To meet *that* objection you must show that it is of the essence of thought *in particular* that one must be aware of it.

Phil: 11 It is hard to conceive that anything should think and not be conscious of it.

Theo: That is undoubtedly the crux of the matter—the difficulty that has troubled some able people. But the way to escape from it is to bear in mind that we *do* think of many

things all at once while attending only to the thoughts that stand out most distinctly. That is inevitable; to take note of everything we would have to direct our attention to an infinity of things at the same time—things that impress themselves on our senses and are all sensed by us. And I would go further: something remains of all our past thoughts, none of which can ever be entirely wiped out. When we are in dreamless sleep, or when we are dazed by some blow or a fall or a symptom of an illness or other mishap, an infinity of small, confused sensations occur in us. Death itself can’t affect the souls of animals in any way but that; they must certainly regain their distinct perceptions sooner or later, for in nature everything is orderly. I admit that in that confused ·unnoticing· state the soul would be without pleasure and pain, for they are *noticeable* perceptions.

Phil: 12 Isn’t it true that the men we are dealing with here, namely the Cartesians who believe that the soul always thinks, hold that non-human animals are *alive* but don’t have a thinking and knowing soul? And that they see no difficulty in saying that the soul can think without being joined to a body?

Theo: My own view is different. I share the Cartesians’ view that the soul always thinks, but I part company with them on the other two points. I believe that beasts have imperishable souls, and that no soul—human or otherwise—is ever without some body. I hold that God alone is entirely exempt from this because he is pure •act, •and having a body involves being in some respect •passive•.

Phil: If you had accepted ·all three items in· the Cartesian view, I would have drawn the following conclusion from your position. Since •the bodies of Castor and of Pollux can stay alive while sometimes having a soul and sometimes not, and since •a soul can stay in existence while sometimes being

in a given body and sometimes out of it, one might suppose that •Castor and Pollux shared a single soul which acted in their bodies by turn, with each being asleep while the other was awake. In that case, that •one soul would make •two persons as distinct as Castor and Hercules could be.

Theo: Here is a different imagined case—one that seems to be less fanciful. Don't we have to agree that after some passage of time or some great change a person might suffer a total failure of memory?... Now, suppose that such a man were made young again, and learned everything anew—would that make him a different man? •Obviously not!• So it isn't memory that makes the very same man. But as for the fiction about a soul that animates different bodies turn about, with the things that happen to it in one body being of no concern to it in the other: that is one of those fictions that go against the nature of things—like space without body, and body without motion—arising from the incomplete notions of philosophers. These fictions vanish when one goes a little deeper. Bear in mind that each soul retains all its previous impressions, and *couldn't* be separated into two halves in the manner you have described: within each substance there is a perfect bond between the future and the past, which is what creates the identity of the individual. Memory isn't necessary for this, however, and sometimes it isn't even possible because *so many* past and present impressions jointly contribute to our present thoughts....

Phil: 13 No-one can be convinced that his thoughts were busy during a period when he was asleep and not dreaming.

Theo: While one is asleep, even without dreams, one always has some faint *sensing* going on. Waking up is itself a sign of this: when someone is easy to wake, that is because he has more sense of what is going on around him, even when

it isn't strong enough to cause him to wake.

Phil: 14 It seems very hard to conceive that the soul in a sleeping man could be at one moment busy thinking and the next moment, just after he has woken, not be remembered.

Theo: Not only is it easy to •conceive, but something like it can be •observed every day of our waking lives! There are *always* objects that affect our eyes and ears, and therefore touch our souls as well, without our attending to them. Our attention is held by other objects, until a given object becomes powerful enough to attract our attention its way, either by acting more strongly on us or in some other way. It is as though we had been *selectively asleep* with regard to that object; and when we withdraw our attention from everything all at once the sleep becomes general. It is also a way of getting to sleep—dividing one's attention so as to weaken it.

Phil: 15 Thinking often without retaining for a single moment the memory of what one thinks—a useless sort of thinking!

Theo: Every impression has an effect, but the effects aren't always noticeable. When I turn one way rather than another it is often because of a series of tiny impressions that I am not aware of but which make one movement slightly harder than the other. All our casual unplanned actions result from a conjunction of tiny perceptions; and even our customs and passions, which have so much influence when we *do* plan and decide, come from the same source. For these •behavioural• tendencies come into being gradually, and so without our tiny perceptions we wouldn't have acquired these noticeable dispositions. I have already remarked that anyone who excluded these effects from moral philosophy would be copying the ill-informed people who exclude insensible corpuscles from natural science....

Phil: Perhaps it will be said that when a man is awake his body plays a part in his thinking, and that the memory is preserved by traces in the brain; whereas when he sleeps the soul has its thoughts separately, in itself.

Theo: I would say nothing of the sort, since I think that there is always a perfect correspondence between the body and the soul, and since I use bodily impressions of which one isn't aware, whether in sleep or waking states, to prove that there are similar impressions in the soul. I even maintain that something happens in the soul corresponding to the circulation of the blood and to every internal movement of the viscera, although one is unaware of such happenings, just as those who live near a water-mill are unaware of the noise it makes. The fact is that if during sleep or waking there were impressions in the body that didn't touch or affect the soul in any way at all, and others that *did*, there would have to be limits to the union of body and soul, as though bodily impressions needed a certain shape or size if the soul was to be able to feel them. And that is indefensible if the soul is not a material thing, for there is no way of bringing an immaterial substance and a portion of matter under a common measure that would let us say that a certain state of the matter wasn't adequate for a certain event in the immaterial substance. In short, many errors can flow from the belief that the only perceptions in the soul are the ones of which it is aware.

Phil: 17 Since you are so confident that the soul always actually thinks, I wish that you would tell me what ideas there are in the soul of a child just *before* or just *at* its union with the child's body, before it has received any through sensation.

Theo: It is easy to satisfy you on my principles. The perceptions of the soul always correspond naturally to the state of

the body; and when there are many confused and indistinct motions in the brain, as happens with those who have had little experience, it naturally follows that the thoughts of the soul can't be distinct either. But the soul is never deprived of the aid of sensation; for it always expresses its body, and this body is always affected in infinitely many ways by surrounding things, though often they provide only a confused impression.

Phil: 18 Here is another question of Locke's: 'To those who so confidently maintain that the human soul always thinks, or (the same thing) that a man always thinks, I say: How do you know this?'

Theo: [What follows somewhat expands Theophilus's answer, in ways that small dots can't easily indicate.] I suggest that it needs even *more* confidence to maintain that nothing happens in the soul that we aren't aware of. For anything that is noticeable must be made up of parts that *are not*. One reason for saying this is that nothing, whether thought or motion, can come into existence suddenly; from which it follows that a barely-noticeable perception must gradually build up in the mind from earlier, lesser stages of itself, and these must be unnoticeable perceptions. In short, we know there are mental events of which one isn't aware because their existence is required to make sense of the given facts. The question of how we know this is like the question 'How do we know about insensible particles?', and these days no intelligent person wants to ask *that*.

Phil: 19 I don't remember anyone who says that *the soul* always thinks telling us that *a man* always thinks.

Theo: I suppose that is because they are talking not just about the embodied soul but also about the soul that is separated from its body, and that they would readily admit

that the man always thinks while his soul and body are united. As for my own views: I have reason to hold that the soul is never completely separated from all body, so I think it can be said outright that the man does and will always think.

Phil: ‘A body is extended without having parts’—‘Something thinks without being aware that it does so’—these two assertions seem equally unintelligible.

Theo: . . . Your contention that there is nothing in the soul of which it isn’t aware has already held sway all through our first meeting, when you tried to use it to tear down innate ideas and truths. If I conceded it, I would not only be flying in the face of experience and of reason, but would also be giving up my own view—a view for which I think I have made a good enough case—without having any reason to do so. My opponents, accomplished as they are, have offered no proof of their own firmly and frequently repeated contention on this matter; and anyway there is an easy way of showing them that they are wrong, i.e. that it is *impossible* that we should always reflect explicitly on all our thoughts. If we did, the mind would reflect on each reflection, ad infinitum, without ever being able to move on to a new thought. For example, in being aware of some present feeling, I should have always to think that I think about that feeling, and further to think that I think of thinking about it, and so on ad infinitum. It *must* be that I stop reflecting on all these reflections, and that eventually some thought is allowed to occur without being thought about; otherwise I would dwell for ever on the same thing.

Phil: But wouldn’t it be just as reasonable to say that *a man is always hungry*, adding that he can be hungry without

being aware of it?

Theo: There is a big difference: hunger arises from special conditions that don’t always obtain. Still, it is true that even when one is hungry one doesn’t think about the hunger all the time; but when one thinks about it, one is aware of it, for it is a very noticeable disposition: there are always disturbances in the stomach, but they don’t cause hunger unless they become strong enough. One should always observe this distinction between thoughts in general and noticeable thoughts. Thus, a point that you offered in mockery of my view really serves to confirm it.

Phil: 23 ‘When does a man begin to have any ideas?’ The right reply, it seems to me, is *When he first has any sensation*.

Theo: That is my view too, though only for a somewhat special reason. For I think we are never without ideas, never without thoughts, and never without sensations either. But I distinguish ideas from thoughts. For we always have all our pure or distinct ideas independently of the senses, but thoughts always correspond to some sensation.

Phil: 25 But the mind is merely passive in the perception of simple ideas, which are the beginnings or materials of knowledge; whereas in the forming of composite ideas it is active.

Theo: How can it be wholly passive in the perception of all simple ideas, when by your own admission some simple ideas are perceived through *reflection*? The mind must at least give itself its thoughts of reflection, since it is the mind that reflects. . . .

Chapter ii: Simple ideas

Philaethes: I I hope you'll still agree that some ideas are simple and some composite. Thus, the warmth and softness of wax, the hardness and coldness of ice, provide simple ideas; for of these the soul has a uniform or same-all-over-conception that isn't distinguishable into different ideas.

Theophilus: I think it can be maintained that these sensible ideas *appear* simple because they are confused and thus don't provide the mind with any way of separately noticing their different parts; just like distant things that appear rounded because one can't see their angles, even though one is receiving some confused impression from them. It is obvi-

ous that green, for instance, comes from a mixture of blue and yellow; which makes it credible that the idea of green is composed of the ideas of those two colours, although the idea of green appears to us as simple as that of blue, or as that of warmth. So these ideas of blue and of warmth should *also* be regarded as simple only in appearance. I freely admit that we treat them as simple ideas, because we aren't aware of any divisions within them; but we try to analyse them—thus revealing their so-far-hidden complexities—doing this by means of further experiments, and by means of reason insofar as we can make them more capable of being treated by the intellect.

Chapter iii: Ideas of one sense

Philaethes: Now we can classify simple ideas according to how we come to perceive them, namely (1) by one sense only, (2) by more senses than one, (3) by reflection, or (4) by all the ways of sensation and reflection. The simple ideas that get in through just one sense that is specially adapted to receive them are:

light and colours that come in only by the eyes,
all kinds of noises, sounds, and tones only by the ears,
the various tastes only by the palate, and
smells only by the nose.

The organs or nerves convey them to the brain, and if one of the organs comes to be out of order, the sensations belonging

to that organ can't reach the brain by any detour. The most considerable of the ideas belonging to the sense of touch are heat and cold, and solidity. The rest consist either in the arrangement of sensible parts, as smooth and rough; or else in the way the parts hold together—e.g. hard and soft, tough and brittle.

Theophilus: I'm pretty much in agreement with what you say. But I might remark that it seems, judging by Mariotte's experiment on the blind spot in the region of the optic nerve, that membranes receive the sensation more than nerves do; and that there is a detour for hearing and for taste, since the

teeth and the cranium contribute to the hearing of sounds, and tastes can be experienced in a fashion through the nose

because the organs are connected. . . .

Chapter iv: Solidity

Philaethes: I No doubt you'll also agree that the sensation of solidity arises from our finding that each body resists letting any other body into the place that *it* is occupying until it has moved out of it. So 'solidity' is the name I give to that which stops two bodies that are moving towards one another from going the whole way and merging into one another. If anyone prefers to call this 'impenetrability', he has my consent; but I prefer 'solidity' because it has more of the sense of something *positive*. This idea [here = 'quality'] of solidity seems to be one that is the most intimately connected with *body* and is indeed *essential* to body; and we find it only in matter.

Theophilus: It is true that we find resistance in the sense of touch when we have difficulty getting another body to make way for our own body. It's also true that bodies in general are reluctant jointly to occupy a single place. Yet some people think it may be possible for this reluctance to be overcome; and—a quite different point—it is worth bearing in mind that the resistance that occurs in matter arises from it in more than one way, and for rather different reasons. One body *x* resists another body *y* when *x* either •has to leave the place it is already in or •fails to enter the place it was about to enter, because *y* is exerting itself to enter there too; and in that case it can happen that neither

x nor *y* gives way and each brings the other to a halt or pushes it back. The resistance shows up in the change in the body that is resisted—consisting in its slowing down or changing direction or both. Now, it can be said in a general way that this resistance comes from the reluctance of two bodies to share the same place, which can be called 'impenetrability'; for when one body exerts itself to enter the •disputed place it also exerts itself to drive the other out or prevent it from entering. But granted that there is •this kind of incompatibility that makes one or both bodies yield, there are also several •other sources for a body's resistance to another body that tries to make it give way. Some lie in the body itself, the others in neighbouring bodies. Within the body itself there are two.

(1) One is •passive and •constant, and I follow Kepler and Descartes in calling it '**inertia**'. It makes matter resistant to motion, so that force must be expended to move a body, independently of its having weight or being bonded to other things.

Thus a body that seeks to drive another along must encounter such resistance as a result.

(2) The other is •active and •changing. It consists in the body's own **impetus**: the body won't yield without resistance at a time when its own impetus is carrying it to a given place.

These sources of resistance show up in the neighbouring bodies also, when the resisting body can't give way without making others give way in their turn. But now a new element enters the picture, namely **(3) firmness**, or the bonding of one body to another. This bonding often brings it about that you can't push one body without at the same time pushing another that is bonded to it, so that there is a kind of *traction*—a kind of *pulling*—of the second body. Because of this **(3)** bonding, there would be resistance even if there were no **(1)** inertia or manifest **(2)** impetus. For if space is conceived as full of perfectly fluid matter that has neither inertia nor impetus, and a single hard body is placed in it, there won't be any resistance to that body's being moved; but if space were full of small cubes, a hard body would encounter resistance to its being moved among them. This is because the little cubes—just because they were hard, i.e. because their parts were bonded together—would be difficult to split up finely enough to permit circular movement in which the place a moving body leaves would immediately be refilled by something else. [The point about *circular* movement is just that as body A moved, its place would be taken by body B, whose place would be taken by body C. . . ., and so on, either *to infinity* or *only finitely because the series of place-takers would come to an end with body A which is what we started with*; in which case there would be if not necessarily a circle at least a closed *loop*.] But if two bodies were simultaneously inserted into the two open ends of a tube into which each of them fitted tightly, the matter that was already in the tube, however fluid it might be, would resist just because of **(4)** its sheer **impenetrability**. So the phenomenon of resistance that we are considering involves:

inertia,
impetus,
bonding, and
impenetrability.

It's true that in my opinion this bonding of bodies results not from basic forces of *attraction*, but rather from very small movements of bodies towards one another; but this is disputable, so it oughtn't to be assumed from the start. Nor, for the same reason, should it be initially assumed that there is an inherent, *essential* solidity such that. . . .any two bodies are perfectly impenetrable with respect to one another—not just fairly impenetrable or very impenetrable. This is in dispute because some people say that perceptible solidity may be due to a body's having a certain reluctance—but not an unconquerable reluctance—to share a place with another body. What people? Well, all the ordinary Aristotelians, and also some others; they think that what they call *rarefaction* and *condensation* can occur, i.e. that the very same matter could occupy more or less space: not merely in appearance (as when water is squeezed from a sponge), but really. . . . That's not my view, but I don't think we should assume its contradictory from the start. . . . Don't think that it must be either perfect impenetrability or no impenetrability, on the grounds that there's no conceivable basis on which bodies could be *somewhat* impenetrable. There *is* such a possible basis: someone could claim that bodies' resistance to compression is due to an effort by their parts to spread out when they are squeezed inwards, and efforts can be *more or less* strong. And, lastly: in detecting these qualities, the eyes can very usefully come to the aid of the sense of touch. . . .

Phil: 4 We are in agreement, at least, that a body's solidity consists in its filling a space in such a way that it utterly excludes other bodies out of that space, unless it can find some new space for itself; whereas hardness. . . .is a firm holding together of the parts of a mass of matter, so that the whole doesn't easily change its shape.

Theo: As I have already remarked [page 8], the special role of rigidity is to make it difficult to move one part of a body without also moving the remainder, so that when one part *x* is pushed the other part *y* is also taken in the same direction by a kind of traction, although it isn't itself pushed and doesn't lie on the line along which the push is exercised. And this works in both directions: if *y* meets an obstacle that holds it still or forces it back, it will pass this effect back to *x*, pulling it back or holding it still. The same thing happens sometimes with two bodies that aren't in contact and aren't adjoining parts of a single continuous body; for even then it can happen that when one body is pushed it makes the other move without pushing it (so far as our senses can tell). Examples of this are provided by the magnet, electrical attraction, and the attraction that used to be explained through nature's 'fear of a vacuum'.

Phil: It seems that in general 'hard' and 'soft' are descriptions that we apply to things only in relation to the constitutions of our own bodies.

Theo: If that were right, there wouldn't be many philosophers attributing hardness to the 'atoms' that they believe in! The *notion* of hardness doesn't depend on the senses: the possibility of it can be conceived through reason, although it's the senses that convince us that it also actually occurs in nature. However, rather than the word 'hardness' I would prefer 'firmness', if I may be allowed to use it in this sense, for there is always some firmness even in soft bodies. I would even look for a broader and more general word such as stability or cohesion [= 'holding together']. Thus, I would offer
 hard—soft
 as one contrast, and
 firm—fluid
 as another. For wax is soft, but unless melted by heat it isn't

fluid; and even in fluids there is usually some cohesion—and thus a degree of hardness—as can be seen in drops of water and of mercury. I think that all bodies have a degree of cohesion, just as I think that they all have at least some degree of fluidity. So that in my view the atoms of Epicurus, which are supposed to be unconquerably hard, can't exist, any more than can the rarefied and perfectly fluid matter of the Cartesians. But this isn't the place to defend this view or to explain what gives rise to cohesion.

Phil: There seems to be experimental proof that bodies are perfectly solid. For example, in Florence a golden globe filled with water was put into a press; the water couldn't give way, and so it passed out through the pores of the globe.

Theo: There is something to be said about the conclusion you draw from what happened to the water in that experiment. Air is a body just as much as water is, and yet the same thing would not happen to air, since it—at least so far as the senses can tell—*can* be compressed. And those who reject perfect solidity because they believe in genuine rarefaction and condensation will say that water is already too compressed to yield to our machines, just as very compressed air resists further compression. On the other hand, if some tiny change were noticed in the volume of the water, one could reconcile that with perfect solidity by ascribing the change to the air that the water contains. But I shan't now discuss the question of whether pure water is itself compressible, as it is found to be expansible when it evaporates. Still, basically I share the view of those who think that bodies are perfectly impenetrable, and that there is only apparent rarefaction and condensation. But this can't be proved by the sort of experiment you have described, any more than the Torricellian tube or Guericke's machine can prove there is a perfect vacuum.

Phil: If body could be strictly rarefied or compressed, it could change its volume or its extension; but since that can't happen, a body will always be equal to the same amount of space. 5 Yet its extension will always be distinct from the extension of the space.

Theo: . . . It's true that in conceiving body one conceives something in addition to space, but that doesn't imply that there are two extensions—the extension of space and the extension of body. Similarly, in conceiving several things at once one conceives something in addition to the number, namely the things numbered; but there aren't two pluralities, an abstract one for the number and a concrete one for the things numbered! In the same way, there is no need to postulate two extensions, an abstract one for space and a concrete one for body. In each case the concrete item is as it is only by virtue of the abstract item. In each case? With number and with extension? Yes! The fact that bodies pass from one position in space to another, i.e. change how they are ordered in relation to one

another

should be compared with the fact that

things pass from one position to another within an ordering or enumeration—as when the first becomes the second, the second becomes the third, etc.

In fact, time and place are only kinds of order; and if there were an empty place within one of these orders it would indicate the mere possibility of the missing item and how it relates to the actual. For example, an empty place in this enumeration—

1. opera
2. symphony
3. concerto
- 4.
5. sonata

merely indicates the possibility of including (say) *quartet* in the list, and putting it after *concerto* and before *sonata*. Similarly with an empty portion of space, if there were such a thing; our name for it is, of course, 'vacuum' . . .

Chapter v: Simple ideas of more than one sense

Philalethes: The ideas that we come to perceive through more than one sense are those of space (or extension), shape, rest and motion.

Theophilus: These ideas that are said to come from more than one sense—such as those of space, shape, motion,

rest—really come from. . . the mind itself; for they are ideas of the pure understanding (though the senses make us perceive them—they relate to the external world). So they can be defined and can enter into demonstrations, which means that they aren't 'simple' in your sense.

Chapter vi: Simple ideas of reflection

Philaethes: 1-2 The simple ideas that come through reflection are the ideas of *the understanding* and of *the will*; for we are aware of these when we reflect on ourselves.

Theophilus: It is doubtful whether these are all simple ideas;

for it is evident for instance that the idea of the will *includes* that of the understanding—because someone's *willing* to do A involves his having a *thought* of doing A—and that the idea of movement contains the idea of shape.

Chapter vii: Ideas of both sensation and reflection

Philaethes: 1 There are simple ideas that come to be perceived in the mind through all the ways of sensation and reflection, namely *pleasure, pain, power, existence, and unity*.

Theophilus: It seems that the senses couldn't convince us

of the existence of sensible things without help from reason. So I would say that the thought of existence comes from reflection, that those of power and unity come from the same source, and that these are of a quite different nature from the perceptions of pleasure and pain.

Chapter viii: More considerations about simple ideas

Philaethes: 2 What shall we say about negative qualities? It seems to me that the ideas of *rest, darkness and cold* are just as positive as those of *motion, light and heat*. 6 ·I have said that these positive ideas may have negative causes, but what I have assigned for them are merely what are commonly believed to be their negative causes. In fact it will be hard to settle whether there are *really* any ideas from a

negative cause until it is settled whether rest is any more a privation—a lack, a negative state of affairs—than motion.

Theophilus: I had never thought there could be any reason to doubt the negative nature of rest. All it involves is a denial of motion in the body. For motion, on the other hand, it isn't enough to deny rest; something else must be added to determine the degree of motion, for motion is essentially a

matter of more and less, whereas all states of rest are equal. It is different when the *cause* of rest is in question, for that must be positive. . . . But I should still think that the *idea* of rest consists only in negation. It's true that the act of denial is something positive.

Phil: 8 The qualities of things are their abilities to produce in us the perception of ideas. **9** We should distinguish them into •primary qualities and •secondary qualities. Extension, solidity, shape, number and mobility are what I call primary qualities: they are the basic qualities of bodies, and a body can't be without them. **10** And I designate as secondary qualities the faculties or powers that bodies have to produce •certain sensations in us, or •certain effects in other bodies such as the effect of fire on wax that it melts.

Theo: I think it could be said that a power should be included among the •primary qualities if it can be grasped by the intellect and clearly explained, and among the •secondary qualities it is known only through the senses and yields only a confused idea.

Phil: 11 These primary qualities show how bodies operate one on another. Bodies act only by pushing, at least so far as we can conceive; for we can't make sense of the supposition that a body might *act on something it doesn't touch*, which amounts to supposing it to *act where it isn't!*

Theo: I also think that bodies act only by pushing, but there is a problem about the argument you have just given. For •attraction sometimes involves •touching: one can touch something and draw it along apparently without pushing, as I showed earlier in discussing hardness [pages 8, 43]. If one part of an Epicurean atom (supposing there were such things) were pushed, it would draw the rest along with it, being in contact with it while setting it into motion without

pushing; and when there is an attraction between two contiguous things, the one that draws the other along with it cannot be said to 'act where it isn't'. This argument would be valid only against attraction *at a distance*. . . .

Phil: 13 Now, when certain particles strike our organs in various ways, they cause in us certain sensations of colours or of tastes, or of other secondary qualities that have the power to produce those sensations. Is it conceivable that God should link the •idea of *heat* (for instance) to •motions that don't in any way resemble the idea? Yes, just as it is conceivable that he should link the •idea of *pain* to the motion of a piece of steel dividing our flesh—a motion that in no way resembles the idea!

Theo: It mustn't be thought that ideas such as those of colour and pain are arbitrary, with no relation or natural connection between them and their causes; it isn't God's way to act in such a disorderly and unreasoned fashion. I hold that there *is* a resemblance between those ideas and the motions that cause them—a resemblance *of a kind*—not a perfect one that holds all the way through, but a resemblance in which one thing expresses another through some orderly relationship between them. Thus an ellipse. . . .has some resemblance to the circle of which it is a projection on a plane, since there is a certain precise and natural relationship between what is projected and the projection that is made from it, with each point on the one corresponding through a certain relation with a point on the other. This is something that the Cartesians missed; and on this occasion you have deferred to them more than you usually do and more than you had grounds for doing.

Phil: I tell you what appears to me true; and it appears to be the case that **15** the ideas of primary qualities of bodies resemble those qualities, whereas the ideas produced in us

by the secondary qualities don't resemble them at all.

Theo: I have just pointed out how there is a resemblance, i.e. a precise relationship, in the case of secondary qualities as well as of primary. I can't *prove* this, but it is thoroughly reasonable that the effect should correspond to the cause; and we could never be sure that it doesn't, because we have no distinct knowledge either of the sensation of blue (for instance) or of the motions that produce it. It's true that pain doesn't resemble the movement of a pin; but it might thoroughly resemble the motions that the pin causes in our body, and might represent them in the soul; and I haven't the least doubt that it does. That's why we say that the pain is in our body and not in the pin, although we say that the light is in the fire; because there are motions in the fire that the senses can't clearly detect individually, but which form a confusion—a running together—which is brought within reach of the senses and is represented to us by the idea of light.

Phil: 21 But if the relation between the object and the sensation were a natural one how could it happen, as we see it does, that the same water can appear cold to one hand and warm to the other? That phenomenon shows that the warmth is no more in the water than pain is in the pin.

Theo: The most that it shows is that warmth isn't a sensible quality (i.e. a power of being sensorily detected) of an entirely absolute kind, but rather depends on the associated organs; for a movement in the hand itself can combine with that of warmth, altering its appearance. Again, light doesn't appear to malformed eyes, and when eyes are full of bright light they can't see a dimmer light. Even the 'primary qualities' (as you call them), such as *unity* and *number*, can fail to appear as they should; for, as Descartes noted, a globe appears double when it is touched with the fingers in a certain way, and

an object is multiplied when seen in a mirror or through a glass into which facets have been cut. So, from the fact that something doesn't always appear the same, it doesn't follow that •it isn't a quality of the object, or that •its image doesn't resemble it. As for warmth: when our hand is very warm, the lesser warmth of the water doesn't make itself felt, and serves rather to moderate the warmth of the hand, so that the water appears to us to be cold; just as salt water from the Baltic, when mixed with water from the Sea of Portugal, lessens its degree of salinity even though it is itself saline. So there's a sense in which the warmth can be said to be *in the water* in a bath, even if the water appears cold to someone; just as we describe honey in absolute terms as sweet, and silver as white, even though to certain invalids one appears sour and the other yellow; for things are named according to what is most usual. [Here and in other places, 'absolute' is opposed to 'relative': We say 'That fruit is sweet' (absolute) rather than 'That fruit is sweet to me' or '... sweet to most people' (relative).] None of this alters the fact that when the organ and the intervening medium are properly constituted, •the motions inside our body and •the ideas that represent them to our soul resemble •the motions in the object that cause the colour, the warmth, the pain etc. In this context, *resembling* the object is *expressing it through some rather precise relationship*; though we don't get a clear view of this relation because we can't disentangle this multitude of minute impressions—in our soul, in our body, and in what lies outside us.

Phil: 24 We regard the sun's qualities of whitening and softening wax or hardening mud merely as simple *powers*, without thinking that anything in the sun resembles this whiteness, softness, or hardness. Yet warmth and light are commonly thought of as real qualities of the sun, although really these qualities of light and warmth, which are percep-

tions in me, are no more *in the sun* than the changes the sun makes in the wax are in the sun.

Theo: Some believers in this doctrine have tried to persuade us that if someone could touch the sun he would find no heat in it! The counterfeit sun that can be felt at the focus of a mirror or a burning glass should cure them of that. As for the comparison between the sun's power to warm and its power to whiten: I venture to say that if the melted or whitened wax were sentient, it too would feel something like

what we feel when the sun warms us, and if it could speak it would say that the sun is hot. This isn't because the wax's whiteness resembles the sun, for in that case the brown of a face tanned by the sun would also resemble it; but because at that time there are motions in the wax that have a relationship with the motions in the sun that cause them. There could be some other cause for the wax's whiteness, but not for the motions that it has undergone in receiving whiteness from the sun.

Chapter ix: Perception

Philaethes: 1 The topic of perception brings us to ideas of *reflection*. Just as perception is the first [here = 'most basic'] •power of the soul to relate to our ideas, so also it is the first and simplest •idea we have from reflection. 'Thinking' often signifies the mind's *active* dealings with its ideas, in which it considers things with some degree of *voluntary* attention. But in what is called 'perception' the mind is mostly passive; it can't help perceiving the things it perceives.

Theophilus: It might perhaps be added that beasts have perception, and that they don't necessarily have thought, i.e. have reflection or anything that could be the object of reflection. If that is right, then your tying of perception to reflection, even if it holds for humans, doesn't hold for all perceiving beings. We too have tiny perceptions of which we aren't aware in our present state. We could in fact become thoroughly aware of them and reflect on them, if our attention weren't scattered by the sheer number of them,

and if bigger ones didn't obliterate them or rather put them in the shade.

Phil: 4 I admit that while the mind is focussing its thought on something, it isn't aware of impressions that certain bodies make on the organ of hearing. They may be exerting enough force on the organ, but because it isn't observed by the soul no perception arises from it.

Theo: I would prefer to distinguish 'perceiving' from 'being aware'. For instance, when we are aware of a perception of light or colour, it is made up of many tiny perceptions of which we are not aware; and a noise that we perceive but don't attend to is brought within reach of our awareness by a tiny increase or addition. If the previous noise had no effect on the soul, this very small addition wouldn't have any either, nor would the total. . . .

Phil: 8 Ideas that are received by sensation are often altered

by the judgment of the mind in grown people, without their being aware of it. The idea of a globe of some uniform colour is of a flat circle variously shadowed and lighted. But as we are accustomed to distinguish the appearances of bodies, and the alterations in the reflections of light according to the shapes of their surfaces, we substitute •the globe for •the idea of it, i.e. •the cause of the image for •what actually appears to us; and so we mix up *judging* •that it is a globe• with *seeing* •the globe•.

Theo: That is perfectly true: this is how a painting can deceive us, by means of the skillful use of perspective. When bodies have flat surfaces they can be depicted merely by means of their outlines, without use of shading. . . . This is how drawings of medallions are usually done, so that the draftsman can stay closer to the exact outlines of the originals. But such a drawing, unaided by shading, can't distinguish a flat circular surface from a spherical one, since neither contains any distinct points or distinguishing features. . . . So when we are deceived by a painting, we make two wrong judgments. **(1)** We substitute the cause for the effect, and believe that we immediately see •the painting, i.e. •the thing that causes the image—a bit like a dog barking at a mirror. For strictly we see only the •mental• image, and are affected only by rays of light. Since rays of light need time—however little—to reach us, the painting could have gone out of existence while the light was getting from it to our eye; and something that doesn't exist *now* can't be what I am seeing *now*. **(2)** We are further deceived when we substitute one cause for another and believe that what comes merely from a flat painting actually comes from a body—e.g. mistaking a *trompe l'oeil* painting of a door for a door. . . . This confusion of the effect with the real or the supposed cause frequently occurs in other sorts of judgments too. This

is how we come to believe that it is by direct causal real influence that we sense our bodies and the things that touch them, and move our arms, taking this influence to constitute the interaction between the soul and the body; whereas really all that we sense or alter in that way is what is within us, •i.e. within our souls•.

Phil: Here is a problem for you, which. . . .Mr Molyneux sent to Mr Locke. This is pretty much how he worded it:

Suppose that someone who was born blind has learned through the sense of touch to distinguish a cube from a sphere, so that when confronted with both he can tell by touch which is the cube and which the sphere. Now suppose he becomes able to see, and has before him a cube and a sphere sitting on a table. *Question:* Could this man tell which is the sphere and which the cube, just by looking at them and not touching them?

Now, please tell me what your view is about this.

Theo: That's an interesting one, and I'd like to think about it for a while. But since you urge me to reply at once I will risk saying (just between the two of us!) that I believe that *if the blind man knows that the two shapes that he sees are those of a cube and a sphere*, he will be able to identify them and to say, without touching them, that this one is the sphere and that one the cube.

Phil: I'm afraid I have to include you among the many who have given Mr Molyneux the wrong answer. He reports that having been prompted by Locke's *Essay* to put the question to various able men, hardly any of them gave at first the answer that he thinks is right, though after hearing his reasons they were convinced of their mistake. His answer is negative, and he defends it as follows: Although this blind man has had experience of how a globe feels and of how a

cube feels, he doesn't yet know that what •affects his touch *thus* must •affect his sight so. . . .Locke has declared that he entirely agrees.

Theo: Molyneux and Locke may be closer to my opinion than at first appears. The reasons for their view—apparently contained in Molyneux's letter, it appears, and successfully used by him to convince people of their mistake—may have been deliberately suppressed by Locke so as to make his readers think the harder. If you will just consider my reply, you will see that I have included in it a condition: . . .namely •that the blind man has been told that the two shaped bodies that are before him are a cube and a sphere, and •that he merely has the problem of telling *which is which*. Given this condition, it seems to me beyond question that the newly sighted man could discern them by applying rational principles to the sensory knowledge that he has already acquired by touch. (I'm not talking about what he might actually do on the spot, when he is dazzled and confused by the strangeness—or, one should add, unaccustomed to making inferences.) My view rests on the fact that in the case of the sphere there are no distinguished points on the surface of the sphere taken in itself, since everything there is uniform and without angles, whereas in the case of the cube there are eight points that are distinguished from all the others. If there weren't that way of recognising shapes, a blind man couldn't learn the rudiments of geometry by touch, nor could a sighted person learn them by sight without touch. However, we find that men born blind *can* learn geometry, and indeed always have some rudiments of a natural geometry; and we find that geometry is mostly learned by sight alone without employing touch, as *must* be done by a paralytic or by anyone else to whom touch is virtually denied. These two geometries, the blind man's and the paralytic's, must come together,

and agree, and indeed basically rest on the same •ideas, even though they have no •images in common. (Which shows yet again how essential it is to distinguish images from exact ideas that are composed of definitions.) It would indeed be very interesting and even informative to investigate thoroughly the ideas of someone born blind, and to hear how he would describe shapes. For he could achieve that, and could even understand optical theory in so far as it rests on •distinct mathematical *ideas*, though he wouldn't be able to conceive of the •vivid-confused, i.e. of the *image* of light and colours. That is why one congenitally blind man who had heard lessons in optics and appeared to understand them quite well, when he was asked what he believed light was, replied that he supposed it must be something pleasant like sugar! Similarly, it would be very important to investigate the ideas that a man born deaf and dumb can have about things without shapes: we ordinarily have the description of such things in words, but he would have to have it in an entirely different manner—though it might be equivalent to ours. . . . [He presents some real-life anecdotes about men who were born deaf.]

But to return to the man born blind who begins to see, and to what he would judge about the sphere and the cube when he saw but didn't touch them: . . . I grant that if he isn't told in advance that of the two appearances or perceptions he has of them one belongs to the sphere and the other to the cube, it won't immediately occur to him that these paintings of them (as it were) that he forms at the back of his eyes—which could come from a flat painting on the table—represent •bodies •at all, let alone that they represent a sphere and a cube. *That* will occur to him only •when he becomes convinced of it by the sense of touch or •when he comes, through applying principles of optics to the light rays, to understand from the evidence of the lights and

shadows that there is something blocking the rays and that it must be precisely the same thing that resists his touch. He will eventually come to understand this •when he sees the sphere and cube rolling, with consequent changes in their appearances and in the shadows they cast; or when, with the two bodies remaining still, the source of the light falling on them is moved or the position of his eyes changes. For these are pretty much the means that we *do* have for distinguishing at a distance between a picture representing an object and the real object.

Phil: 11 Let us return to perception in general. It is what distinguishes the animal kingdom from inferior beings •such as plants and inanimate objects•.

Theo: There is so much likeness between plants and animals that I'm inclined to think that there is some perception and appetite [= 'something along the lines of *desire*'] even in plants. . . . All the same, everything that happens in the bodies of plants and animals except their initial formation is to be explained in terms of mechanism. So I agree that the movements of so-called 'sensitive plants' result from mechanism, and I don't approve of bringing in *the soul* when plant and animal phenomena have to be explained in detail.

Phil: 13-14 Indeed, I can't help thinking that there is some small dull perception even in such animals as oysters and

cockles. •It is bound to be small and dull•, for acuteness of sensation would only be an inconvenience to an animal that has to lie still wherever chance has placed it, and there be awash in such water as happens to come its way—colder or warmer, clean or polluted.

Theo: Very good, and almost the same could be said about plants, I think. In man's case, however, perceptions are accompanied by the power to reflect, which turns into actual reflection when there are the means for that. But a man may be reduced to a •state where it is as though he were in a coma, having almost no feeling; and in that state he loses reflection and awareness, and gives no thought to general truths. Yet his powers and dispositions, both innate and acquired, and even the impressions that he receives in this •state of confusion, still continue: they aren't obliterated, though they are forgotten. Some day their turn will come to contribute to some noticeable result; for

nothing in nature is useless,
all confusion must be sorted out, and
even the animals that have sunk into stupor must
eventually return to perceptions of a higher degree.

It is wrong to judge of eternity from a few years, •and *eternity* is what we are dealing with here•, for simple substances last for ever.

Chapter x: Retention

Philaethes: 1 The next power of the mind, taking it closer to knowledge of things than simple perception does, is what I call ‘retention’, or the preserving of those items of knowledge that the mind has received through the senses or through reflection. This retention is done in two ways: by keeping the idea •actually in view (‘contemplation’) and **2** by keeping the •power to bring ideas back before the mind (‘memory’).

Theophilus: We also retain and contemplate *innate* knowledge, and very often we can’t distinguish the innate from the acquired. There is also perception of images, both those we have had for some time and those that have newly come into being in us.

Phil: But we followers of Locke believe that •these images or ideas go out of existence when there is no perception of them, and that •this talk of ‘storing ideas in the repository of the memory’ means merely that the soul often has a power to revive perceptions that it has once had, accompanied by

a feeling that convinces it that it has had these sorts of perceptions before.

Theo If ideas were only the forms of thoughts, ways of thinking, they would cease when the thoughts ceased; but you have accepted that they are the inner *objects* of thoughts, and as such they can persist •after the thoughts have stopped•. I’m surprised that you can constantly rest content with bare ‘powers’ and ‘faculties’, which you apparently won’t accept from the scholastic philosophers! What’s needed is somewhat clearer explanation of what this faculty consists in and how it is exercised: that would show that there are dispositions that are the remains of past impressions in the soul as well as in the body, and that we are unaware of except when the memory has a use for them. If nothing were left of past thoughts the moment we ceased to think of them, there could be no account of how we could keep the memory of them; to resort to a bare ‘faculty’ to do the work is to talk unintelligibly.

Chapter xi: Discerning, or the ability to distinguish ideas

Philaethes: 1 The evidentness and certainty of various propositions that are taken to be innate truths depend on our ability to discern ideas.

Theophilus: I grant that it requires discernment to think of these innate ideas and to sort them out, but that doesn’t

make them any less innate.

Phil: 2 •Quickness of wit consists in the ready recall of ideas, but there is •judgment in setting them out precisely and separating them accurately.

Theo: It may be that each of those is quickness of imagina-

tion, and that judgment consists in the scrutiny of propositions in accordance with reason. . . .

Phil: 4 Another way in which the mind deals with its ideas is by *comparing* them with one another in respect of extent, degrees, time, place or any other circumstances. This is the basis for all the host of ideas that fall under the label 'relation'. [In Locke's time, 'comparing' two things could be simply *bringing them together in a single thought*, not necessarily a thought about their being alike. That usage lingers on today in one idiom, 'Let's get together and compare notes'.]

Theo: I take •relation to be more general than •comparison. There are relations of comparison, including resemblance, equality, inequality etc. But there are other relations not of comparison but of •concurrence; these involve some *connection*, such as that of cause and effect, whole and parts, position and order etc. . . .

Phil: 7. . . . Animals that have a numerous brood of young ones at once seem to have no knowledge of *how many* they are.

Theo: . . . Even human beings can know the numbers of things only by means of some artificial aid, such as •using numerals for counting, or •arranging things in patterns so that if one is missing its absence can be seen at a glance.

Phil: 10 The beasts don't make abstractions either.

Theo: That is my view too. They apparently recognize whiteness, and observe it in chalk as in snow; but this doesn't amount to abstraction, which requires attention to the general apart from the particular, and consequently involves knowledge of universal truths, which beasts don't have. It is also very well said ·by Locke· that •beasts that talk don't use speech to express general ideas, and that •men who are incapable of speech and of words still make other

general signs, ·a fact which marks them off from the beasts·. I'm delighted to see you ·and Locke· so well aware, here and elsewhere, of the privileges of human nature.

Phil: 11 However, if beasts have any ideas at all, and aren't bare machines (as some people think they are), we can't deny that they have a certain degree of reason. It seems as evident to me that •they reason as that they •have senses; but they reason only with particular ideas, just as they received them from their senses.

Theo: Beasts pass from one imagining to another by means of a •link between them that they have previously experienced. For instance, when his master picks up a stick the dog anticipates being beaten. In many cases children, and for that matter grown men, move from thought to thought in just that way. This *could* be called 'inference' or 'reasoning' in a very broad sense. But I prefer to keep to accepted usage, reserving those two words for men, and restricting them to the knowledge of some *reason* for perceptions being •linked together. Mere sensations can't provide this: all they do is to cause one naturally to expect once more that same linking that has been observed previously, even though the reasons may no longer be the same. That's why those who are guided only by their senses are often disappointed.

Phil: 13 Imbeciles are deprived of reason by their lack of quickness, activity, and motion in the intellectual faculties, whereas madmen seem to suffer from the other extreme. It seems to me that they haven't lost the power to reason, but having joined together some ideas very wrongly they mistake them for truths; and they err in the manner of men who argue correctly from wrong premises. For example a madman thinks he is a king, from which he *rightly* infers that he should have courtiers, respect and obedience.

Theo: Imbeciles don't use reason at all. They differ from stupid people whose judgment is sound but who are looked down on and are a nuisance because they are so slow to grasp things. . . . I recall that an able man who had lost his memory through using certain drugs was reduced to that condition, but his judgment continued to be evident. A complete madman lacks judgment in almost every situation, though the liveliness of his imagination can make him entertaining. Some people are *selectively mad*: they acquire a madly false conviction about some important aspect of their lives and then reason correctly from it, as you have rightly pointed out. [He gives details of an instance of this.]

Phil: 17 The understanding is rather like a room that is completely blocked off from light except for a few little openings that let in external visible images. If the images coming into such a dark room *stayed* there in an orderly arrangement that enabled them to be found when wanted, it would very closely resemble the understanding of a man.

Theo: We could increase the resemblance by postulating

that there is a screen in this dark room to receive the images, and that this screen or membrane

- isn't uniform but is diversified by folds representing items of innate knowledge,
- is under tension, giving it a kind of elasticity or active force, and
- acts (or reacts) in ways that are adapted both to past folds and to new ones brought about by newly arrived images.

This action would consist in certain vibrations or oscillations, like those we see when a cord under tension is plucked and gives off something of a musical sound. For not only do we receive images and traces in the brain, but we form new ones from them when we bring complex ideas to mind; and so the screen that represents our brain must be active and elastic. This analogy would explain reasonably well what goes on in *the brain*. As for *the soul*, which is a simple substance or monad: without being extended it *represents* these various extended masses and has perceptions of them.

Chapter xii: Complex ideas

Philaethes: 3 Complex ideas are either of modes or of substances or of relations.

Theophilus: This division of the objects of our thoughts into substances, modes and relations is pretty much to my liking. I believe that qualities are just modifications of substances and that relations are added by the understanding. More follows from this than people think. [In this passage, calling

qualities 'modifications' is way of saying that they are •ways that substances are, •states that they are in, and not extra items, additional to the substances, that are *in* the substances.]

Phil: 5 Modes are either •simple (such as a dozen, a score, which are made from simple ideas of the same kind, i.e. from units), or •mixed (such as beauty) which contain simple ideas of different kinds.

Theo: It may be that *dozen* and *score* are merely relations, and therefore exist only with respect to the understanding. The units are separate and the understanding takes them together, however scattered they may be. However, although relations are the work of the understanding they aren't baseless and unreal. You might think that an item must be unreal if its source or basis is mental, but that is wrong for at least two reasons. (1) The primordial understanding of God is the source of all things. (2) For any item *x* other than a simple substance, what it is for *x* to be *real* is for there to be a foundation for certain perceptions had by simple substances. Many of the items that you call 'mixed modes' ought also to be treated rather as relations.

Phil: 6 The ideas of substances are combinations of simple ideas that are taken to represent distinct particular things existing in their own right—rather than existing in dependence on something else, as qualities or modes do. What is always considered to be the first and chief ingredient in any idea of a substance is the obscure notion of *substance*; e.g. the notion of *gold* is the notion of *substance* that is heavy, yellow, fusible, . . . etc. Whatever substance may be in itself,

we postulate it without knowing anything about it.

Theo: The idea of substance isn't as obscure as it is thought to be. We can know about it the things that have to be the case, and the ones that are found to be the case through other things; indeed knowledge of concrete things is always prior to that of abstract ones—hot things are better known than heat.

Phil: Of substances also there are two sorts of ideas: one of single substances, as of a man, or a sheep; the other of several of those put together, as an army of men, or flock of sheep. These collections also form a single idea.

Theo: This unity of the idea of an aggregate is a very genuine one; but basically we have to admit that this unity that collections have is merely a respect or relation, whose basis lies in what is the case within each of the individual substances taken alone. So the only perfect unity that these entities by aggregation have is a mental one, and consequently their very being is also in a way mental, or phenomenal, like that of the rainbow.

Chapter xiii: Simple modes, starting with the simple modes of space

Philaethes: 3 Space considered in relation to the length between any two beings, is called 'distance'; if considered in relation to length, breadth, and thickness, it may be called 'capacity'.

Theophilus: To put it more clearly, the distance between

two fixed things—whether points or extended objects—is the size of the shortest possible line that can be drawn from one to the other. This distance can be taken either absolutely or relative to some figure that contains the two distant things. For instance, a straight line is absolutely *the*

distance between two points; but if these two points both lie on the same spherical surface, *the distance between them on that surface* will be the length of the smaller arc of the great circle that can be drawn from one to the other. It is also worth noticing that there are distances not only between bodies but also between surfaces, lines and points. . . .

Phil: 4 In addition to what nature provides, men have settled in their minds the ideas of certain determinate lengths, such as an inch and a foot.

Theo: They can't have! It's impossible to have the idea of an exact determinate length: no-one can say or grasp in his mind precisely what an inch or a foot is. And the meanings of these terms can be retained only by means of real standards of measure that are assumed to be unchanging, through which they can always be re-established. . . .

Phil: 5 Observing how the extremities are bounded either by straight lines that meet at distinct angles, or by curved lines in which no angles can be perceived, we form the idea of *shape*.

Theo: A shape on a surface is bounded by a line or lines, but the shape of a body can be limited without determinate lines, as in the case of a sphere. A single straight line or plane surface can't enclose a space or form any shape. But a single line can enclose a shape on a surface—a circle or oval, for instance—just as a single curved surface can enclose a solid shape such as a sphere or spheroid. Still, not only several straight lines or plane surfaces, but also several curved lines or several curved surfaces can meet and can even form angles with each other when one isn't tangent to the other. It is difficult to give a general definition of 'shape' as geometers use the term. To say that

shape is what is extended and limited

would be too general, since a straight line, for instance, though bounded by its two ends, isn't a shape; nor, for that matter, can two straight lines form a shape. To say that

shape is what is extended and limited by something extended

is not general enough, since a whole spherical surface is a shape and yet it isn't limited by anything extended. Again, one might say that

shape is what is extended and limited and contains an infinite number of paths from one point to another.

This includes limited surfaces lacking boundary lines, which the previous definition didn't cover, and it excludes lines, because from one point to another on a line there is only one path or a determinate number of paths. But it would be better still to say that

a shape is what is extended and limited and •has an extended cross-section,

or simply that it •has breadth, another term whose definition hasn't been given until now.

Phil: 6 All shapes, at least, are nothing but simple modes of space.

Theo: Simple modes, on your account of them, repeat the same idea; but shapes don't always involve repetition of the same thing. Curves are quite different from straight lines and from one another. So I don't see how the definition of simple mode can apply here.

Phil: Our definitions shouldn't be taken too strictly. But let us move on from shape to place. **8** When we find all the chess-men standing on the same squares of the chess-board where we left them, we say they are all 'in the same place' even if the chess-board has been moved. We also say that the chess-board is 'in the same place' if it stays in the same part of the cabin, even if the ship has moved; and the ship is also

said to be 'in the same place' if it has kept the same distance from the parts of the neighbouring land, even though the earth has turned.

Theo: Place is either particular, as considered in relation to this or that body, or universal; the latter is related to everything, and in terms of it all changes of every body whatsoever are taken into account. If there were nothing fixed in the universe, the place of each thing would still be determined by reasoning, if there were a means of keeping a record of all the changes or if the memory of a created being were adequate to retain them. . . . However, what we can't grasp is nevertheless determinate in the truth of things.

Phil: 15 If anyone asks me 'What is space?' I will tell him when he tells me what extension is.

Theo: The nature of extension can be explained quite well (I wish I could explain the nature of fever as well!). Extension is an abstraction from the extended, and the extended is a continuum whose parts are coexistent, i.e. exist at the same time.

Phil: 17 If anyone asks whether space with no body in it is •substance or •accident [here = 'property'], I shall freely admit that I don't know.

Theo: I'm afraid I'll be accused of vanity in trying to settle something that you admit you don't know. But there are grounds for thinking that you know more about it than you think you do. Some people have thought that *God* is the place of objects. . . .; but that makes •place involve something over and above what we attribute to •space, because we don't regard space as being active in anyway, ·whereas obviously *God* is active·. Taken as being entirely inactive, space is no more a substance than time is, and ·anyway· if it has parts it can't be *God*. It is a relationship: an order, not only

among existing things but also among possibles as though they existed. But its truth and reality are grounded in *God*, like all eternal truths.

Phil: I am not far from your view. You know the passage in St Paul which says that in *God* we live, move and have our being. So that, depending on how one looks at the matter, one could say that space is *God* or that it is only an order or relation.

Theo: Then the best way of putting it is that space is an order but that *God* is its source.

Phil: To know whether space is a substance, however, we'd have to know the nature of substance in general. **18** That raises the following difficulty. If *God*, finite spirits, and body all have the same common nature of *substance*, won't it follow that they differ only in having different modifications of that substance? [This means, roughly: 'Won't it follow that they are all things of a single basic kind, *substance*, and differ only in being different varieties of it—comparable with different varieties of apples, or of houses, or of birds?']

Theo: If that inference were valid, it would also follow that since *God*, finite spirits and bodies have the same common nature of *being*, they will differ only in having different modifications of that being!

Phil: 19 The people who first stumbled onto 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

Theo: Do you then believe that accidents can exist out of substance? Or do you not regard them as real beings? You seem to be creating needless problems; as I have already pointed out, substances and concrete things are conceived before accidents and abstractions are.

Phil: 20 In my opinion the words ‘substance’ and ‘accident’ aren’t of much use in philosophy.

Theo: I confess to holding a different view. I believe that the concept of substance is of the greatest importance and fruitfulness for philosophy.

Phil: We have been discussing substance only incidentally, in asking whether space is a substance. But all that matters here is that space isn’t a body. **21** Thus no-one will venture to affirm that •body is infinite, as •space is.

Theo: Yet Descartes and his followers, in making the world out to be ‘indefinite’ so that we can’t conceive of any end to it, have said that matter has no limits. They have some reason for replacing the term ‘infinite’ by ‘indefinite’, for there is never an *infinite whole* in the world, though for any given whole there is always another that is greater, and so on ad infinitum. As I have shown elsewhere, the universe itself cannot be considered to be a whole.

Phil: Those who take •matter and •what is extended to be one and the same thing claim that the inner surfaces of an empty hollow body would touch. But the space that

lies between two bodies is enough to prevent their mutual contact.

Theo: I agree with you; for although I deny that there is any vacuum, I distinguish matter from extension, and I grant that if there *were* a vacuum inside a sphere the opposite poles within the hollow still wouldn’t touch. But I don’t think that God’s perfection permits such a situation to occur.

Phil: 23 Yet it seems that motion proves the existence of vacuum. Even if a body could be divided into parts as small as a mustard seed (but no smaller), the parts of the divided body couldn’t move freely unless there were a portion of empty space as big as a mustard seed. If it is divided into particles of matter a hundred million times smaller than a mustard seed, the same argument applies.

Theo: If the world were full of hard particles that couldn’t be bent or divided. . . .then motion would indeed be impossible. But in fact hardness isn’t basic; on the contrary fluidity is the basic condition, and the division into bodies is carried out—there being no obstacle to it—according to our need. That takes all the force away from the argument that there must be a vacuum because there is motion.

Chapter xiv: Duration and its simple modes

Philalethes: 1 Corresponding to extension (·spatial·) there is duration (·temporal·). **10** A part of duration in which we don’t perceive any change in our ideas is what we may call ‘an instant’.

Theophilus: This definition ought (I believe) to be taken as applying to the everyday notion of ‘instant’, like the ordinary man’s notion of a ‘point’ ·as something extended but extremely small·. For strictly speaking points and instants

aren't parts of time or space, and don't have parts either. They are only termini. ·A line ends *at* a point; the point isn't a tiny portion of the line.·

Phil: 16 What gives us the idea of *duration* is not •motion but •a constant sequence of ideas.

Theo: A sequence of perceptions *awakens* the idea of duration in us, but it doesn't *create* it. The way our •perceptions follow one another is never constant and regular enough to correspond to the passing of •time, which is a simple and uniform continuum like a straight line. Changes in our perceptions prompt us to think of time, and we measure it by means of uniform changes. But even if nothing in nature were uniform, time could still be determined, just as place could still be determined even if there were no fixed and motionless bodies. Knowing the rules governing non-uniform motions, we can always analyse them into comprehensible uniform motions, which enables us to predict what will happen through various motions in combination. In this sense time is the measure of motion, i.e. uniform motion is the measure of non-uniform motion.

Phil: 21 One can't know for certain that two parts of duration are equal; and it must be admitted that astronomical observations can yield only approximations. Exact research has revealed that the daily revolutions of the sun are not exactly equal, and for all we know the same may be true of its yearly revolutions.

Theo: The pendulum has revealed the inequality between days, as measured from one noon to the next. . . . We already knew this, of course, and we knew that there are rules governing the inequality. As for the annual rotation, which evens out the inequalities of the solar days, it could change in the course of time. The earth's rotation on its axis. . . .is

the best measure we have so far, and clocks and watches enable us to divide it up. Yet this same daily rotation of the earth could also change in the course of time; and if some pyramid could last long enough or were replaced by newly built ones, men could be aware of that change through keeping records—in terms of the pyramids—of the length of pendulums that now swing a known number of times during one rotation. . . .

Phil: Our measurement of time would be more accurate if we could keep a past day for comparison with days to come, as we keep spatial measures.

Theo: Instead of which we have to keep and consult bodies that go through their motions in more or less equal times. But we certainly can't say either that a ·physical· measure of space, such as a yard that is kept in wood or metal, remains *perfectly* the same.

Phil: 22 Obviously, everyone has measured time by the motion of the heavenly bodies, ·which amounts to making motion the measure of time·; so it is very strange that 'time' should be defined ·by Aristotle· as 'the measure of motion'.

Theo: I have just explained in **16** how that should be understood. In fact, Aristotle said that time is the •*number* of motion, not its *measure*. Indeed we could say that a duration is known by the •number of equal periodic motions ·that take place in it·. . . .for instance by so many revolutions of the earth or the stars.

Phil: 24 And yet we anticipate [here = 'extrapolate'] these revolutions. Although the 'Julian period' is supposed to have begun several hundred years before there were really either days, nights or years marked out by any revolutions of the sun, the statement 'Abraham was born in the 2712th year of the Julian period' is perfectly intelligible, just as it would

be to say how long after the beginning of the world he was born.

Theo: This vacuum that can be conceived in time—namely, the eventless period that is supposed to have elapsed between the beginning of the Julian period and the beginning of the world—indicates that time pertains as much to possibles as to existents. Similarly with the vacuum that can be conceived in space. I would add that counting years from the beginning of the world is the least suitable of all systems of dating, for several reasons, including the great disparity between the Greek and Hebrew texts recounting the beginning of the world.

Phil: 26 One can conceive •the beginning of motion, though one can't make sense of •a beginning of all duration. Similarly, one may set limits to •body but not to •space.

Theo: As I have just said, time and space indicate *possibilities* beyond any that might be supposed to be actual. Time and space are of the nature of eternal truths, which equally

concern the possible and the actual.

Phil: 27 The ideas of time and of eternity really have a common source, for we can in our thoughts add certain lengths of duration to one another, doing this as often as we please.

Theo: But to derive the notion of eternity from this repeated addition we must have the thought of a single principle that at each stage takes one to the next stage—a principle such as 'Add 1'. What yields the notion of the •infinite, or the •indefinite, is this thought of a possible progression generated by a principle. Thus the senses unaided can't enable us to form •these notions. In the nature of things the idea of the absolute (•e.g. the idea of infinity) is more basic than the idea of any limits that we might contribute (•e.g. the idea of a thousand), but the process that brings infinity *to our attention* starts with limited things that strike our senses.

Chapter xv: Duration and expansion considered together

Philaethes: 4 We have no trouble envisaging an infinite duration of •time, because we think of God as lasting for ever; but an infinite expanse of •place is harder to conceive, because we attribute extension only to *matter*, which is finite—and we call spaces beyond the limits of the •material universe 'imaginary'...

Theophilus: If God were •spatially extended he would have

parts. But his having duration—i.e. his stretching through time—implies that *his operations* have parts but not that *he* does. However, where space is in question we must attribute immensity to God, and this also gives parts and order to his immediate operations. He is the source of •possibilities through his •essence, and of •existents through his •will. Thus, space like time derives its reality only from him, and

he can fill up the void whenever he pleases. It is in this way that he is omnipresent.

Phil: 11 What spirits have to do with space, and how (if at all) they occupy any of it, we don't know. But we do know that they last through time.

Theo: Every finite spirit is always joined to an organic body, and represents other bodies to itself by their relation to its own body. Thus it is obviously related to space as bodies are. Finally, before leaving this topic, I will add a comparison of my own to those that you have given between time and space. If there were a vacuum in space (for instance, if a sphere were empty inside), one could establish its size.

But if there were a vacuum in time, i.e. a duration without change, it would be impossible to establish its length. It follows from this that we can refute someone who says that if there is a vacuum between two bodies then they touch, since two opposite poles within an empty sphere cannot touch—geometry forbids it. But we couldn't refute anyone who said that two successive worlds are contiguous in time so that one necessarily begins as soon as the other ceases, with no possible interval between them. We couldn't refute him, I say, because that interval is indeterminable. If space were only a line and bodies were immobile, it would also be impossible to establish the length of the vacuum between two bodies.

Chapter xvi: Number

Philaethes: 4 The ideas of numbers are more precise than ideas of extension, and easier to distinguish from one another. When we are dealing with extension it is not the case that every equality and every inequality is easy to observe and measure; because our thoughts about space can't arrive at a minimum, a certain determinate smallness beyond which it can't go, comparable to a unit of number.

Theophilus: That applies to whole numbers, but not to others. For number in the broad sense—comprising fractions, irrationals, transcendental numbers and everything that can be found between two whole numbers—is analogous to a line, and doesn't admit of a minimum any more than the continuum does. So this definition of *number* as a *multitude*

of *units* is appropriate only for whole numbers. Precise distinctions amongst ideas of extension don't depend on size: for we can't distinctly recognize sizes without resorting to whole numbers, or to numbers that are known through whole ones; and so, where distinct knowledge of size is sought, we must leave continuous quantity and resort to discrete quantity. So if one doesn't use numbers, one can distinguish amongst the modifications of extension only through shape—taking that word broadly enough to cover everything that prevents two extended things from being geometrically similar to one another.

Phil: 5 By the repeating of the idea of a *unit* and joining it to another unit, we make a collective idea marked by the

name 'two'. If you can do this, repeatedly adding a unit to the last collective idea and giving each new idea a name, you can count as far as you have a series of names that you can remember.

Theo: One couldn't get far by that method alone. For the memory would become overloaded if it had to retain a completely new name for each addition of a new unit. For that reason there has to be a certain orderliness in these names—a certain repetitiveness, with each new start conforming to a certain progression.

Phil: Two modes of numbers can't differ from one another in any way except by one's being greater than the other. That is why they are *simple* modes, like those of extension.

Theo: You can say of •portions of time and •portions of a straight line that they can't differ in any way except as greater or lesser. But this doesn't hold for all shapes and still less of all numbers; for numbers can differ in other ways as well:

9 is unlike 11 in being divisible by 3

5 is unlike 6 in being odd,

4 is unlike 8 in being a square number,

and so on. . . . So you see that your idea of simple and of mixed modifications, or your way of applying it, stands in great need of amendment.

Phil: 6 You are right in your comment that numbers should be given names that are easy to remember. So I think it would be a good idea if in counting we abbreviated 'million of millions' to 'billion', and abbreviated 'million of millions of millions' or 'million of billions' to 'trillion', and so on up to *nonillions*; for one is hardly likely to have a use for anything higher.

Theo: These names are acceptable. Let x be equal to 10; then a million will be x^6 , a billion x^{12} , a trillion x^{18} , . . . and so on up to a nonillion which will be x^{54} . [The standard British billion was 10^{12} until late in the 20th century, when the British shifted to the American usage in which one billion = 10^9 .]

Chapter xvii: Infinity

Philaethes: 1 One extremely important notion is that of finite and infinite, which are looked on as the modes of quantity.

Theophilus: It is perfectly correct to say that there is •an infinity of things, i.e. that there are always more of them than one can specify. But it is easy to demonstrate that

there is no •infinite number, and no infinite line or other infinite quantity if these are taken to be genuine wholes. . . . The true infinite, strictly speaking, is only in the absolute, which is more basic than any composition and isn't formed by the addition of parts. . . .

Phil: 2 I have been taking it as established that the mind

looks on finite and infinite as modifications of expansion and duration.

Theo: I don't consider that to have been established. The thought of finite and infinite is appropriate wherever there is magnitude or multiplicity, and thus isn't confined to space and time. Also the genuine infinite isn't a modification: it is the absolute; and indeed it is precisely by modifying it that one limits oneself and forms a finite.

Phil: 3 It has been our belief that the mind gets its idea of infinite space from the fact that no change occurs in its power to go on enlarging its idea of space by further additions.

Theo: It is worth adding that it is because the same principle can be seen to apply at every stage. Let us take a straight line, and extend it to double its original length. It is clear that the second line, being perfectly similar to the first, can be doubled in its turn to yield a third line that is also similar to the preceding ones; and since the same principle is always applicable, it is impossible that we should ever be brought to a halt; and so the line can be lengthened to infinity. Accordingly, the thought of the infinite comes from the thought of likeness, or of the same principle, and it has the same origin as do universal necessary truths. That shows how our ability to carry through the conception of this idea comes from something within us, and couldn't come from sense-experience; just as necessary truths couldn't be proved by induction or through the senses. The idea of the absolute is internal to us, as is that of being; these absolutes are nothing but the attributes of God; and they may be said to be as much the source of ideas as God himself is the principle of beings. The idea of the absolute, with reference to space, is just the idea of the immensity of God and thus of other things. But it would be a mistake to try to suppose an absolute space that is an infinite whole

made up of parts. There is no such thing: it is a notion that implies a contradiction; and these infinite wholes, and their opposites the infinitesimals, are like imaginary roots in algebra in having no place except in calculations.

Phil: One can also conceive a magnitude without taking it to consist of parts lying side by side. **6** Consider the most perfect idea I have of the whitest whiteness; I can't add to this an idea of something more white than this; and if I add to it another idea of a less or equal whiteness, that doesn't increase or enlarge my idea in any way. That is why the different ideas of whiteness are called *degrees* of whiteness.

Theo: I can't see that this reasoning is cogent, for nothing prevents one from having the perception of a whiteness more brilliant than one at present conceives. The real reason why one has grounds for thinking that whiteness couldn't be increased to infinity is that it isn't a basic quality: the senses provide only a confused knowledge of it; and when we do achieve a distinct knowledge of it we shall find that it depends on structure, and that its limits are set by the structure of the visual organs. But where basic or distinctly knowable qualities are concerned, there are ways of going to infinity, not only in contexts involving extent. . . ., e.g. time and space, but also in ones involving intensity or degrees, e.g. with regard to speed.

Phil: 7 We don't have the idea of a space that is infinite; **8** and nothing is more evident than the absurdity of the actual idea of an infinite number.

Theo: That is my view too. But it isn't because we cannot have the idea of the infinite, but because an infinite cannot be a true whole.

Phil: 16 By the same token, we have no positive idea of an

infinite duration, i.e. of eternity, nor one of immensity.

Theo: I believe that we have a positive idea of each of these. This idea will be true provided that it is conceived not as an infinite whole but rather as an absolute, i.e. as an attribute

with no limits. In the case of eternity, it lies in the necessity of God's existence: there is no dependence on parts, nor is the notion of it formed by adding times. That shows once again that, as I have already remarked, the notion of infinity comes from the same source as do necessary truths.

Chapter xviii: Other simple modes

Philaethes: **1** There are many other simple modes that are formed out of simple ideas. For example **2** the modes of motion such as sliding and rolling; **3** those of sounds, which are modified by notes and tunes, **4** as colours are by shades; **5** not to mention tastes and smells. **6** There are not always measures and distinct names, any more than there are with complex modes, **7** because we are guided by what is useful.

We shall discuss this more fully when we come to consider words.

Theophilus: Most modes are not so very simple, and could be classified as complex. To explain what sliding or rolling is, for example, one would have to take into account not just motion but also surface friction.

Chapter xix: The modes of thinking

Philaethes: **1** Let us pass on from modes that come from the •senses to those that •reflection gives us. First, here is a classification with some terminology.

•Sensation: when an idea comes into the mind through the senses.

- Remembrance: when the same idea recurs in the mind without any stimulus from the external senses.
- Self-communion: when the idea is sought after by the mind, and with some effort is found and brought again in view.

- Contemplation: when the idea is for a long time held in the mind and attentively considered.
- Reverie: when ideas float in our mind, as it were, without reflection or attention.
- Attention: when the ideas that offer themselves are taken notice of and, as it were, registered in the memory.
- Concentration of mind, or study: when the mind earnestly fixes its view on an idea, considers it on all sides, and won't let other ideas call it off from this one.
- Dreamless sleep: the cessation of all these.
- Dreaming: at a time when the external senses are not working, having ideas in the mind that are not suggested or prompted by any external objects, or by any known occasion, and are not voluntarily brought there by the understanding.

Is what we call 'ecstasy' *dreaming with the eyes open*? I leave that undecided.

Theophilus: It is good to sort out these notions, and I shall try to help. I shall say then that it is

- sensation when one is aware of an outer object,
- remembrance is the recurrence of it [=? the sensation] without the return of the object, and
- memory is remembrance when one knows that one has had it before.
- 'Self-communion' is usually understood to name a state in which one disengages oneself from practical matters in order to engage in meditation.

That is different from the sense that you give the term, but since there is no word that I know that does fit your notion, yours could be adapted for the purpose.

- Attention is picking on some objects in preference to

others.

- Consideration is the continuation of attention in the mind, whether or not the outer object is still observed, or even still exists.
- Contemplation is consideration that aims at knowledge without reference to action.
- Study is attention that aims at learning—i.e. acquiring knowledge in order to keep it.
- Meditating is considering with a view to planning some project.

Engaging in reveries seems to consist merely in following certain thoughts for the sheer pleasure of them and with no other end in view. That is why reverie can lead to madness: one forgets oneself, forgets one's goals, drifts towards dreams and fantasies, builds castles in Spain. We can distinguish dreams from sensations only because they aren't connected with sensations—they are like a separate world. Sleep is a cessation of sensations, and thus ecstasy is a very profound sleep from which the subject can't easily be waked, arising from a temporary internal cause. That last condition is added so as to exclude the deep sleep that arises from a drug or—as in a coma—from some prolonged impairment of one's functions. Ecstasies are sometimes accompanied by visions, but the latter can also occur without ecstasy; and it seems that a vision is nothing but a dream that is taken for a sensation as though it conveyed something true about objects. Divine visions do indeed contain truth, as can be discovered for instance when they contain detailed prophecies that are justified by events.

Phil: 4 From the fact that the mind can think more or less concentratedly, it follows that thinking is the action of the soul, not its essence.

Theo: No doubt thinking is an action, and cannot be the

essence; but it is an essential action, and such actions occur in all substances. I have shown above [page 38] that we always have an infinity of tiny perceptions without being aware of them. We are never without perceptions, but necessarily we are often without awareness, namely when none of our perceptions stand out. It is because that important point

has been neglected that so many good minds have been conquered by a loose philosophy—one as ignoble as it is flimsy—and that until very recently we have been ignorant of all that is finest in the soul. And that is why people have found so plausible the erroneous doctrine that souls are by nature perishable.

Chapter xx: Modes of pleasure and pain

Philaethes: 1 Bodily sensations, like the thoughts of the mind, may be either indifferent or followed by pleasure or pain. Like other simple ideas these sensations can't be described, nor can their names be defined.

Theophilus: I believe that there are no perceptions that are matters of complete indifference to us; but a perception can be so described if it isn't a notable one, for pleasure and pain appear to consist in *notable* helps and hindrances. In saying this, I'm not giving a •nominal definition of them—i.e. one that suffices to pick out pleasure (pain) from other states—and •that can't be given.

Phil: 2 The *good* is whatever is apt to cause or increase pleasure, or diminish or cut short pain in us. *Evil* is apt to produce or increase pain, or diminish · or cut short· pleasure in us.

Theo: That is my opinion too. The good is divided into the •virtuous, the •pleasing, and the •useful; though I believe that basically something good must either be pleasing in itself or •conducive to something else that can give us a pleasant feeling. That is, the good is either pleasing or •useful; and virtue itself consists in a pleasure of the mind.

Phil: 3 From pleasure and pain come the passions. 4 One has *love* for something that can produce pleasure, and 5 the thought of the sorrow or pain that anything present or absent is apt to produce is *hatred*. But when we hate or love beings who are themselves capable of happiness or misery, this is often an unpleasure or a contentment that we find in ourselves arising ·not from a thought about what they might do to us, but merely· from thinking about the fact that they exist, or the fact that they are happy.

Theo: That definition of love is almost the same as one I have given. . . ., when I said that to love is to be disposed to take pleasure in the perfection, well-being or happiness of the object of one's love. This involves not thinking about or asking for any pleasure of one's own except what one can get from the happiness or pleasure of the loved one. On this account, whatever is incapable of pleasure or of happiness isn't strictly an object of *love*; our enjoyment of things of that nature isn't love of them unless we personify them and play with the idea of their enjoying their own perfection. When we say 'I love that painting' because of the pleasure one gets from taking in its perfections, that isn't strictly love. But it is permissible to extend the sense of a term, and in the case of 'love' usage varies. Philosophers, and even theologians, distinguish two kinds of love:

- Concupiscence, which is merely the desire or the feeling we have towards what gives pleasure to us, without our caring whether it receives any pleasure; and
- Benevolence, which is the feeling we have for something by whose pleasure or happiness we are pleased or made happy.

The former fixes our view on our own pleasure; the latter on the pleasure of others, but as something that produces or rather constitutes our own pleasure. If it didn't reflect back on us somehow, we couldn't care about it, because it is impossible (whatever they say) to disengage from a concern for one's own good. That is the way to understand disinterested love [= 'love that is not *self*-interested'] if we are properly to grasp its nobility and yet not succumb to fantasies about it.

Phil: 6 What we call 'desire' is the *uneasiness* a man has be-

cause of the absence of something whose present enjoyment carries the idea of delight with it. Uneasiness is the •chief spur to human action—and perhaps the •only one. If the absence of some good—*any* good—gives me no unpleasure or pain, if I am easy and content without it, then I have no *desire* for it and don't try to get it. All I have is a bare *velleity*: this term is used to signify the lowest degree of desire, next door to the state of total indifference; in velleity there is so little unpleasure caused by the absence of x that it takes a man no further than a faint wish for x without doing anything to get it. A person's uneasiness about x may be removed or soothed by his believing that x *cannot* be had, and in that case desire is stopped or lessened. I should add that these remarks about uneasiness [French *inquiétude*] come from Locke. I have been in some difficulty about what the English word 'uneasiness' signifies; but the able French translator remarks in a footnote that Locke uses this word to designate the state of a man who isn't at his ease—a lack of ease or tranquillity in the soul, the latter being in this respect purely passive; and that he had to translate it by *inquiétude*, which doesn't express exactly the same idea but which comes closest to doing so. This warning is especially necessary, he adds, in connection with the next chapter, on Power, where this kind of *inquiétude* plays a large role in the argument; for if one didn't associate the word with the idea just indicated, one couldn't properly understand the contents of that chapter, which are the subtlest and most important in the whole work.

Theo: The translator is right. As I have seen from reading Locke for myself, this treatment of *inquiétude* is an important matter in which the author makes especially evident the depth and penetration of his mind. So I have given it some thought; and after thorough reflection I am now almost

inclined to think that the word *inquiétude*, even if it doesn't express very well •what Locke has in mind, nevertheless fits pretty well •the nature of the thing itself, and that the term 'uneasiness'—if that indicated an unpleasure, an irritation, a discomfort, in short an actual suffering—wouldn't fit it. For I would rather say that a desire in itself involves only a disposition to suffering, a preparation for it, rather than suffering itself. It's true that this perception sometimes differs only in degree from what is involved in suffering; but it is of the essence of suffering to be of a certain degree, for it is a notable perception. (It is the same with the difference between appetite and hunger: when the disturbance of the stomach becomes too strong it causes discomfort, •thus ratcheting appetite up to the state of hunger•.) So this is another case requiring my doctrine about perceptions that are too tiny for us to be aware of them; for if what goes on in us when we have appetite and desire were sufficiently amplified, it *would* cause suffering. That is why •God•, the infinitely wise author of our being, was acting in our interests when he brought it about that we are often ignorant and subject to confused perceptions—so that we can act the more quickly by instinct, and not be troubled by excessively distinct sensations of hosts of objects which, though they are necessary to nature's plan, aren't entirely agreeable to us. How many insects we swallow without being aware of it, how many people we observe who are troubled by having too fine a sense of smell, and how many disgusting objects we would see if our eyesight were keen enough! By the same device, nature has given us the spurs of desire in the form of the rudiments or elements of suffering, semi-suffering one might say, or (to put it extravagantly just for the sake of emphasis) of tiny little sufferings of which we can't be aware. This lets us enjoy the advantage of evil without enduring its inconveniences; for otherwise, if this perception were

too distinct, one would always be miserable when looking forward to something good; whereas our continual victory over these semi-sufferings—a victory we feel when we follow our desires and somehow satisfy this or that appetite or itch—provides us with many semi-pleasures; and the continuation and accumulation of these. . . . eventually becomes a whole, genuine pleasure. In fact, without these semi-sufferings there would be no pleasure at all, nor any way of being aware that something is helping and relieving us by removing obstacles that stand between us and our ease. . . . This account of tiny aids, imperceptible little escapes and releases of a thwarted endeavour, which finally generate notable pleasure, also provides a somewhat clearer knowledge of our inevitably confused ideas of pleasure and of pain; just as the sensation of warmth or of light results from many tiny motions that, as I said earlier (viii.13), express the motions in objects, and only *appear* to be different from them, simply because we aren't aware of this analysed multiplicity. As against this view, some contemporaries believe that

our ideas of sensible qualities differ entirely from motions and from what occurs in the objects, and are something primary and unexplainable and even arbitrary; as though God had made the soul sense whatever he had a whim that it should sense, rather than whatever happens in the body

—which is nowhere near the right analysis of our ideas. But to return to *disquiet*, i.e. to the imperceptible little urges that keep us constantly in suspense: these are confused stimuli, so that we often don't know what it is that we lack. With inclinations and passions, on the other hand, we at least know what we want; though confused perceptions come into their way of acting too, and though passions give rise further to the disquiet or itch that is under discussion. These impulses are like so many little springs trying to unwind and

so driving our machine along. And I have already remarked that that's why we are never evenly balanced, even when we appear to be most so, as for instance over whether to turn left or right at the end of a lane. For the choice that we make arises from these insensible stimuli. They mingle with the effects of outer objects and other events in our bodily interiors, making us find one direction of movement more comfortable than the other. In German, the word for the balance of a clock is *Unruhe*—which also means 'disquiet'; and we can take that for a model of how it is in our bodies, which can never be perfectly at their ease. For if one's body *were* at ease for a moment, some new effect of objects—some small change in the sense-organs, and in the viscera and bodily cavities—would at once alter the balance and compel those parts of the body to exert some tiny effort to get back into the best state possible; with the result that there is a perpetual conflict that makes up, so to speak, the disquiet of our clock; so that this German label is rather to my liking.

Phil: 7 *Joy* is a delight that the soul gets from the thought of the present possession of a good or the approach of a future good. To 'possess' a good is to have it in our power in such a way that we can use it when we please.

Theo: Languages don't have terms that are specific enough to distinguish neighbouring notions. Perhaps this definition of 'joy' comes nearer to the Latin *gaudium* than to *laetitia*. The latter is also translated as 'joy', but then joy appears to me to signify a state in which pleasure predominates in us; for during the deepest sorrow and amidst sharpest anguish one can have some pleasure, e.g. from drinking or from hearing music, although unpleasure predominates; and similarly in the midst of the most acute agony the mind can be joyful, as used to happen with martyrs.

Phil: 8 Sorrow is a disquiet of the soul from the thought of a lost good that might have been enjoyed longer; or of being tormented by a present evil.

Theo: Sorrow can be brought on not only by a present evil but also by the fear of a future one; so I think that the definitions I have just given of joy and sorrow are more true to common usage. Suffering involves more than mere disquiet, and so sorrow does also. Also, there is disquiet even in joy, for joy makes a man alert, active, and hopeful of further success. . . .

Phil: 9 Hope is the contentment of the soul that thinks of a probable future enjoyment of a thing that is likely to delight it. **10** Fear is a disquiet of the soul coming from the thought of future evil that may occur.

Theo: If 'disquiet' signifies an unpleasure (·which it does for you·), I grant that it always accompanies •fear; but taking it ·in my sense, as standing· for that undetectable spur that urges us on, it is also relevant to •hope. The Stoics took the passions to be beliefs: thus for them hope was the belief in a future good, and fear the belief in a future evil. But I would rather say that the passions aren't contentments or unpleasures ·on the one side· or beliefs ·on the other·, but *endeavours*. . . .that *arise from* beliefs or opinions and *are accompanied by* pleasure or unpleasure.

Phil: 11 Despair is the thought of some good thing as unattainable; it can cause •distress and sometimes causes •lassitude.

Theo: Despair, viewed as passion, will be a kind of strong endeavour that is utterly thwarted, resulting in violent conflict and much •unpleasure. But when the despair is accompanied by •lassitude and inactivity, it will be a belief rather than a passion.

Phil: 12 Anger is the disquiet or upset that we feel when we receive an injury, accompanied by a present desire for revenge.

Theo: Anger seems to be something simpler and more general than that, since it can occur in beasts, which can't be subjected to injury. [Locke used 'injury' to mean what we mean by it; his translator used the French *injure*, which Leibniz understood in its normal meaning of 'insult'.] Anger involves a violent effort to rid oneself of an evil. The desire for vengeance can remain when one is cool, and when the emotion one has is hatred rather than anger.

Phil: 13 Envy is the disquiet (the unpleasure) of the soul that comes from the thought of something good that we desire being obtained by someone who we think shouldn't have had it before us.

Theo: According to that notion of it, envy would always be a commendable passion, and would always be legitimate, at least in one's own opinion. But I suspect that envy is often directed towards someone else's acknowledged *merit*. . . . One may even envy people's having something good that one wouldn't care to have for oneself: one would merely like to see them deprived of it, without thought of getting it for oneself—and even with no possible hope of getting it, for some goods are like wall-paintings, which can be destroyed but can't be moved.

Phil: 17 Most of the passions in many people cause various changes in the body, not always ones that can be sensed. For instance, shame, which is a disquiet of the soul that one feels on the thought of having done something that is indecent or will lessen the esteem that others have for us, isn't always accompanied by blushing.

Theo: If men were more thorough in observing the overt movements that accompany the passions, it would be hard to disguise them. As for shame, it is worth thinking about

the fact that modest people sometimes feel agitations like those of shame merely on *witnessing* an indecent action.

Chapter xxi: Power and freedom

Philaethes: 1 The mind •notices how one thing goes out of existence and how another comes into existence, •concludes that in the future similar things will be produced by similar agents, •has the thought of one thing's ability to have its simple ideas [here = 'qualities'] changed and of another's ability to make that change—and in that way the mind •comes by the idea of *power*.

Theophilus: If power corresponds to the Latin *potentia*, it is contrasted with *act*, and the transition from power into act—from being able to do something to actually *doing* it—is change. . . . Power in general, then, can be described as the possibility of change. But since change—or the making-actual of that possibility—is •action in one thing and •passion [= 'being acted on'] in another, there will be *two* powers, one active and one passive. The active power can be called a 'faculty', and the passive one might be called a 'capacity' or 'receptivity'. It is true that 'active power' is sometimes understood in a fuller sense, in which it implies not just a mere •faculty but also an •endeavour ·or •effort·; and that's how I understand it in my theorizing about dynamics. One could reserve the word 'force' for that. *Force* divides into *entelechy* and *effort*. 'Entelechy' is Aristotle's word, and he gives it a very general meaning in which it covers all action

and all effort; but it seems to me more suitable to apply 'entelechy' to primary ·or basic· acting forces, and 'effort' to derivative ones.

When an entelechy—i.e. a primary or substantial endeavour—is accompanied by perception, it is a soul. And ·it's not only 'active power' that divides into two; the same holds for 'passive power'·. There is a kind of passive power that is more special ·than the one you speak of, and· that carries more reality with it. It's a power that matter has, for matter has not only •mobility (i.e. the ability to be moved, ·which is your kind of passive power·) but also •resistance, which includes both impenetrability and inertia.

Phil: 3 The idea of power expresses something relative—but then which of our ideas doesn't? Consider our ideas of extension, duration and number: don't they all contain in them a secret relation of the parts? Shape and motion even more obviously have something relative in them; and as for sensible qualities [here = 'secondary qualities'], ·they are doubly relative·: what they *are* are powers that various bodies have in relation to our perception; and what they *depend on* are relations amongst the bodies' parts—relations that we express by speaking of their bulk, shape, texture and motion of the parts. So our idea of power, I think, may

well have a place amongst other simple ideas.

Theo: The ideas that you have just listed are basically ·not simple but· composite. •Those of sensible qualities retain their place among the simple ideas only because of our ignorance ·of their real complexity·. The others, of which we have clear knowledge, are called ‘simple’ merely as a courtesy title—one that they shouldn’t be given. It is somewhat like our way of counting as ‘axioms’—meaning *basic* truths—commonly accepted principles that could be and should be demonstrated along with the rest of the theorems. This polite false-labelling does more harm than you might think, though admittedly we aren’t always in a position to avoid it.

Phil: 4 If you think hard about it, you’ll see that we don’t get as clear and distinct an idea of active power from •bodies through our •senses as we get from •the operations of our minds through •reflection. I think there are only two sorts of action of which we have any idea—namely •thinking and •moving. Bodies give us no idea at all of thinking; for an idea of that we must go to reflection. And bodies give us no idea of the beginning of motion.

Theo: These are very good points. You use the word ‘thinking’ ·more broadly than I would, taking it· so generally that it covers all perception; but I don’t want to quarrel about the use of words.

Phil: When a body is moving, this motion is an action on its part rather than a passion; but when a ball obeys the stroke of a billiard-cue, the ball doesn’t *act* but is merely *acted on*.

Theo: There is something to be said about that, namely that bodies wouldn’t receive motion with the stroke, in conformity to the laws they are observed to obey, unless they already

contained motion within themselves; but let us not dwell on that point now.

Phil: Similarly, when the moving ball y bumps into another ball z and starts it moving, all y does is to communicate [here = ‘passes along’] to z the motion it has previously received from something else x, and y loses as much motion as z receives.

Theo: This erroneous opinion that bodies lose as much motion as they give, which was made fashionable by the Cartesians, is now refuted by experiment and by theoretical considerations; and it has been abandoned even by the distinguished Malebranche, who published an article just for the purpose of retracting it. But I see ·from Locke’s performance· that the view can still mislead able people into building their theories on ruinous foundations.

Phil: The transfer of motion gives us only a very obscure idea of an active power of moving in body, when all we observe is motion being *transferred*, not *produced*.

Theo: I am not sure whether you are contending that motion passes from thing to thing—i.e. that the numerically same motion is taken across, ·so that the basic truth about the collision is not merely that

z comes to move more while y moves less,
but that

z comes to have some of *the very same movement* that
y had before the collision·.

I do know that some people have gone that way, . . . but I doubt that this is your view or that of your able friends, who usually stay well clear of such fantasies. However, if the very same motion *doesn’t* go across, it must be admitted that a new motion is produced in z, and so y is truly active, although at the same time it passively undergoes a loss of force. For although it isn’t true that a body always loses as

much •motion as it gives, it does always lose some motion, and it always loses as much •force as it gives, as I have explained elsewhere. Thus, we must always allow that it has force or active power, taking ‘power’ in the more elevated sense that I explained a little way back, in which there is effort as well as faculty = possibility. I still agree with you, though, that the clearest idea of active power comes to us from the mind. So •active power occurs only in things that are analogous to minds—i.e. in *entelechies*—for strictly matter exhibits only •passive power.

Phil: 5 We find in ourselves a power to begin or not begin, to continue or end, various actions of our soul and movements of our bodies, merely by a thought or preference of our mind when it commands (as it were) the doing or not doing of the action in question. This power is what we call ‘the will’, and the actual exercise of it is called ‘volition’. When someone does something (or doesn’t do it) because of such a command of the soul, his doing it (or not doing it) is called ‘voluntary’. And any action that is performed without such a direction of the soul is called ‘involuntary’.

Theo: That all strikes me as sound and true. However, to speak more directly and perhaps to go a little deeper, I shall say that *volition* is the effort or endeavour to move towards what one finds good and away from what one finds bad, the endeavour arising immediately out of one’s awareness of those things. This definition has as a corollary the famous axiom that

From will and power together action follows;

because any endeavour results in action unless it is prevented. So it isn’t only the voluntary inner acts of our minds that follow from this endeavour, but outer ones as well, i.e. voluntary movements of our bodies, thanks to the union of

body and soul that I have explained elsewhere. There are other efforts, arising from perceptions that we aren’t aware of; I prefer to call these ‘appetitions’ rather than ‘volitions’, because the labels ‘voluntary’ and ‘volition’ are customarily applied only to actions one can be aware of—ones that are accessible to reflection when some consideration of good and bad comes up. . . .

Phil: The power of perceiving is what we call ‘understanding’: there is the perception of •ideas, the perception of •the signification [here = ‘meanings’] of signs, and the perception of •the agreement or disagreement between any •two• of our ideas.

Theo: We are *aware of* many things, within ourselves and around us, that we don’t *understand*. We understand them when we have clear ideas of them accompanied by the power to •reflect and to •derive necessary truths from those ideas. That is why the beasts have no understanding, at least in this sense; although they are capable of being aware of the more conspicuous and outstanding impressions. . . . So understanding in my sense is what in Latin is called *intellectus*, and the exercise of this faculty is called ‘intellection’, which is

a distinct perception combined with an ability to reflect,

which the beasts don’t have. Any perception that is combined with this ability is a *thought*, and I don’t think that beasts have thought any more than they have understanding. So one can say that intellection occurs when the thought is clear. A final point: the perception of the •signification of signs doesn’t need here to be distinguished from the perception of the •ideas that are signified.

Phil: 6 In ordinary usage, the understanding and the will are two ‘faculties’ of the soul, and that word is proper enough if it

is used (as all words should be) with a care not to breed any confusion in men's thoughts—as I suspect *has* happened in this matter of the 'faculties' of the soul. When we are told that

the will is the superior faculty of the soul that rules and commands all things,
the will is free (or isn't free),
the will determines the inferior faculties, and
the will follows the dictates of the understanding,

though these turns of phrase may be understood in a clear and distinct sense, I'm afraid they have misled many people into a confused idea of a person's *will* not as a power that he has, but as an independent agent acting within him.

Theo: Are the soul's faculties distinct things from the soul itself? And is one faculty a distinct thing from another faculty? The scholastics have worried away at this for years. The realists have said Yes to both questions, and the nominalists have said No; and the same question has been debated concerning the reality—the status as *things*—of various other abstract beings that must stand or fall with faculties. But I don't think that we need here plunge into the brambles in an attempt to settle this question, despite the fact that Episcopius, I remember, attached such importance to it that he thought that if the faculties of the soul were *things* then human freedom would be untenable. However, even if they were distinct things, it would still be extravagant to speak of them as real *agents*. Faculties or qualities don't act; rather, substances act through faculties.

Phil: 8 So far as a man has the power to think or not think, to move or not move, according to the preference or direction of his own mind, to that extent he is free.

Theo: The term 'freedom' is highly ambiguous. There is freedom in law, and freedom in fact. In law, a slave is not

free and a subject is not entirely free; but a poor man is as free as a rich one. Freedom in fact, on the other hand, consists either in the power to do what one wills or in the power to will as one should. Your topic is *freedom to do*, and there are different degrees and varieties of this. Speaking generally, a man is **free to do what he wills** in proportion as he has the means to do so; but there is also a special meaning in which freedom is a matter of having the use of things that are customarily in our power, and above all with the free use of our body; and so prison and illness, which prevent us from moving our bodies and our limbs as we want to and as we ordinarily can, detract from our freedom. It is in that way that a prisoner isn't free, and that a paralytic doesn't have the free use of his limbs. The **freedom to will** is also understood in two different senses: one of them stands in contrast with the imperfection or bondage of the mind, which is an imposition or constraint, though an inner one like that which the passions impose; and the other sense is employed when freedom is contrasted with necessity. Employing the former sense, the Stoics said that only the wise man is free; and one's mind is indeed not free when it is possessed by a great passion, for then one can't will as one should, i.e. with proper deliberation. It is in that way that God alone is perfectly free, and that created minds are free only in proportion as they are above passion; and this is a kind of freedom that pertains strictly to our understanding. But the freedom of mind that is contrasted with necessity pertains to the bare will, in so far as this is distinguished from the understanding. It's what is known as 'free will': it consists in the view that

the strongest reasons or impressions that the understanding presents to the will don't prevent the act of the will from being contingent, and don't confer on it an absolute or (so to speak) metaphysical necessity.

It is in this sense that I always say that the understanding can determine the will. . . . in a manner that, although it is certain and infallible, inclines without necessitating.

Phil: 9 It is worth noting that no-one takes a tennis-ball to be a free agent when it is moving after being struck by a racquet or when it is lying still on the ground. That's because we don't think of a tennis-ball as thinking or as having any volition that would make it prefer motion to rest.

Theo: If •acting without impediment were enough to make a thing •free, then a ball that had been set in motion along a smooth trajectory *would* be a free agent. But Aristotle has rightly said that we aren't prepared to call an action 'free' unless as well as being unconstrained it is also deliberate.

Phil: That is why the ball's motion and rest fit our idea of what is *necessary*.

Theo: The term 'necessary' should be handled just as warily as 'free'. This conditional truth—

If the ball is in motion in a smooth trajectory without any impediment, it will continue the same motion—may be regarded as in a way necessary. But this non-conditional proposition—

This ball is now in motion in this plane—is an entirely contingent truth, and in this sense the ball is a contingent unfree agent. (Actually, the conditional proposition ·isn't strictly necessary, because it· depends not just on geometry but also on an assumption ·about a theological matter of fact·. It is based on the wisdom of God, who doesn't change his influence—·e.g. changing the trajectory of the ball—unless he has some reason to do so, and there is assumed to be no such reason in the case in question.)

Phil: 10 Suppose that a sleeping man is taken into a room

where there is someone he has been anxious to see and speak with, and the door is then locked; he wakes up, is glad to find himself with this person, and thus remains in the room with pleasure. I think it is obvious that he stays there •voluntarily; and yet he isn't •free to leave if he wants to. So that liberty ·or freedom· is not an idea belonging to volition.

Theo: This strikes me as a most apt example for bringing out that there is a sense in which an action or state can be voluntary without being free. Still, when philosophers and theologians dispute about 'free will' they have a quite different sense in mind.

Phil: 11 If paralysis hinders someone's legs from obeying the commands of his mind, there is a lack of •freedom; yet as long as the paralytic *prefers* sitting still to walking away, his sitting may be •voluntary. So •'voluntary' is opposed not to •'necessary' but to •'involuntary'.

Theo: This preciseness of expression would suit me well enough, but it doesn't fit ordinary usage. And when people contrast •freedom with •necessity they mean to talk not about ·the freedom of· outer actions but about ·the freedom of· the very act of willing.

Phil: 12 When a man is awake, it's not up to him whether he thinks or not, any more than it's up to him whether he does or doesn't prevent his body from touching another body. But he can often choose whether to think about *this* rather than *that*, and at those times he is at liberty in respect of his ideas; just as he is at liberty in respect of where he stands, when he can choose whether to stand *here* or *there*. But some ideas. . . . are so fixed in the mind that in certain circumstances it can't get rid of them, however hard it tries. A man on the rack isn't at liberty to set aside the idea of pain; and sometimes a boisterous passion hurries our mind, as a hurricane does our bodies.

Theo: Thoughts are ordered and interconnected, as motions are, for the one corresponds perfectly to the other. This correspondence holds despite the fact that

motions are determined in a •blindly compelling manner,

whereas

thoughts are determined in a manner that is •free, i.e. accompanied by choice.

A thinking being isn't *forced* by considerations of good and bad, but only *inclined* by them. For the soul keeps its perfections while representing the body; and although in involuntary actions the mind depends on the body, in voluntary actions the dependence runs the other way—the body depends on the mind. But this dependence is only a •metaphysical one, which comes down to this:

x depends on y if and only if God takes account of y when he assigns x its life history ·and settles y without taking x into account·, or takes *more* account of y in settling x than he does of x in settling y.

Which one God takes (more) account of depends on which one is inherently more perfect. If the dependences between mind and body were •physical [here = 'real, causal'] dependence, there would be an immediate ·causal· influence that the dependent one would receive from the other. A further point: involuntary thoughts come to us partly from •outside us through objects affecting our senses, and partly from •within, as a result of the (often undetectable) traces left behind by earlier perceptions that continue to operate and mingle with new ones. We are passive in this respect; and even while awake we are visited by images—which I take to include representations not only of shapes but also of sounds and other sensible qualities—which come to us unbidden, as in dreams. . . . It's like a magic lantern with which one can make figures appear on the wall by turning something on

the inside. But our mind on becoming aware of some image that occurs in it can say Stop! and bring it to a halt, so to speak. What is more, the mind embarks as it sees fit on certain trains of thought that lead it to others. But that applies when neither kind of impression—those from within or those from without—has the upper hand. People differ greatly in this respect, according to their temperaments and to the use they have made of their powers of self-control; so that one person may be able to rise above impressions by which another would be swept along.

Phil: 13 Wherever there is no thought, there is necessity. When this occurs in an agent who is *capable of* volition, we get what I call 'constraint', namely

some action of his is begun or continued contrary to the preference of his mind,

or what I call 'restraint', namely

some action is hindered or stopped contrary to his volition.

Agents that have no thought, no volition at all, are necessary agents all the time.

Theo: It seems to me that even though volitions are contingent, strictly speaking necessity should be contrasted not with volition but with contingency, as I have already pointed out in 9. And determination shouldn't be confused with necessity: there is just as much connection or determination among thoughts as among motions (since being determined isn't at all the same as being forced or pushed in a constraining way). If we don't always notice the reason that determines us, or rather by which we determine ourselves, that's because we can't •be aware of all the workings of our mind and of its usually confused and imperceptible thoughts, any more than we can •sort out all the mechanisms that nature puts to work in bodies. If by 'necessity' we understood

a man's being inevitably determined, so that his behaviour could be predicted by a perfect mind that had complete knowledge of everything going on outside and inside that man,

then indeed every free act *would* be necessary, because thoughts *are* as determined as the movements they represent. But we should distinguish what is •necessary from what is •contingent though determined. Not only are contingent truths not necessary, but the links between them aren't always absolutely necessary either: when one thing follows from another in the contingent realm, the kind of determining that is involved isn't the same as when one thing follows from another in the realm of the necessary. Geometrical and metaphysical 'followings' •necessitate, but physical and moral ones •incline without necessitating. Even the physical realm involves a moral and voluntary element because of its relation to God: the laws of motion are •laws because God *chooses* that they shall be laws; so they are necessitated only by what is best—for God always chooses the best, and is determined to do so although he chooses freely. Bodies don't choose for themselves, because God has chosen for them; so in common usage they have come to be called 'necessary' agents. I have no objection to this, provided that no-one confuses the •necessary with the •determined and goes on to suppose that free beings act in an undetermined way, •so that even a perfectly and perfectly well-informed mind couldn't predict their behaviour. This error has prevailed in certain minds, and destroys the most important truths, even the basic axiom that **nothing happens without a reason**, which is needed if we are properly to demonstrate the existence of God and other great truths. As for 'constraint': it is useful to distinguish two sorts of constraint. There is •physical constraint, as when a man is imprisoned against his will or thrown off a precipice; and

there is •moral constraint, as for example •when someone acts in a certain way because of his •fear of a greater evil. In a case of moral constraint, although the action is in a way •compelled, it is nevertheless •voluntary. One can also be compelled by the thought of a greater good, as when a man is tempted by the offer of a benefit that is so great that he can't resist, though this isn't usually called 'constraint'.

Phil: 14 Let us see if we can't now put an end to the question of whether a man's will is free or not. The question has been debated for ages, but I think it's an unreasonable question—unreasonable because unintelligible!

Theo: There is good reason to exclaim at the strange behaviour of men who torment themselves over misconceived questions. . . .

Phil: Liberty is a *power*, and only agents—•things• that *act*—can have it. The will can't have liberty—•can't be free—because the will is itself •not a thing but• only a power.

Theo: You are right, if the words are used properly. Still, the common way of talking •about freedom of the will• can be defended in a fashion. Asking whether a man's will is free is a way of asking whether a man is free when he wills. This is like saying 'Heat has the power to melt wax' meaning that if a body is hot *it* has the power to melt wax.

Phil: 15 Liberty •or freedom• is the power a man has to do or not-do any action according to what he wills to do.

Theo: If that were all that people meant by 'freedom' when they ask if the will or choice is free, then the question *would* be truly absurd, •as you say it is•. But we shall soon see what they are really asking, and indeed I have already touched on it. It's true that what they are asking for—many of them at least—*is* indeed absurd and impossible, but for a reason different from the one you have given. It is because they

are asking for an utterly imaginary and futile *freedom of equilibrium*, which would be no use to them even if it were possible for them to have it; having it would be having the ‘freedom’ to will contrary to all the impressions that may come from the understanding; which would *destroy* true liberty, and destroy reason along with it, and would bring us down below the beasts.

Phil: 17 People have often said things like this:

The will directs the understanding, and the understanding does or doesn’t obey the will.

This is as improper and unintelligible as saying:

The power of speaking directs the power of singing, and the power of singing does or doesn’t obey the power of speaking.

·In each case, the absurdity lies in talking about a *power* as though it were an active *thing*. **18** Yet this way of talking about ‘the will’ has become common, and I think it has produced great confusion. In fact, the •power of thinking doesn’t act on the •power of choosing, or vice versa, any more than the •power of singing acts on the •power of dancing.

19 I grant that this or that thought may provide the *occasion* for a man to exercise his power to choose; and that the choice of his mind may be the cause of his actually having this or that thought, just as the actual singing of this tune may be the occasion of someone’s dancing that dance.

Theo: Rather more is involved here than the providing of *occasions*: there is also an element of dependence between a thought and a choice. [Both men here use the word ‘occasion’ in a special sense that had been common among philosophers. It was rooted in the idea that nothing can *cause* God to do anything but that events in the created world may give God the ‘occasion’ to act in a certain way. This was supposed to create reliable correlations between worldly events and God’s actions, without attributing to God the slightest passivity or

being-acted-on or—using Theophilus’s word—dependence.] For we can only will what we think good, and the more developed the faculty of understanding is the better are the choices of the will. . . .

Phil: 21 The right question to ask is not ‘Is the will free?’ but ‘Is the man free?’ And my answer to *that* is:

A person is free to the extent that he can, by the direction or choice of his mind, prefer the occurrence of some action to its non-occurrence or vice versa, so that the action occurs or doesn’t occur according to what he wills.

We’ll be hard put to it to imagine anyone being freer than *to be able to do what he wills*. Thus, with respect to any action that is within the reach of that power in a man—i.e. any action that he can perform if he wants to—the man seems to be as free as freedom can make him, if I may so put it.

Theo: In reasonings about the freedom of the will, or about free will, the question is not *Can a man do what he wills to do?* which raises the question of •whether his legs are free and or •whether he has room to move about. Rather, the question is *How independent is his will?* which asks •whether he has a free mind and what that consists in. With ‘freedom’ thus understood as freedom of the mind, intellects will differ in how free they are, and God’s supreme intellect will possess a perfect freedom of which created beings are not capable.

Phil: 22 But the busy minds of men, who want to clear themselves as far as they can from all thoughts of guilt (even if they do it by putting themselves into a worse state than that of utter inevitable necessity), aren’t content with this ·view that a man is free so long as there are no obstacles to his doing what he wills to do·. Unless there is more to freedom than *that*, they aren’t satisfied ·because by that

standard they have been acting freely in all their wicked actions. They think that the plea ‘I wasn’t free when I did x’ holds good unless the man was not only •free to do what he willed but also •free to will. **23** As to that, I think that once an action that is in a man’s power has been proposed to his mind, he can’t be free in respect of a particular act of willing regarding it. The reason for this is clear: •it is unavoidable that the action depending on his will either *will* occur or *won’t* occur; and •its occurrence or non-occurrence has to follow perfectly the determination and choice of his will; so •he can’t avoid willing the occurrence or non-occurrence of that action.

Theo: I should have thought that we can and very frequently do suspend choice, particularly when other thoughts break into our deliberations. So that, although the action about which we are deliberating must occur or not occur, it doesn’t follow that we must necessarily decide on its occurrence or non-occurrence; for its non-occurrence may come about because we *didn’t* decide.

Phil: To make a man free in this ·spurious· way we must make his act of the will depend on his will! So there must be another underlying will or faculty of willing, to determine the acts of this will, and yet another to determine *that*, and so on ad infinitum: for wherever one stops, the actions of the will one stops at cannot be free.

Theo: We certainly speak very incorrectly when we speak of willing to will. We don’t will to *will*, but rather will to *do*; and if we did will to will, we would will to will to will, and so on ad infinitum. Still, through our voluntary actions we often indirectly prepare the way for other voluntary actions; and although we can’t will what we want to, just as we cannot believe what we want to, we *can* act ahead of time in such a way that we shall eventually believe or will what

we would like to be able to believe or will today. We attach ourselves to people, reading material and ways of thinking that are favourable to a certain faction, and we ignore whatever comes from the opposite faction; and by means of these and countless other devices, which we usually employ unknowingly unwittingly with no set purpose, we succeed in deceiving ourselves or at least changing our minds, and so we achieve our own conversion or perversion depending on what our experience has been.

Phil: 25 Since it obviously isn’t up to a man whether he wills or not, the next question that is raised is: Is a man at liberty to will which of the two he pleases, e.g. moving or staying still? But this question is so obviously absurd that anyone who reflects on it might become convinced that liberty doesn’t concern the will. For to ask ‘Is a man at liberty to will either moving or staying still, speaking or keeping silent?’ is to ask ‘Can a man will what he wills, or be pleased with what he’s pleased with?’—a question that hardly needs an answer!

Theo: For all that, people *do* have a difficulty about this that deserves to be cleared up. They say that after everything is known and taken account of, it is still in their power to will not only •what pleases them most but also •the exact opposite, doing this just to show their freedom. But what has to be borne in mind is that even this whim or impulse—or at least this reason that prevents them following the other reasons—weighs in the balance and makes pleasing to them something that would otherwise not be; so that their choice is always determined ·by their total state of mind·. . . . Since men mainly fail to sort out all these separate considerations, it isn’t surprising that they are in such a muddle about this question, with all its hidden twists and turns.

Phil: 29 To the question ‘What determines the will?’ the true and proper answer is ‘The mind’. If this doesn’t answer the

question, the questioner must have meant to ask:

What moves the mind in each particular instance to exert its general power of directing how the body moves, in such a way that the body moves just precisely thus or so?

My answer to *that* is: What makes us •continue in the same state or action is only our present •satisfaction in it; what moves us to •change is always some •disquiet.

Theo: As I showed in the preceding chapter, this disquiet isn't always an unpleasure, just as one's state of ease isn't always a satisfaction or a pleasure. Often it is an insensible perception—one that we can't discern or single out—which makes us lean one way rather than the other without being able to say why.

Phil: **30** Will and desire shouldn't be confused: a man •desires to be relieved of the gout, but he realizes that removing the pain may force the poison over into some more vital part of his system, so he doesn't ever •will any action that might serve to remove this pain.

Theo: Such a desire is a kind of velleity—a half-strength volition—as contrasted with a complete volition. When that occurs, the person *would* will if he weren't afraid of incurring a greater evil (or perhaps losing a greater good) through getting what he wants. We could say that your man *does* will to be rid of his gout, doing so with a certain intensity of volition but not one that ever rises to full strength. . . .

Phil: **31** It is as well to bear in mind that what determines the will to action is *not* (as is generally supposed) •the greater good, but rather some •disquiet—usually the most pressing disquiet. This can be called desire, which is a disquiet of the mind caused by the lack of some absent good—or the desire to be relieved of pain. It is *not* the case that someone's

lacking a good always causes him pain proportional to how great the good is or how great he thinks it is, because the lack of a good *isn't* always an evil, and therefore absent good can be thought about without pain. On the other hand, all pain causes a desire that is intense in proportion as the pain is great, because the presence of pain *is* always an evil. . . .

And whenever there is any strength of desire, there is an equal strength of disquiet. **34** When a man is perfectly •content with the state he is in, which is when he is perfectly •free of all disquiet, what is left for him to will except to continue in this state? That is why •God, our all-wise Maker, has put into man the discomforts of hunger and thirst and other natural desires—to move and determine their wills for their own individual preservation and the survival of their species. **35** As for the maxim that

What determines the will is good, the greater good,

this seems to be so established and settled that I'm not in the least surprised that I used to take it for granted. But when I look into it carefully, I'm forced to conclude that even when we know and admit that that something *is* the greater good, our will is not determined by it until our desire for it. . . . makes us *unquiet* from the lack of it. Take a man who is utterly convinced of the advantages of •virtue and knows that it is necessary for anyone who has any great aims in this world or hopes for the after-life; until he 'hungers and thirsts after righteousness' his will won't be aimed at any action in pursuit of •this excellent good; and any other disquiet that gets in the way of his pursuing virtue will drive his will in other directions. On the other side, take a drunkard who sees that his health is decaying, that he is moving towards poverty, and that the course he is following will lead to discredit and diseases and the lack of everything—even of his beloved drink. Despite all this, when his disquiet from missing his companions becomes

strong enough it drives him to the tavern at his usual time, even though he can see the prospect of losing health and wealth and perhaps of the joys of the after-life—joys that he can't regard as inconsiderable, and indeed admits are far better than the pleasure of drinking or the idle chat of a drinking club. Why does he persists in his dissolute ways? Not because he doesn't see what is best! He *does* •see it, and •admits its excellence; and at times between his drinking hours he •resolves to pursue this greatest good; but when the disquiet from missing his accustomed delight returns to torment him, the good that he admits is better than the good of drinking loses its hold on his mind, and the *present disquiet* determines the will to the accustomed action. . . . And thus he is sometimes reduced to saying 'I see and esteem the better; I follow the worse' [quoted from Ovid]. We all know from experience that people often see the better and follow the worse; my account in terms of 'disquiet' lets us see *how* this can happen—and there may be no other account that does so.

Theo: There is merit and substance in these thoughts. Still, I wouldn't want them to encourage people to think they should give up the old axiom that

The will pursues the greatest good, and flees the greatest evil, that it can detect.

The main reason we neglect things that are truly good is that on topics and in circumstances where our senses aren't much engaged our thoughts are for the most part what I call 'blind thoughts'. I mean that they are empty of perception and sensibility, and consist in the wholly unaided use of *symbols*—like people doing algebraic geometry and mostly not attending to the geometrical figures that are being dealt with. Usually words are in this respect like the symbols of arithmetic and algebra. We often reason in •words, with the

•object itself virtually absent from our mind. This sort of 'knowledge' can't influence us—something livelier is needed if we are to be moved. Yet this is how people usually think about God, virtue and happiness; they speak and reason without explicit ideas. It's not that they *can't* have the ideas, for the ideas are there in their minds; the trouble is that they don't take the trouble to think their ideas through. Sometimes they have the idea of an absent good or evil, but only very faintly, so it's no wonder that it has almost no influence on them. Thus, if we prefer the worse it is because we have a sense of the good it contains but not of the evil it contains or of the good that exists on the opposite side. We assume and believe—or rather we tell ourselves, merely on the credit of someone else's word or at best of our recollection of having thought it all out in the past—that the greater good is on the better side and the greater evil on the other. But when we don't have them actively in mind, the •thoughts and reasonings that oppose our feelings are a kind of parroting that adds nothing to the mind's present contents; and if we don't take steps to improve •them they will come to nothing. . . . The finest moral precepts and the best prudential rules in the world have weight only in a soul that is as sensitive to them as to what opposes them—if not directly sensitive (which isn't always possible), then at least indirectly sensitive, as I shall explain shortly. . . . It isn't surprising that in the struggle between flesh and spirit it's so often spirit that loses, because it fails to make good use of its advantages. This struggle is nothing but the conflict between different endeavours—those that come from •confused thoughts and those that come from •clear ones. Confused thoughts often make themselves vividly sensed, whereas clear ones are usually only potentially vivid: they *could* be actually so, if we would only apply ourselves to getting through to the meanings of the words or symbols;

but since we are too rushed or too careless to do that, what we oppose lively feelings with are bare words or at best images that are too faint. . . . If the mind made good use of its advantages it would triumph nobly. The first step would have to be in education, which should be conducted in such a way that true goods and evils are made as thoroughly sensible as they can be, by clothing one's notions of them in details that are more appropriate to this end. And a grown man who missed this excellent education should still (better late than never !) begin to seek out •enlightened and rational pleasures to bring against the •confused but powerful pleasures of the senses. And indeed divine grace itself is a pleasure that brings enlightenment. Thus when a man is in a good frame of mind he ought to make for himself laws and rules for the future, and then carry them out strictly, drawing himself away—abruptly or gradually, depending on the nature of the case—from situations that are capable of corrupting him. A lover will be cured by a voyage undertaken just for that purpose; a period of seclusion will stop us from keeping company with people who reinforce our bad habits. . . . To dangerous interests we will oppose innocent ones like farming or gardening; we'll avoid idleness, we'll collect curiosities, both natural and artificial, we'll carry out experiments and inquiries, we'll take up some compelling occupation if we don't already have one, or engage in useful and agreeable conversation or reading. In short, we should take advantage of our good impulses to make effective resolutions, as though they were the voice of God calling us. Since we can't always *think through* the notions of true good and true evil far enough to see the pleasures and pains they involve, and thus be influenced by them, we must make this rule for ourselves once and for all:

Wait till you have the findings of reason and from then on follow them, even if you ordinarily have them

in mind only as 'blind thoughts' that are devoid of sensible charms.

We need this rule so as finally to gain control both of our passions and of our insensible inclinations, or disquiets, by getting the *habit* of acting in conformity with reason—a habit that makes virtue a pleasure and second nature to us. But it isn't my purpose here to offer and instil moral precepts, or spiritual procedures and skills for the practice of true piety. It will be enough if by thinking about how our souls operate we see the *source* of our frailties; knowledge of the •source provides knowledge of the •remedies.

Phil: 36 The only thing that acts on our will is our present disquiet. It *naturally* determines the will in pursuit of the happiness that we all aim at in all our actions, because everyone regards pain and uneasiness—i.e. the disquiet or rather discomfort that prevents us from being at our ease—as inconsistent with happiness, and as constituting a little pain that spoils all the pleasure we rejoice in. And so it's a matter of course that what determines the choice of our will regarding our next action will always be the removing of any pain that we have, as the first and necessary step towards happiness.

Theo: If you take uneasiness or disquiet to be a genuine unpleasure, then I don't agree that it's the only thing that spurs us on. What usually drives us are those tiny insensible perceptions that could be called *sufferings that we can't become aware of*, if it weren't for the fact that the notion of suffering involves awareness. These tiny impulses consist in our continually overcoming small obstacles—our nature works at this without our thinking about it. This is what is really going on in the disquiet that we sense without explicitly noticing it; it makes us act not only when we are worked up but also when we appear most calm—for we are never

without *some* activity and motion, simply because nature continually works to be more completely at ease. And it is what determines us also. . . .in the cases that appear to us the most evenly balanced between two courses of action, because we are *never* completely in equilibrium and can *never* be evenly balanced between two options. Now, if these *elements* of suffering. . . .were *real* suffering, we would be continually wretched as long as we pursued our own good restlessly and zealously. However, quite the opposite is the case. As I said earlier (xx.6), nature's accumulation of continual little triumphs, in which it puts itself more and more at ease—drawing closer to the good and enjoying the image of it, or reducing the feeling of suffering—is itself a considerable pleasure, often better than the actual enjoyment of the good. Far from such disquiet's being inconsistent with happiness, I find that it is essential to the happiness of created beings; their happiness never consists in complete attainment, which would make them insensate and stupefied, but in continual and uninterrupted progress towards greater goods. Such progress is inevitably accompanied by desire or at least by constant disquiet, but of the kind I have just explained: it doesn't amount to discomfort, but is restricted to the elements or rudiments of suffering, which we can't be aware of in themselves but which act as spurs to stimulate the will. That is what a healthy man's appetite does, unless it amounts to that discomfort which unsettles us and gives us a tormenting obsession with the idea of whatever it is that we don't have. These 'appetitions', whether small or large, are. . . .the first steps that nature makes us take; not so much towards •happiness in the long run• as towards •joy right now•, since in them one looks only to the present; but experience and reason teach us to govern and moderate them so that they can lead us to happiness. I spoke about this earlier (I.ii.3). Appetitions are like a stone's endeavour to

follow the shortest (perhaps not the best) route to the centre of the earth; it can't foresee that it will smash against rocks that it might have avoided, coming goal if, it had had the wit and the means to swerve aside. Similarly, by rushing straight at a present pleasure we sometimes fall into the abyss of misery. That is why reason opposes appetition with images of greater goods or evils to come, and with a firm policy and practice of thinking before acting and then standing by whatever is found to be best, even when the sensible grounds that lead to it are no longer present to the mind, and consist in little but faint images or even in the blind thoughts that are generated by words or signs that have no concrete interpretation. So it is all a matter of

•'Think about it carefully!'—making laws for oneself, and

•'Remember!'—so as to follow the laws even when we don't remember the reasons that first led us to them.

It is wise to keep those reasons in mind as much as possible, though, so that one's soul may be filled with rational joy and enlightened pleasure.

Phil: 37 These precautions are undoubtedly the more necessary since the idea of an absent good can't counterbalance any feeling of disquiet or unpleasure that is troubling us right now, until our lack of this good raises our desire. There are ever so many people •who have before their minds lively representations of the unspeakable joys of Heaven, which they acknowledge to be not merely possible but probable, and •who are nevertheless content to settle for happiness in *this* life. And so the disquiets of their present desires get the upper hand. . . .determine their wills to seek the pleasures of the present life—and all through this they are entirely insensitive to the good things of the life hereafter.

Theo: This is partly because men are often not really con-

vinced: whatever they may say, a secret doubt holds sway in the depths of their souls. They lack one or other of the two things that are required for real belief: either •they have never understood the sound reasons for believing in that immortality of the soul that is worthy of divine justice and is the basis of true religion; or •they no longer remember having understood those reasons. As for the future life as represented by true religion and even true reason, few people even think of as *possible*; so far are they from thinking it *probable*—let alone *certain*. Their thoughts about it are all mere parroting or else crude and shallow imagery, Moslem fashion—and they don't find much plausibility in the imagery, for they are far from being influenced by it. . . . Still, nothing would be more powerful than the truth if we set ourselves to know it thoroughly and to show it off to good advantage; without doubt there are ways of disposing men powerfully towards it. When I consider how great an effect •ambition and •greed have on anyone who has entered into that way of life—one almost entirely devoid of present sensible charms—I give up no cause for lost! Given that virtue is accompanied by so many substantial benefits, I think it would have infinitely more effect if some transformation in human kind at last brought virtue into favour—made it *fashionable*, so to speak. It's quite certain that young people could be made accustomed to getting their greatest pleasure from virtuous behaviour. And even grown men could make laws for themselves and make a practice of following them, so that they would •be strongly disposed to abide by them, and when deflected from them would •suffer as much disquiet as the drunkard suffers when prevented from going to the tavern! I'm pleased to add these thoughts about how such remedies for our ills are possible and even easily available, instead of helping to discourage men from pursuing true goodness by harping on their frailties.

Phil: It is almost entirely a matter of making them constantly desire the true good. **39** When we act •voluntarily there is usually some •desire involved, which is why the •will and •desire are so often run together ·as though they were the same thing·. But there is also some involvement of the disquiet that is a part, or at least a result, of most of the other passions. Aversion, fear, anger, envy, shame—each of these has its disquiet, through which it influences the will. I don't think that any of these passions exists simple and alone. Indeed, I think there is hardly any passion that doesn't have desire joined with it. Wherever there is disquiet there is desire, I am sure. As our eternity doesn't depend on the present moment, we look beyond, no matter what pleasures we are now enjoying; and desire goes with our foresight, carrying the will with it. So that even in joy itself, what keeps up the action on which the enjoyment depends is the •desire to continue the enjoyment and the •fear of losing it; and as soon as a greater disquiet than *that* takes hold of the mind, it immediately determines the mind to some new action, and the present delight is neglected.

Theo: Various perceptions and inclinations combine to produce a complete volition: it is the result of the conflict amongst them. •Some that are imperceptible in themselves add up to a disquiet that impels us without our seeing why. •Others join forces with one another and carry us towards or away from some object, in which case there is desire or fear, also accompanied by a disquiet but not always one amounting to pleasure or displeasure. Finally, •some impulses are accompanied by actual pleasure or suffering. All these perceptions are either new sensations or the lingering images of past ones (whether or not accompanied by memory): these images revive the charms that were associated with them in those earlier sensations, and that lets them also revive

the former impulses in proportion to how vividly they are imagined. The upshot of all these impulses is the *prevailing effort*, which makes a full volition. . . . So it's easy to see that volition can hardly exist without desire and without 'avoidance', which I suggest as a name for the opposite of desire. Disquiet occurs not merely in uncomfortable passions like

aversion, fear, anger, envy and shame,
but also in their opposites—

love, hope, calmness, generosity and pride.

It can be said that wherever there is desire there will be disquiet; but the converse doesn't always hold, since one is often in a state of disquiet without knowing what one wants, in which case there is no fully developed desire.

Phil: 40 The disquiet that determines the will to action is usually the most pressing one among all the disquiets that the person thinks are capable of being removed at that time.

Theo: Since the final result is determined by how things weigh against one another, I think that the most pressing disquiet won't always prevail; for even if it prevails over each of the contrary endeavours taken singly, it may be outweighed by all of them taken together. The mind can even avail itself of the *trick of dichotomies*, to make first one prevail and then another; just as in a meeting one can arrange the *order* in which questions are put to the vote in such a way as to ensure that the faction one favours will prevail by getting a majority of votes. The mind should prepare for this in advance, for once battle has been engaged there is no time left to make use of such tricks; everything that then impinges on us weighs in the balance and contributes to determining a resultant direction. . . .

Phil: 41 If you ask 'What moves desire?' I answer 'Happiness and nothing else'. Happiness and misery are the names

of two extremes; we don't know what either is like at its uttermost outer limit. . . .but of both we have lively impressions, made by various kinds of delight and joy, torment and sorrow. For brevity's sake I shall bring these under the names 'pleasure' and 'pain', because there are pleasures and pains of the mind as well as of the body. Actually, it would be more accurate to say that they are all of the mind, though some are caused in the mind by thoughts whereas others are caused in the body by movement of bits of matter. **42** Thus,

- all-out happiness is the utmost pleasure we are capable of,
- all-out misery is the utmost pain we are capable of, and
- minimal happiness, the weakest that can be called 'happiness' at all, is the pain-free state in which one enjoys a level of present pleasure such that one couldn't be content with less.

What is apt to produce pleasure in us we call 'good', and what is apt to give us pain we call 'evil'. Yet we often don't use those labels when one or other of those goods or evils comes into competition with a greater good or greater evil.

Theo: I doubt that a greatest pleasure is possible; I'm inclined to believe that pleasure can increase ad infinitum, for we don't know how far our knowledge and our organs may develop in the course of the eternity that lies before us. So I would think that happiness is a lasting pleasure, which can't occur without a continual progress to new pleasures. Thus of two people, one of whom progresses much faster and by way of greater pleasures than the other, each will be happy in himself although their happinesses will be very unequal. So we might describe happiness as *a pathway through pleasures*, with pleasure being only a single step: it

is the most direct move towards happiness that we can see right now, but it isn't always the best, as I said near the end of **36**. We can miss the right road by trying to follow the shortest one, just as the stone by falling straight down may encounter obstacles that prevent it from getting close to the centre of the earth. This shows that

reason and will are what lead us towards happiness, whereas sensibility and appetite lead us only towards pleasure.

Now, although 'pleasure' can't be given a nominal definition, any more than 'light' or 'heat' can, pleasure can—like light and heat—be defined causally. I believe that basically pleasure is a sense of perfection, and pain a sense of imperfection, each being notable enough for one to become aware of it. For the tiny insensible perceptions of some perfection or imperfection, which are as it were components of pleasure and of pain, constitute •inclinations and •propensities but not outright •passions. So there are **(1)** insensible inclinations of which we aren't aware. There are also **(2)** sensible ones: we are acquainted with their existence and their objects, but have no sense of how they are constituted; these are confused inclinations that we attribute to our bodies although there is always something corresponding to them in the mind. Finally there are **(3)** distinct inclinations that reason gives us: we have a sense both of their strength and of how they are constituted. Pleasures of this 'third' kind, which occur in the knowledge and production of order and harmony, are the most valuable. Locke is right to say that in general these inclinations, passions, pleasures and pains belong only to the mind or to the soul; to which I will add that although in metaphysical strictness the origin of each of them is in the soul, one is justified in saying that confused thoughts 'come from the body', because it is by considering the body and not by considering the mind that we can

discover something distinct and intelligible concerning them. *Good* is what provides or conduces to pleasure, as *evil* is what conduces to pain; but when we sacrifice a greater good to a lesser one that conflicts with it, the latter can become really an evil in so far as it contributes to the pain that must result.

Phil: 47 The soul has a power to suspend the satisfaction of any of its desires, and is thus at liberty to consider them one after another and to compare them. That is the liberty man that has, and all the various mistakes, errors and faults that we run into when we rush into making decisions comes from our not making proper use of this liberty. This, incidentally, is what is usually called 'free will'—I think wrongly.

Theo: Our attempt to satisfy our desire is suspended or prevented when the desire isn't strong enough to arouse us and to overcome the difficulty or discomfort involved in satisfying it. This difficulty sometimes consists merely in an insensible laziness or slackness that inhibits us without our paying any attention to it; it is greatest in people who were brought up lazy, or are temperamentally hard to stir, or are discouraged by old age or failure. Even when the desire is strong enough in itself to arouse us if nothing hinders it, it can be held back by contrary inclinations. . . . But as these contrary inclinations, propensities and desires must already exist in the soul, it doesn't have them within its power; and consequently it couldn't resist them in any free and voluntary way in which reason could play a part, if it didn't have another method, namely to turn the mind in a different direction. But how can we ensure that it occurs to us to do this whenever the need arises?—that is the problem, especially when one is in the grip of a strong passion. The solution is for the mind to be prepared in advance, and to be already stepping from thought to thought, so that it won't

be too much held up when the path becomes slippery and treacherous. It helps with this if one accustoms oneself in general to touching on certain topics only in passing, the better to preserve one's freedom of mind. Best of all, we should get used to proceeding methodically and sticking to sequences of thoughts for which reason. . . . provides the thread. It helps with this if one becomes accustomed to withdrawing into oneself occasionally, rising above the hub-bub of present impressions—as it were getting away from one's own situation and asking oneself 'Why am I here?', 'Where am I going?', 'How far have I come?', or saying 'I must come to the point, I must set to work!' Once we are in a position •to stop our desires and passions from taking effect, i.e. •to suspend action, we can find ways of fighting against them, either by contrary desires and inclinations or by diversion, that is by occupying ourselves with other matters. It is through these methods and tricks that we become masters of ourselves, and can bring it about that we have certain thoughts and that when the time comes we'll will according to our present preference *and* according to reason's decrees. However, this always takes place in determinate ways and never without reasons—never by the fictitious principle of total indifference or equilibrium. Some people would claim the latter to be the essence of freedom, as if one could determine oneself without reasons and even against all reasons, going directly contrary to the prevailing impressions and propensities. Without reasons, I say, i.e. •without other inclinations going the opposite way, •without being already in the process of turning the mind to other matters, and •without any other such intelligible means. If we allow this, we are resorting to chimeras. . . .in which there is neither rhyme nor reason. [Here and later, 'chimera' is used to mean 'wild and fanciful conception'.]

Phil: I too am in favour of this intellectual determination of the will by what is contained in perception and in the understanding. It's not a •fault but a •perfection of our nature to will and act according to the last result of a fair examination. **48** This is so far from being a •restraint or •lessening of freedom that it is •our freedom at its best; and the •further we are from that sort of determination, the •nearer we are to misery and slavery. If you suppose a perfect and absolute indifference in the mind, that can't be determined by its most recent judgment of good or evil, you will put it into a very imperfect state.

Theo: I like all that very much. It shows that the mind has no complete and direct power to block its desires at any time. If it did, it would •never be settled, whatever investigation it might make and whatever good reasons or effective sentiments it might have, and would •remain forever irresolute, fluctuating endlessly between fear and hope. . . .

Phil: However, a man is at liberty to lift up his hand to his head or let it stay at his side: he is perfectly indifferent in either; and it would be an imperfection in him if he didn't have *that* power.

Theo: Strictly speaking, one is never indifferent with regard to two alternatives—*any* two, e.g. whether to turn right or left. . . . We do one or the other without thinking about it, which is a sign that various internal dispositions and external impressions—all of them insensible—have worked together to settle us on the alternative that we adopt. It doesn't outweigh its rival by much, however, and we are bound to seem indifferent about the matter, since the slightest *sensible* consideration that arises for us can easily determine us to go the other way instead. There is a little difficulty in raising an arm to put a hand on one's head, but it is so small that we easily overcome it. I concede

that it would be a great imperfection in man if he couldn't easily to determine himself to lift his arm and couldn't easily determine himself not to lift his arm.

Phil: But it would be as great an imperfection if he had the same evenly balanced indifference in all situations, e.g. when he wants to save his head from a blow that he sees coming and all that is involved is a movement he could easily make and could easily not make, just like the cases we have been speaking of, where it is almost a matter of indifference. If it were almost a matter of indifference to him in cases like *that*, he wouldn't be brought to move vigorously or swiftly enough when he needs to. So determination is frequently useful and necessary to us; and if we were only weakly determined in every sort of situation, and more or less insensitive to reasons drawn from perceptions of good and bad, we would be without effective choice. If we were determined by anything but the last result of our own mind's judgment about the good or evil of an action, we wouldn't be free.

Theo: Nothing could be more true; those who seek some other kind of freedom don't know what they are asking for.

Phil: 49 Those superior beings who enjoy perfect happiness are more steadily determined in their choice of good than we are, and yet we have no reason to think they are less free than we are. . . . I even think that if it were fit for such poor finite creatures as we are to say anything about what infinite wisdom and goodness could do, we might say that God himself cannot choose what isn't good; his freedom doesn't prevent him from being determined by what is best.

Theo: I am so convinced of this truth that I believe we can assert it boldly, 'poor finite creatures' though we are, and indeed that we would be very wrong to doubt it. In doing so we

would detract from God's wisdom, his goodness and his other infinite perfections. But a choice, however much the will is determined to make it, shouldn't be called absolutely and in the strict sense *necessary*: a predominance of goods of which one is aware inclines without necessitating, although, all things considered, this inclination is determining and never fails to have its effect.

Phil: To be determined by reason to the best is to be most free. 50 Would anyone want to be an imbecile because an imbecile is less determined by wise considerations than a wise man? If shaking off reason's yoke is liberty, then madmen and fools are the only freemen! I think that someone who chose to be mad for the sake of that kind of 'liberty' would have to be mad already.

Theo: Some people these days think it clever to sneer at reason and to treat it as intolerable pedantry. I see little pamphlets whose self-congratulating authors have nothing to say, and sometimes I even see verses so fine that they shouldn't be used to express such false thoughts. In fact, if those who make fun of reason were speaking in earnest this would be a new kind of absurdity, unknown in past centuries. To speak against reason is to speak against the truth, for reason is a chain of truths. This is to speak against oneself, and against one's own good, since the principal use of reason consists in knowing the good and pursuing it.

Phil: 51 The highest perfection of any thinking being lies in a careful and constant pursuit of true happiness; so the foundation of our liberty is our taking care not to mistake imaginary happiness for the real thing. The more strongly and unalterably we are committed to the pursuit of happiness in general, with our desires always aiming at that, the more free we are from any necessary determination of our will by a desire for some particular good that we haven't

properly examined to see whether or not it agrees with our real happiness.

Theo: True happiness *ought* always to be the object of our desires, but there is some reason to doubt that it *is*. For often we hardly think of it, and, as I have more than once pointed out here, unless appetite is directed by reason it aims at present pleasure rather than the lasting pleasure that is called ‘happiness’—although it does try to make the pleasure last (see 36 and 41). . . .

Phil: No-one should claim that he *can’t* govern his passions or hinder them from breaking out and forcing him into action. Of course he *could* govern his passions if he were in the presence of a monarch or a great man; and what he could do in those circumstances he can also do, if he wants to, when he is alone or in the presence of God.

Theo: That is an excellent point and worthy of frequent reflection.

Phil: 54 Yet the various and contrary choices that men make show that the same thing is not good to every man alike. If our only concern was this present life, the explanation of this variety—some men choosing luxury and debauchery for example, and others preferring sobriety to sensuality—would be merely that different things made them happy.

Theo: That is the explanation of the variety of choices, even as things actually are—though men all do or *should* have before them the common goal of a future life. The fact is that a regard for real happiness, *even in this life*, would require us to prefer virtue to sensuality, because sensuality takes us away from happiness; although the need for virtue wouldn’t then be as strong or as decisive as it is when the after-life is taken into account. It is also true that men’s tastes differ, and it is said that one shouldn’t argue about matters of taste.

But tastes are only confused perceptions, and we should rely on them only when their objects have been examined and found to be insignificant and harmless. If someone acquired a taste for poisons that would kill him or make him wretched, it would be absurd to say that we oughtn’t to argue with him about his tastes.

Phil: 55 If there is nothing to look forward to beyond the grave, the famous inference is certainly right: *Let us eat and drink, let us enjoy what we delight in, for tomorrow we shall die.*

Theo: . . . Aristotle, the Stoics and some other ancient philosophers held a different view, and I think they were right. If there were nothing beyond this life, tranquillity of soul and bodily health would still be preferable to pleasures incompatible with them. And even if a good isn’t going to last for ever, that’s no reason to disregard it. But in some cases it can’t be shown that the most honourable thing is also the most useful. So only a regard for God and immortality makes the obligations of virtue and justice *absolutely* binding.

Phil: 58 It seems to me that our judgment of *present* good or evil is always right. And as regards *present* happiness and misery, when a man is thinking only about that and not considering consequences, he never chooses wrongly.

Theo: That is, if everything were restricted to this present moment there would be no reason to refuse any pleasure that is offered. As things are, although every pleasure is a sense of perfection. . . . certain perfections bring with them greater imperfections. If someone devoted his entire life to throwing peas at pins, trying to get the knack of skewering them every time, . . . he would achieve a sort of perfection, but a very trivial one that couldn’t stand comparison with all the essential perfections that he had let go. In the same way,

the perfection involved in certain present pleasures should be made to yield, above all, to the cultivation of perfections that are needed if one isn't to be plunged into misery, which is the state of going from imperfection to imperfection, from suffering to suffering. But if there were only the present, one would have to settle for •the perfections that it offered, i.e. for •present pleasure.

Phil: 62 No-one would willingly make his state miserable except through wrong judgments. I'm not speaking of the mistakes that result from *invincible* error, which hardly deserve to be called 'wrong judgment'; but of ones that everyone must confess to be wrong judgments. **63** Firstly, then, the soul makes mistakes when we compare •present pleasure or pain with a •future pleasure or pain, measuring them according to their different •temporal• distances from us. We are like a spendthrift heir who renounces a great inheritance that was certain to come to him, in exchange for some small present gain. Everyone must agree that this is a wrong judgment, for the •future will become •present and will then have the same advantage of nearness! A man wouldn't ever let wine touch his lips if the pleasure of drinking were accompanied, at the very moment when the drink was swallowed, by the nausea and headache that will in fact follow a few hours later. If a small interval of time (•a few hours•) can produce such a great illusion, there is all the more reason to expect a larger distance to have the same effect.

Theo: •Distances between times are in this respect somewhat like •distances between places. But there is also this difference: a •visible thing's effect on our eyesight is inversely proportional, more or less, to its distance from us, but the same doesn't hold for the effect on our minds and imaginations of •things in the future. Light rays are

straight lines, and move apart at a steady rate. But there are curves which after some distance appear to meet a straight line, and are no longer perceptibly separated from it. With a curve that asymptotically approaches a straight line, the apparent distance between the two disappears, though really they stay apart for ever. We find that even the apparent size of objects eventually stops decreasing in proportion to their distance from us, because the appearance soon disappears entirely although the object isn't infinitely distant. That is how a small distance of time can completely hide the future from us, just as though the object had disappeared. Often nothing remains of it in the mind but the name, together with thoughts of a kind I have already mentioned—*blind* thoughts that can't influence anyone unless he has made provision for them through being methodical and through practice.

Phil: I shan't discuss the kind of wrong judgment through which absent things are not merely lessened but reduced to *nothing* in the minds of men, when they enjoy whatever they can get in the present and conclude that no harm will come to them from this conduct.

Theo: •This covers two different kinds of case•. •In one of them, the person's expectation of good or evil is abolished through his denying or doubting truths about what the consequences will be of his present conduct. •The other way of reducing to nothing the sense of the future is through the false judgment—already discussed—that results from having too weak a representation of the future and paying little or no attention to it. Another point: it might be worthwhile here to distinguish •false judgment from •defective taste. Often •judgment doesn't come into it•: one doesn't even *raise the question* of whether the future good is preferable—one acts solely on impressions, with no thought of bringing

them under scrutiny. When someone *does* give thought to the future, one of two things happens: either •he isn't thorough enough in his thinking, and drops the question without having followed it through; or •he pursues his critical scrutiny and reaches a conclusion. Either way, there is sometimes a certain lingering sense of wrongdoing; but sometimes there are absolutely no scruples, no deterrent fears—whether because the mind sheers right away from them or because it is hoodwinked by its snap judgments.

Phil: 64 The cause of our judging wrongly in comparing goods or evils is the narrowness of our minds. We can't properly enjoy two pleasures at once, much less any pleasure while pain possesses us. A little bitter mingled in our cup leaves no taste of the sweet. The pain that someone actually feels now is worse than any other, and he cries out 'Any rather than this!'

Theo: That varies a lot according to individual temperament, the intensity of what a person feels, and the habits he has acquired. A man with gout may be overjoyed because a great fortune has come to him, and a man who bathes in pleasure and could live at his ease on his estates is deep in sorrow because of a disgrace at court. When pleasure is mixed with pain, the occurrence of joy or sorrow is a result—it depends on which component prevails in the mixture. . . . There are people who have some illness or handicap that causes them great pain whenever they eat or drink, or when they satisfy other appetites; and yet they satisfy those appetites, even going beyond what they need and what is proper. Others are so soft or delicate that they reject any pleasure that is mixed with any pain, nastiness or discomfort. There are people who rise right above the minor pleasures and pains of the present and act almost entirely on the basis of hope and fear; others are so effeminate that they complain of the slightest

discomfort and chase after the slightest of present sensible pleasures—almost like children. To these people, the pain or sensual pleasure of the *present* always seems to be the greatest. . . . Still, despite all these individual differences, it remains true that everyone acts only according to his present perceptions: when the future affects someone, it does so either through his image of it or else through his having made a policy and practice of being guided by the mere name or some other arbitrary symbol of the future without any image or natural sign of it. The latter case depends on the fact that one can't go against a •policy one has firmly adopted—still less against one's established •practice—without a certain disquiet and sometimes a certain feeling of distress.

Phil: 65 Men are apt enough to under-estimate the value of future pleasure, convincing themselves that it may well turn out not to match their hopes or what people generally think about it; because they have often found through their own experience not only that •what others have magnified has appeared very insipid to them, but also that •what they have themselves been delighted by at one time has shocked and displeased them at another.

Theo: That is how the sensualist reasons, mostly, but the ambitious man (and the miser) are usually found to think quite differently about honours and riches. •They may *expect* honours (or riches) to be very satisfying, but •when they have honours (or riches) they get only feeble pleasure from them and often almost none at all, because their thoughts are always on the next move. Nature the architect did very well, it seems to me, making men so alert to things that have so little effect on the senses. If we weren't capable of becoming ambitious or miserly, it would be hard for us—in the present state of human nature—to become virtuous and rational enough to work towards our own perfection in face of the

present pleasures that distract us from it.

Phil: 66 Concerning the good or bad consequences of our conduct—its likelihood of bringing us good or evil—we judge wrongly in several ways ·of which I mention two·. We judge wrongly when •we underestimate *how bad* the consequences of our conduct will be, and when •we underestimate *how likely* it is that an admittedly bad consequence will ensue—thinking that things may work out differently, or that *we* may be able to fend off the bad consequences by hard work, skill, change of conduct or repentance.

Theo: The first of these is the kind of false judgment, discussed earlier, in which future good or evil is badly represented. So all we have to discuss now is the second kind of false judgment, namely the one where it is doubted that the result will ensue.

Phil: It would be easy to show, case by case, that these evasions that I have mentioned are wrong ways of judging; but I shall only make the general point that it is very wrong and irrational to risk a greater good in order to get a lesser one, or to expose oneself to misery in order to achieve a small good or avoid a small harm, doing this on the basis of flimsy guesswork before the matter has been properly looked into.

Theo: There is no way of comparing •how inevitable a result is with •how good or bad it is. In trying to compare them, moralists have become muddled, as can be seen from writings on probability. The fact is that in this as in other assessments that are entirely different, heterogeneous, having more than one dimension (so to speak), the item's 'magnitude' is made up out of two estimates—as a rectangle is measured by its length and its breadth. As for the inevitability of the result, and degrees of probability, we don't yet possess the branch of logic that would let them be estimated. And most

theorists of applied ethics who have written on probability haven't so much as understood the nature of it: they have sided with Aristotle in founding it on •authority, rather than on •likelihood as they ought to have, authority being only *one* of the reasons for something's likelihood.

Phil: Here are some of the usual causes of this wrong judgment. **67** The first is ignorance. The second is carelessness, when a man *overlooks* even the things he does know. This is an affected and present ignorance, which misleads our judgments as well as our wills. [Locke seems to use 'affected' in its now obsolete sense of 'afflicted, tainted'. His French translator put *affectée*, which couldn't mean that. Leibniz seems to equate it with the mediaeval *ignorantia affectata* = 'wilful ignorance'.]

Theo: It is always present, but it isn't always affected: sometimes when a person needs to think of something that he knows and would call to mind if he had perfect control of his memory, it doesn't occur to him to do so. Affected ignorance always involves some heeding for as long as it is affected, though commonly there can be heedlessness later on. If someone discovered a technique for bringing to mind *at the right time* the things that one knows, it would be of prime importance; but so far as I can see no-one has even tried to develop the beginnings of such a technique. Many have written about the art of memory, but that is quite different.

Phil: If therefore the reasons on either side are added up in haste, and several of the sums that should have gone into the reckoning are overlooked and left out, this rush causes as many wrong judgments as if it were a perfect ignorance.

Theo: Indeed, for the right decision to be made in a case where reasons have to be weighed against one another, many things are needed. [He illustrates this with the way merchants use their account books. Then:] So if we are to make

good use of the art of inference, we need •a technique for bringing things to mind, •another for estimating probabilities, and also •knowledge of how to evaluate goods and ills; and we need •to be attentive and on top of all that •to have the patience to carry our calculations through. Finally, we need •to be firmly and steadily resolved to act on our conclusions; and we need •skills, methods, rules of thumb, and well-entrenched habits to make us true to our resolve later on when the considerations that led us to it are no longer present to our minds. God has seen to it that in regard to what matters most—what concerns the most important thing, namely happiness and misery—one doesn't need as great an array of •knowledge, aids and skills as would be needed for sound judgment in a council of state or of war, in a court of law, in a medical consultation, in a theological or historical debate, or in a problem of mathematics or mechanics. But as against that, where the great matter of happiness and virtue is concerned one needs more •firmness and regularity of conduct if one is always to make good resolves and to abide by them. In short, true happiness requires less •knowledge but greater •strength and goodness of will, so that the dullest mentally defective person can achieve it just as easily as can the cleverest and most educated person.

Phil: So it can be seen that *understanding without liberty would be useless*. If a man could see what would do him good (or harm) without being able to move one step towards (or away) from it, what advantage would there be for him in being able to see? It would only make him more miserable still, for he would uselessly hanker for the good •that he saw to be unreachable• and fear the harm that he saw to be unavoidable. And *liberty without understanding would be nothing*. Someone who is at liberty to ramble in perfect darkness—how is he better off than if he were driven up and

down by the force of the wind?

Theo: He would satisfy his whims a little better, but he would be no better placed to encounter good and avoid harm. . . .

Phil: 69 The last question: Is it in a man's power to change the pleasantness and unpleasantness that goes with some particular action? In many cases he can. Men can and should correct their palates, and make them appreciate things. The soul's tastes can also be altered by a due consideration, practice, application and custom. That is how one becomes accustomed to tobacco, which eventually becomes enjoyable through use and familiarity. [Locke had written that sensible people persist with tobacco until they can enjoy it, because it has been 'shown to be useful to health'.] It's the same with regard to virtue: habits have great charms, and can't be given up without disquiet. It may be thought a paradox that men can make things or actions more or less pleasing to themselves, so greatly neglected is this task.

Theo: That is what I said too, near the end of **37** above and again near the end of **47**. One can induce oneself to want something and to develop a taste for it.

Phil: 70 When morality rests on its true foundations, it is bound to determine one to be virtuous: all that is needed is the *possibility* of infinite happiness or misery in an after-life. It can't be denied that

a virtuous life with the expectation of possible everlasting bliss

is preferable to

a vicious life with the fear of a dreadful state of misery or at best the terrible uncertain hope of annihilation.

It is obvious that this is so, and would be even if on earth the virtuous life had nothing but pain and the vicious life had continual pleasure. And for the most part that is *not*

how things stand; for I think that even in this life the wicked fare worse, all things considered, than others.

Theo: So even if there were nothing beyond the tomb, an Epicurean life wouldn't be the most rational one. I'm very pleased that you are now correcting the contrary claim that you seemed to make in 55 [page 90].

Phil: Who would be so mad as to decide (if he thought hard about it) to expose himself to a possible danger of being infinitely miserable, with nothing to •hope for except sheer annihilation; rather than putting himself in the position of the good man, who can hope for eternal happiness and has nothing to •fear but annihilation? I'm not saying anything here about the certainty or the probability of a future state, because all I want is to show to anyone who makes a wrong judgment on this matter that it is wrong even on his own principles.

Theo: The wicked are powerfully drawn to the belief that there can't be an after-life. But their only reason for this is that we shouldn't go beyond what we learn from our senses, and that no-one they know has returned from the other world. There was a time when by that argument one could have denied the existence of the Antipodes, if one weren't prepared to augment popular notions with mathematical ones; and that would have been every bit as justifiable as it is now to deny the after-life because one refuses to augment the notions of imagination with true metaphysics. There are three levels of notions or ideas—popular, mathematical, and metaphysical. The first weren't enough to make people believe in the Antipodes, and the first two still don't suffice to make one believe in the world of the after-life, though even they create a presumption in its favour. Notions of the second kind conclusively established the existence of the Antipodes in advance of our present experience of them

(I'm referring not to the •inhabitants but to the •place that geographers and geometers assigned to them, from their knowledge of the roundness of the earth); and notions of the third kind can provide just as much certainty that there is an after-life—certainty that we can have right now, before we have gone to see.

Phil: This chapter is supposed to have •power as its general topic, freedom being merely one species of power, though a most important one. Let us return to power ·in general·. 72 It will be to our purpose, and help to clarify our thoughts about power, if we look more carefully at what is called 'action'. I said at the start of our discussion of power that we have ideas of only two sorts of action, namely motion and thought.

Theo: I think one might replace 'thought' by the more general term 'perception', attributing thought only to •minds whereas perception belongs to all •entelechies, ·i.e. all things that are in some basic way analogous to minds· [see page 74 above]. But I wouldn't challenge anyone's right to use 'thought' with that same generality, and I may sometimes have carelessly done so myself.

Phil: But although motion and thought are given the name •'action', it turns out not always to be perfectly suitable to them because there are instances ·of motion and of thought· that will be recognized rather to be •passions. In these instances, the substance that has the motion or thought receives purely from outside itself the impression that puts it into that 'action', and so it acts only through its ability to receive that impression, which is a merely •passive power. Sometimes the substance or agent puts *itself* into action by its own power, and this is •active power strictly so-called.

Theo: As I have already said, anything that occurs in what is strictly a *substance* must be a case of 'action' in the

metaphysically rigorous sense of ‘something that occurs in the substance spontaneously, arising out of its own depths’; for no created substance can have an influence on any other, so that everything comes to a substance from itself (though *ultimately* from God). But if we •define the ‘active’/‘passive’ line differently, and •take *action* to be an endeavour towards perfection and *passion* to be the opposite, then genuine substances are

active only when their perceptions are becoming better developed and clearer,

just as they are

passive only when their perceptions are becoming more confused.

(Notice that I do grant perceptions, •though not thoughts•, to all substances.) Consequently, in substances that are capable of pleasure and pain every action is a move towards pleasure, every passion a move towards pain.

[Theophilus will now rely on a doctrine of Leibniz’s concerning matter. Leibniz’s case for it, expanding the sketchy one at the end of this speech, is as follows:

- A substance strictly so-called is indestructible, so
- Substances strictly so-called have no parts, so
- Substances are not extended, so
- No mass of matter is a collection of substances, so
- No mass of matter is basically real, so
- Every mass of matter is something ‘phenomenal’, i.e. is the *appearance* of something, so
- Properties of masses of matter—e.g. being-in-motion—are also in that sense ‘phenomenal’.]

As for motion: it has only phenomenal reality, because it belongs to matter or mass which isn’t strictly speaking a substance •or collection of substances•. Still, there is a semblance of •action in •motion, as there is a semblance of •substance in •mass, •and this allows us to use a kind of active/passive distinction with matter, though not a strict and basic one•. Using that non-basic distinction, we can say

these:

- a body ‘acts’ when there is spontaneity in its change,
- a body ‘passively undergoes’ when it is pushed or blocked by another body;

just as with the genuine action or passion of a genuine substance we can say these:

- a substance is active in any change that brings it closer to its own perfection, and
- a substance is passive in any change that brings it further from its own perfection.

(In the latter case, the change can be attributed to an outside cause, though not one acting *immediately* on the substance.) The rationale for *this* use of ‘active’/‘passive’ is that when a substance comes closer to being perfect this change can be explained in an intelligible way by reference to the substance itself, whereas its moving further from being perfect can be intelligibly explained by reference to other things . I say that bodies have only *a semblance of* substance and of action because something made up of parts isn’t strictly speaking a substance, any more than a herd is. Still, we can allow that a body may involve *something substantial*, something that gets its unity—which makes it like one being—from thought.

Phil: It has been my view that a power to receive ideas or thoughts through the operation of an external substance is called a ‘power of thinking’, although basically this is a merely •passive power. (I’m setting aside here the reflections and inner changes that always *accompany* the image that is received; •there *are* always such accompanying changes•, for the expression that occurs in the soul is like what there would be in a *living* mirror.) But when one voluntarily brings into view ideas that are out of sight, or chooses which ideas to compare with which others, one is exercising what is truly an •active power.

Theo: Those procedures involve transitions to a more perfect state, so what you say about them agrees with the notions I have just been putting forward. Yet I should have thought that *sensations* also involve action, because they present us with perceptions that stand out more, and thus with opportunities for observation and for self-development, ·which is another way of coming closer to one’s own perfection·.

Phil: 73 Now I believe that our primary, original ideas seem to fall into the following few groups. **(1)** The ones that come to us through our senses:

Extension,

Solidity,

Mobility (i.e. passive power or capacity to be moved).

(2) The ones that come into our minds by way of reflection:

Perceptivity and Motivity (i.e. active power or faculty of moving).

(3) Those that come to us by both ways, from sensation and from reflection:

Existence,

Duration,

Number.

For I think that in terms of these ·eight· we could explain the nature of colours, sounds, tastes, smells and all the other ideas we have, if only we had faculties acute enough to perceive the different motions of the tiny bodies that produce those sensations.

Theo: To speak frankly, I don’t think that many of those ideas *are* thoroughly original and primary ·and thus simple and unanalysable·, as you have claimed they are. In my

opinion most of them can be further decomposed. Yet I don’t blame you for stopping there and not pushing the analysis back further. There is another point: although by further analysis we could take some items *off* your list of ‘primary original’ ideas, I think we could also *add* to your list some other ideas that are just as original ·as yours·, if not more so. As for how they should be arranged: if we are to follow the order of *analysis* I think we should put

existence before all the others,

number before extension, and

duration before motivity and mobility.

Not that this analytic order is the usual order in which events prompt us to think of these ideas. The senses provide us with *materials* for reflections: we couldn’t think even about •thought if we didn’t think about •something else, i.e. about the particular facts that the senses provide. I’m convinced that created minds and souls never lack organs and never lack sensations, as they can’t reason without symbols. Some people have wanted to maintain a complete separation of body from soul, and to endow the separated soul with thought-processes that couldn’t be explained by anything we know, and which would be remote not only from our present experience but also—and far more important—from the general order of things. They have given too much of an opening to the self-described ‘free-thinkers’, and have made many people sceptical about the finest and greatest truths, because their position deprives them of various good ways of proving those truths—ways that are provided by the general order of things.

Chapter xxii: Mixed modes

Philaethes: 1 Let us turn to mixed modes. I distinguish them from the more simple modes, which consist only of simple ideas of the same kind. These mixed modes are combinations of simple ideas that are regarded *not* as

characteristic marks of any real beings that have a steady existence,

but rather as

scattered and independent ideas that are put together by the mind.

That is what distinguishes them from the complex ideas of substances.

Theophilus: To understand this properly, we ought to run over your earlier divisions. You divide ideas into simple and complex, and you divide the complex ones into ideas of substances, modes, and relations. Modes are either simple (composed of simple ideas of the same kind) or mixed. So according to you there are

simple ideas,
ideas of simple modes and of mixed ones,
ideas of substances, and
ideas of relations.

We could also divide the items that ideas are *of* into **abstract** and **concrete**, further dividing them as follows:

abstract divide into non-relational and relational,
non-relational divide into attributes and modifications,
attributes and modifications *each* divide into simple and composite; and
concrete divide into •true simple substances and
•substantial things that are composed of or result from true simple substances.

Phil: 2 In respect of its •simple ideas the mind is wholly passive; it receives them just as sensation or reflection offers them. But it is often active with regard to •mixed modes, for it can combine simple ideas to make complex ideas without considering whether they exist together in that combination in nature. That is why these ideas are called ‘notions’.

Theo: But •simplicity doesn’t always involve passivity, because •reflection, which makes one think of simple ideas, is often voluntary •and therefore active•. And •complexity doesn’t always involve activity, because •combinations that nature hasn’t made may occur in our minds as though of their own accord in dreams and reveries—simply through memory and with no more activity on the mind’s part than in the case of simple ideas. As for the word ‘notion’: many people apply it to all sorts of ideas or conceptions, basic as well as derivative.

Phil: 4 What shows that several ideas have been united into a single one is the name.

Theo: That assumes that they *can* be combined; but often they can’t.

Phil: The crime of *killing an old man* isn’t taken for a complex idea because it doesn’t have a name as *parricide* [= ‘killing one’s parent’] does.

Theo: The reason why there is no name for the murder of an old man is that such a name wouldn’t be much use because the law hasn’t assigned a special penalty for that crime. However, •ideas don’t depend on •names. If a moralizing writer *did* invent a name for that crime and devoted a chapter to ‘Gerontophony’, showing what we owe to the old and how

monstrous it is to treat them ungenerously, he wouldn't be giving us a new *idea*. . . .

Phil: 9 We get ideas of mixed modes by •observation, as when one sees two men *wrestling*; we get them also by •invention (or voluntary putting together of simple ideas)—thus the man who invented *printing* had an idea of that art before it existed. Finally, we get them from •explanations we are given of terms that have been set aside for kinds of events that no-one has yet encountered.

Theo: We can also get them in dreams and reveries without the combination being a voluntary one—for instance seeing golden palaces in a dream without having thought of them before.

Phil: 10 The simple ideas that have been most modified—i.e. that have the largest numbers of varieties or special cases—are those of •thinking, of •motion and of •power, from which actions are conceived to flow. For action is the great business of mankind; all actions are thoughts or movements. A man's power or ability to do something, when it has been acquired by frequently doing the same thing, is what we call 'habit'; when it is ready on every occasion to break into action, we call it 'disposition'. . . . **11** Power being the source of all action, the substances that *have* these powers are, when they exercise this power to produce an event, called 'causes'; and the qualities that are introduced into any thing by the exerting of that power are called 'effects'. [Actually, Locke wrote 'the simple ideas that are introduced' etc.; Leibniz followed 'simple ideas' with '(that is, the objects of simple ideas)'; by which of course he meant 'qualities'. More of that in the next sentence.] The efficacy through which the new idea (quality) is produced is called 'action' in

the thing that exerts the power, and 'passion' in the thing in which some simple idea (quality) is changed or produced.

Theo: ·I want to make three points about this·.

(1) If power is taken to be the source of action, it means more than the aptitude or ability in terms of which 'power' was explained in the preceding chapter. For, as I have more than once remarked [page 65, 67], it also includes *endeavour*. It is in order to express this sense that I use the term 'entelechy' to stand for power. . . .

(2) You have been using the term 'cause' in the sense of *efficient* cause; but it is also used to mean *final* cause or motive or purpose—not to mention *matter* and *form*, which the Scholastics also call 'causes'!

(3) I'm not convinced that we should say that •a single item is called 'action' in the agent and 'passion' in the thing that is acted on, which would mean that it exists in two subjects at once, like a relation. I think it would be better to say that there are •two items, one in the agent and the other in the thing that is acted on.

Phil: Many words that seem to express some action signify nothing but the cause and the effect. For example, 'creation' and 'annihilation' don't contain any idea of the action or the *how* of it, but barely of •the cause and of •the thing that is produced.

Theo: I admit that in thinking of the creation one doesn't—and indeed can't—conceive of any process in detail. But one thinks of something in addition to •God and •the world, for one thinks that God is the cause and the world the effect, i.e. that God has produced the world. So obviously one does also think of action.

Chapter xxiii: Our complex ideas of substances

Philalethes: 1 The mind notices that a certain number of simple ideas go constantly together; presumes that they belong to one thing, and gives a single name to the whole collection when they occur in this way united in one subject; and from then onward we are apt to talk carelessly as though this were one simple idea, when really it is a complex of many ideas together.

Theophilus: I don't find in the ordinary ways of talking anything that deserves to be accused of 'carelessness'. We do take it that there is one thing, and one idea, but not that there is one *simple* idea.

Phil: Because we can't imagine how these simple ideas can exist by themselves, we get into the habit of supposing some substratum—some *thing* that supports them—in which they exist and from which they result, and we call this supposed thing 'substance'.

Theo: I believe that this way of thinking is correct. And we don't need to 'get into the habit' of it or 'suppose' it, because right from the outset we conceive *several properties in a single thing*, and that's all there is to these metaphorical words 'support' and 'substratum'. So I don't see why it is made out to involve a problem. On the contrary, what comes into our mind is

the concrete thing conceived as wise, warm, shining,
rather than
abstractions or qualities such as wisdom, warmth,
light etc.,
which are much harder to grasp. (I say 'qualities', for what the substantial object contains are qualities, not ideas.) It can even be doubted whether these qualities are genuine

entities at all, and indeed many of them are only relations. We know, too, that abstractions are what cause the most problems when one tries to get to the bottom of them. . . . Treating qualities or other abstract items as though they were the least problematic, and concrete ones as very troublesome, is. . . . putting the cart before the horse.

Phil: 2 A person's only notion of *pure substance in general* is the notion of I know not what subject of which he knows nothing at all but which he supposes to be the support of qualities! We talk like a child who is asked 'What's *that*?' and complacently answers 'It's *something*'—which really means that he doesn't know what it is.

Theo: If you distinguish two things in a substance—•the attributes or predicates and •their common subject—it's no wonder that you can't conceive anything special in this subject. That is inevitable, because you have already set aside all the attributes through which details could be conceived. Thus, to require of this *pure subject in general* anything beyond what is needed for the conception of *the same thing*—e.g. it is the same thing that understands and wills, the same thing that imagines and reasons—is to demand the impossible; and it also contravenes the assumption that was made in performing the abstraction and separating the subject from *all* its qualities. The same alleged difficulty could be brought against the notion of *being*, and against all that is plainest and most primary. If we ask a philosopher 'What thought do you have when you conceive *pure being in general*?' he will have as little to say as if he had been asked what *pure substance in general* is—in each case because the question excludes all detail •that might give content to an

answer. So I don't think it's fair to mock philosophers as Locke does at xiii.19 when he compares them to an Indian philosopher who was asked

'What supports the world?'

'A great elephant supports it.'

'What supports the elephant?'

'A great tortoise supports it.'

'What supports the tortoise?'

'*Something*—I don't know what.'

Yet this conception of substance, for all its apparent thinness, is less empty and sterile than it is thought to be. Several consequences arise from it; these are of the greatest importance to philosophy, to which they can give an entirely new face.

Phil: 4 We have no clear idea of *substance in general*. 5 And we have as clear an idea of •spirit as of •body, because the idea of a bodily substance in matter is as remote from our conceptions as that of spiritual substance. . . .

Theo: My own view is that this opinion about what we don't know springs from a demand for a way of knowing that the object doesn't admit of. The true sign that we have a clear and distinct notion of x is our being able to give *a priori* proofs of many truths about x. I showed this in a paper about truths and ideas that was published about 20 years ago in 1684.

Phil: 11 If our senses were acute enough, sensible qualities like the yellow colour of gold would disappear, and instead of •yellow we would see •an admirable texture of parts. We have thoroughly learned this from microscopes. 12 Our present knowledge is suitable for the condition we are now in. Perfect knowledge of the things around us may be beyond the reach of *any* finite being. We are equipped with faculties that suffice to lead us to a knowledge of •God and of •our duty. If our senses were altered by being much sharper and

more sensitive, this change would be inconsistent with our being [= 'would alter our fundamental make-up'].

Theo: That is all true, and I said something about it earlier; but I want to add three remarks to the three things you have just said. (1) The colour yellow is a reality, like the rainbow. (2) We are apparently destined to achieve a much higher state of knowledge than we are now in, and our level of knowledge may even go on rising for ever. That •there will always be more to be learned seems to follow from the fact that material nature doesn't contain elementary particles and so there is no rock-bottom level for physics. If there were atoms, as Locke appeared elsewhere to believe that there are [i.15? ii.2?], it couldn't be the case that no finite being could have perfect knowledge of bodies. (3) If our eyes became better equipped or more penetrating, so that some colours or other qualities disappeared from our view, others would appear to arise out of them, and we would need a further increase in acuity to make *them* disappear too; and since matter is actually divided to infinity, this process could go on to infinity also.

Phil: 13 I suspect that one great advantage that some spirits have over us is that they can voluntarily shape their sense-organs in ways that are suitable for their projects.

Theo: We do that too, when we shape microscopes, but other creatures can take it further than we can. If we could transform our eyes themselves—as we actually do, in a way, when we want to see close up or far away—we would need to shape them by means of something belonging to us even more intimately than they do; for all this would have to occur mechanically, because the mind can't act immediately on bodies. Furthermore, I'm of the opinion that higher-Spirits perceive things in a manner comparable with ours. . . . Nothing is so wonderful that it couldn't be produced by

nature's mechanism. And I think that the wise Fathers of the Church were right to attribute bodies to angels.

Phil: 15 The ideas of •thinking and •moving the body, which we find in the idea of *spirit*, can be conceived just as clearly and distinctly as can the ideas of •extension, •solidity and •being moved, which we find in the idea of *matter*.

Theo: I agree about the idea of •thinking as an ingredient in the idea of spirit, but I don't hold that view about the idea of •moving the body. For according to my system of pre-established harmony, bodies are so made that once they have been set into motion they continue of their own accord, as the actions of the mind require. This hypothesis doesn't imply that the mind affects or acts on the body, and so it makes sense, whereas the other doesn't.

Phil: Every act of sensation gives us an equal view of material reality and of spiritual [= 'mental'] reality. For while I know by seeing or hearing that there is some material thing outside me, I even more certainly know that there is some spiritual being within me that sees and hears.

Theo: Well said, and very true! The existence of spirit is indeed more certain than that of sensible objects.

Phil: 19 Spirits operate at various times and various places, and like bodies they can operate only *where they are*; so I have to hold that all finite spirits can change where they are.

Theo: I think that that is right, since space is only an order of coexisting things.

Phil: 20 One has only to think about the separation of the soul from the body by death to become convinced that the soul can move.

Theo: The soul could stop operating in this visible body; and if it could stop thinking altogether, as Locke earlier main-

tained, it could be separated from •this body without being united with •another one; and so its separation wouldn't involve motion after all. My own view is that the soul always thinks and feels, is always united with some body, and indeed never suddenly and totally leaves the body with which it is united.

Phil: 21 If anyone says that spirits are not *in loco sed in aliquo ubi* [scholastic Latin, meaning 'not in a place but somewhere'], I don't suppose that much weight will now be given to that way of talking. But if anyone thinks it *can* be given a reasonable sense, I ask him to put it into intelligible ordinary language and then validly infer from it a reason why spirits can't move.

Theo: The scholastics have three sorts of •ubiquity, or •ways of being somewhere. They attribute **(1) circumscriptive** ubiquity to bodies in space that are in it point for point, so that measuring them depends on being able to specify points in the located thing corresponding to points in space. **(2) Definitive** ubiquity. In this case, one can define—i.e. determine—that the located thing lies *somewhere* within a given space without being able to specify exact points or places that it occupies exclusively. That is how some people have thought that the soul is in the body, because they haven't thought it possible to pinpoint exactly where in the body the soul resides. Many competent people still take that view. (It's true that Descartes tried to impose narrower limits on the soul by locating it specially in the pineal gland; but since he didn't venture to pin-point it within the gland, he achieved nothing, and it would have made no difference if he had given the soul the run of its whole bodily prison.) What should be said about angels is, I believe, about the same as what is said about souls. . . . **(3) Repletive** ubiquity is what God is said to have, because he fills to repletion the entire universe in a more perfect way than minds fill

bodies, for he operates immediately on all created things, continually producing them, whereas finite minds cannot immediately influence or operate on them. I'm not convinced that this scholastic doctrine deserves the mockery that you seem to be trying to bring down on it. However, one can always ·uncontroversially· attribute a sort of motion to the soul, if only •by reference to the body with which it is united or •by reference to the sort of perceptions it has.

Phil: 23 If anyone says that he doesn't know •how he thinks, I answer that he also doesn't know •how the solid parts of body hold together to make an extended whole.

Theo: It is indeed rather hard to explain cohesion [= 'holding together']. But this cohesion of parts appears not to be necessary to make an extended whole, since perfectly rarefied and fluid matter can be said to make up an extended thing, without its parts holding together in any way. In fact, though, . . . I think that no mass is *absolutely* rarefied ·and perfectly fluid·, and that there is some degree of bonding everywhere. This is produced ·not by hooks or bonds or metaphysical glue, but· by motions all running the same way; ·that creates a kind of bonding, because· any division would have to set up cross-currents that couldn't happen without some turbulence and resistance. . . .

Phil: As for cohesion, some people explain it by saying that the surfaces at which two bodies touch are pressed together by something (e.g. air) surrounding them. **24** It is quite true that the pressure of a surrounding fluid may block the separation of two polished surfaces in a line •perpendicular to them; but it couldn't block them from ·being *slid* apart·, separating by a motion along a line •parallel to those surfaces. So if the *only* cause of cohesion was pressure from the surroundings, all parts of bodies would have to be easily separable by that sort of lateral sliding motion in any plane

you like intersecting any mass of matter.

Theo: Yes, no doubt that would be right if all the contiguous flat parts lay in the same plane or in parallel planes. But that isn't and can't be the case. Obviously, then, in trying to make some parts slide one will be acting in some quite different way on infinitely many others whose planes are at an angle with the plane of the former; ·so it isn't to be expected that the slide will 'easily' be made·. It must be understood that there is difficulty in separating two congruent surfaces, not only when the line of motion is perpendicular but also when it is at an oblique angle to them. . . . I agree, however, that a story about the pressure of the surroundings on flat contiguous surfaces couldn't explain *all* cohesion, because that explanation tacitly assumes that there is already cohesion *within* these contiguous faces.

Phil: 27 It has been my view that the extension of body is nothing but the cohesion of solid parts.

Theo: That seems to conflict with your own earlier explanations. It seems to me that if a body has (as I believe all bodies always do have) internal movements going on in it, i.e. if its parts are engaged in pulling away from one another, it is still extended for all that. So the notion of extension appears to me to be totally different from that of cohesion.

Phil: 28 Another idea we have of •body is the power to •communicate motion by pushing; and another we have of our •souls is the power to •arouse motion by thought. Our daily experience clearly provides us with these ideas; but if we want to dig into *how* this is done—i.e. into *how* bodies are moved by other bodies or by souls—·we are equally in the dark· about both·. For in the communicating of motion where one body loses as much motion as the other gains (which is the usual case), the only conception we can have

of what happens is that motion *passes out of one body into another!* This, I think, is just as obscure and inconceivable as how our minds move or stop our bodies by thought. The *increase* of motion by pushing, which is observed or believed sometimes to happen, is even harder to understand.

Theo: ·I have two comments to offer on this·. **(1)** I'm not surprised that you run into insoluble problems when you seem to be thinking in terms of something as inconceivable as *an accident's passing from one thing to another*; but I see no reason why we have to suppose such a thing. [In this context an 'accident' is an *instance* of a quality. When ball x hits stationary ball y and starts it moving, what happens according to the 'passage of accidents' theory is that some of x's motion leaves x and goes over into y, thus becoming y's motion. It's not merely that x slows down and y starts moving; the claim is that some of *the very same motion* that x initially had has gone across to y.]. . . . I have already said something about this (xxi.4 [page 73]). Your conception of what happens in a collision seems to regard motion as being something substantial, ·a kind of *stuff*, like salt dissolved in water·. . . . **(2)** Back in xxi.4 I also made the point that it isn't true that a body ·always· loses as much motion as it gives to another body—indeed that isn't even the 'usual case'. I have demonstrated elsewhere that the total quantity of motion in two colliding bodies is preserved only when the bodies are moving in the same direction before the collision, and still moving in the same direction after it. . . . As for the 'power of arousing motion by thought': I don't think that we have any idea of this or any experience of it either! The Cartesians themselves admit that the soul can't give any new force to matter, but they claim that it can change the direction of the force that the matter has already. I on the other hand maintain that souls can make no change in the force *or* in the direction of bodies, that one of these would

be as inconceivable and irrational as the other, and that to explain the union of soul and body we must avail ourselves of the pre-established harmony. . . .

Phil: 31 I would like to see anyone point to anything in our notion of •spirit that is more tangled and difficult, or nearer to a contradiction, than one ingredient in the notion of •body—namely divisibility in infinitum.

Theo: What you say yet again here in order to show that we understand the nature of spirit as well as or better than that of body, is true indeed. ·As for infinite divisibility·: When Fromondus devoted a whole book to the composition of the continuum, he was right to call it 'The Labyrinth'. But that [what?] comes from a false idea that people have of the nature of body as well as of space.

Phil: 33 Even the idea of God comes to us as our other ideas do: our complex idea of God is made up of the simple ideas that we receive from reflection and which we enlarge by our idea of the infinite.

Theo: As to that, I would direct you to what I have said in several places in order to show that all these ideas, and especially that of God [page 31], are within us from the outset; that all we do is to come to pay heed to them; and that the idea of the infinite isn't formed by extending finite ideas [page 58]. **Phil: 37** Most of the simple ideas that make up our complex ideas of substances are really only ·ideas of• powers, however inclined we are to think of them as ·ideas of• positive [here = 'non-relational'] qualities.

Theo: ·I don't agree with the implication that powers are not really qualities·. I think that what we do or should mean by 'real qualities' is just precisely *powers*—ones that •aren't essential to substances and that •include not merely an aptitude but also a certain endeavour.

Chapter xxiv: Collective ideas of substances

Philalethes: 1 After simple substances, let us look at collective ones. Isn't the idea of such a collection of men as make an army as much *one* idea as the idea of a man?

Theophilus: It is right to say that this aggregate (this being through aggregation, to say it in Scholastic!) makes up a single idea, although strictly speaking such a collection of

substances doesn't really constitute a true substance. It is an upshot of many things' being inter-related in a certain way, and it gets its final touch of unity by the soul's thought and perception—i.e. by being thought about and experienced as a single thing. Still, it can be said to be 'substantial' in the sense that it contains substances.

Chapter xxv: Relation

Philalethes: 1 We still have to consider ideas of relations, which are the most lacking in reality. When the mind compares one thing with another it is *relating* them, and the relative terms or labels that are made from this serve as marks to lead the thoughts beyond the subject to something distinct from it— as when, for example, using the relative label 'husband' in calling James 'a husband' directs the mind to a thought not only of James but of his wife; and these two things are called subjects of the relation or *relata*. [See the note on 'compare' on page 49.]

Theophilus: Relations and orderings are to some extent beings of reason, but have their foundations in things; for one can say that their reality, like that of eternal truths and of possibilities, comes from the supreme reason of God.

Phil: 5 A thing can change in respect of one of its relational properties without changing in itself. Today I think of Titius as a father, but he may stop being a father tomorrow because

of the death of his son, without any alteration in himself.

Theo: That's the right thing to say if we are guided by the things of which we are aware; but in metaphysical strictness nothing has relational properties that don't reflect its intrinsic states, so that Titius *can't* stop being a father without changing in some intrinsic respect, though it may be one that neither we nor Titius can be aware of. . . .

Phil: 6 I believe that the only relations are relations between *two* things.

Theo: But there are instances of relations amongst several things at once; think about a genealogical tree displaying the position and the connections of each member of the extended family. Even a figure such as a polygon involves the relation among all its sides.

Phil: 8 It is worth noticing that our ideas of relations are often clearer than our ideas of the things that are related.

Thus the idea of *father* is clearer than that of *man*.

Theo: That's because this relation is so general that it can also apply to other substances. ·If 'father' applied only to *men*, 'father' would mean something of the form '*man* who. . . ' and would therefore involve whatever obscurity there is in the idea of *man*. ·And another point relating to your phrase '*often* clearer': you don't say what it takes for the idea of a relation *not* to be clearer than the ideas of the things that are related. Let me fill that gap·. There can be something clear and something obscure in a subject, and a relation can be grounded in what is clear. But if the very form of the relation involved knowledge of what is obscure in the subject, the relation would share in this obscurity. [See the last paragraph of xxii, on page 99.]

Phil: 10 If a term that applies to a thing x necessarily leads the mind ·also· to ideas other than ones that are supposed really to exist in x, it is a *relative* term; all other terms are absolute.

Theo: It is a good thing you put in 'necessarily', and you could also have added 'explicitly' or 'straight away', ·because without those restrictions there wouldn't be any non-relative terms on your account·. Consider for example the non-relative term 'black'. We can think of *black* without thinking of its cause, but that involves staying within the limits of the knowledge that comes to one straight away, which is either confused (when one has no analysis of the idea) or distinct but incomplete (when one has only a limited analysis). But no term is so absolute or so self-sufficient that it doesn't involve relations. A complete analysis of *any* term applying to a thing x would lead to things other than x—would lead indeed to *all* other things! But we can say that some terms are relative and others are not by classifying as 'relative' only the ones that *explicitly* indicate the relationship that they contain. I'm here contrasting 'absolute' with relative: when I earlier contrasted it with 'limited' [page 59], that was in a different sense.

Chapter xxvi: Cause and effect, and other relations

Philaethes: 1 •Cause is that which produces any simple or complex idea, and •effect is that which is produced.

Theophilus: ·Three comments·: **(1)** I notice that you frequently use the word 'idea' to stand for the *quality* that the idea represents. **(2)** You only define *efficient* cause, as I pointed out earlier [page 91], ·leaving out *final* causes·. **(3)** You would have to agree that when you say
efficient •cause is what •produces, and

•effect is what •is produced,
you are merely dealing in synonyms. I have heard you say somewhat more distinctly that

cause is what •makes another thing begin to exist · [page 65], although the word 'makes' in this also leaves the main difficulty intact. But this will become clearer later.

Phil: 4 To mention some other relations, let me point out

that some temporal words that are ordinarily thought to stand for *positive* ideas are really *relative*—examples are the words ‘young’ and ‘old’, which when applied to a thing *x* relate *x*’s age to the ordinary duration of things of the same kind as *x*. Thus a man is called ‘young’ at twenty years, and ‘very young’ at seven years old, whereas we call a horse ‘old’ at twenty, and a dog at seven years. But we don’t apply ‘old’ or ‘young’ to the sun and stars, or to a ruby or a diamond, because we don’t know how long such things usually last. 5

It is the same thing with location and size, for instance when we say that a thing is ‘high’ or ‘low’, ‘large’ or ‘small’.

Theo: These remarks are excellent. But we do sometimes depart a little from this approach, as when we say that a thing is ‘old’ in comparison not with things of its own kind but with things of other kinds. For instance we say that the world or the sun is ‘very old’. When someone asked Galileo if he thought that the sun was eternal, he answered: ‘Not eternal, but very old.’

Chapter xxvii: What identity or diversity is

Philaethes: 1 A relative idea of the greatest importance is that of *identity* or of *diversity*. We never find two things of the same kind existing in the same place at the same time, and we can’t conceive how this could even be possible. That’s why when we ask whether a thing is the same or not, our question refers always to something that existed at such-and-such a time in such-and-such a place. From this it follows that one thing can’t have two beginnings of existence, and that two things can’t both begin at the same time and place.

Theophilus: In addition to the difference of time or of place there must always be an internal basis for their being two different things. There can of course be many things of the same kind, but no two of them are ever *exactly* alike. Thus, although time and place . . . do distinguish for us things that we couldn’t easily tell apart by reference to themselves alone, things nevertheless are distinguishable in themselves. So time and place don’t constitute the core of identity and

diversity, despite the fact that difference of time or place brings with it differences in the states that are impressed on a thing, and thus goes hand in hand with differences in things. To which I would add that we can’t basically distinguish things by differences in times and places, because we have to distinguish times and places by means of things. This is because times and places are in themselves perfectly alike. . . . and so can be distinguished only through what things they have in them. The method that you seem to be offering here as the only one for distinguishing among things of the same kind is based on the assumption that interpenetration—i.e. one thing’s interpenetrating another so thoroughly that they both fully occupy the same place at the same time—is contrary to nature. That’s a reasonable assumption; but experience itself shows that we aren’t bound to it when it comes to distinguishing things. For instance, we find that two shadows or two rays of light interpenetrate,

and we could devise an imaginary world where bodies did the same. And interpenetration doesn't imply that we can't tell the interpenetrating things apart. We can distinguish one ray of light from another just by the direction of their paths, even when they intersect and thus interpenetrate at the intersection.

Phil:

what the original says: 3 What is called the *principle of individuation* in the Schools, where it is so much inquired after, is existence itself, which determines a being to a particular time and place incommunicable to two beings of the same kind.

a suggested interpretation of that: The Aristotelian philosophy departments devote a lot of research to what they call 'the principle of individuation', i.e. to the question of what basically marks a thing off from other things. The answer to the question is: what makes a thing *that* thing and not something else is the course of its existence, which traces it back to a particular time and place at which *it* began and at which, therefore, no *other* thing can have begun.

Theo: The 'principle of individuation' for individuals comes down to the principle of distinctness of which I have just been speaking. If two individuals were perfectly alike—entirely indistinguishable in themselves—there wouldn't be any principle of individuation, i.e. any basis for telling them apart. I would even go so far as to say that in such a case there wouldn't be any individual distinctness, any separate individuals, which is to say that the supposed *two* exactly alike individuals would really only be *one*. That is why the notion of *atoms* is chimerical and arises only from men's incomplete conceptions. For if there were

atoms, i.e. perfectly hard bodies that are incapable of internal change and can differ from one another only

in size and in shape,

they *could* have the same size and shape, and then obviously they would be indistinguishable in themselves and could be told apart only by means of external relations that had no internal foundation; and that is contrary to the greatest principles of reason. In fact, however, every body is changeable and indeed is actually changing all the time, so that it differs in itself from every other. . . . From these considerations, which have until now been overlooked, you can see how far people have strayed in philosophy from the most natural notions, and how far they have distanced themselves from the great principles of true metaphysics.

Phil: 4 What makes it the case that something is •one plant is its having parts that are organized in such a way as to make them contribute to •one common life that they all share and that lasts as long as the plant exists even though it changes its parts.

Theo: Mere organization or structure, without an enduring life-force that I call a 'monad', wouldn't suffice to make something remain the same individual. For the structure can continue specifically without continuing individually, i.e. the pattern can continue but come to be a pattern of different stuff. When an iron horse-shoe changes to copper in a certain mineral water from Hungary, the same •kind of shape remains but not the same •individual: the iron dissolves, and the copper with which the water is impregnated is precipitated and imperceptibly replaces it. . . . So we must acknowledge that organic bodies as well as inorganic ones remain 'the same' only in appearance, and not strictly speaking. It is rather like a river whose water is continually changing, or like Theseus's ship that the Athenians were constantly repairing. But as for

substances that possess in themselves a genuine, real,

substantial unity,
 substances that are capable of actions that can properly
 be called 'vital',
 substantial beings. . . . that are animated by a certain
 indivisible spirit,
 one can rightly say that *they* remain perfectly the same
 individual in virtue of this soul or spirit that constitutes the
I in substances that think.

Phil: 5 The case isn't so much different in brutes from how
 it is in plants.

Theo: If plants and brutes have no souls, then their identity
 is only apparent, but if they do have souls their identity is
 strictly genuine, although their organic bodies don't retain
 such an identity.

Phil: 6 This also shows what the identity of *the same*
man consists in, namely his having *the same life*, which
 is continued by constantly fleeting particles of matter that
 take turns in being vitally united to the same organized body.

Theo: That can be understood in my way. In fact, an organic
 body doesn't remain •the same for more than a moment; it
 only remains •equivalent. And if no reference is made to the
 soul, there won't be the 'same life' or a 'vital unity'. So the
 identity in that case would be merely apparent.

Phil: If you equate the identity of a man with anything but
 one suitably organized body taken at any one instant
 and carried on from there under one organization of
 life in many particles of matter that take turns in
 being united to it,
 you'll find it hard to make an embryo the same man as an
 adult, or a madman the same man as one who is sane, except
 on a basis that would make it possible for Seth, Ishmael,
 Socrates, Pilate and St Augustine *all* to be 'the same man'!

The trouble is even worse for the philosophers who allow
 of transmigration of souls, and hold that men may be
 punished for their crimes by having their souls slipped into
 the bodies of beasts. But I don't think that anybody, however
 sure he was that the soul of Heliogabalus was in a hog, would
 say 'That hog is a man' or 'That hog is Heliogabalus'.

Theo: We have here two questions, **(1)** a substantive question
 about •the thing and **(2)** a verbal question about •the name.
(1) As regards the thing, a single individual substance can
 retain its identity only by keeping the same soul, for the
 body is in continual flux and the soul doesn't reside in
 certain atoms that are reserved for it. . . . However, there
 is no transmigration in which the soul *entirely* abandons
 one body and passes into another. Even in death it always
 retains an organic body, a part of its former one, although
 what it retains is always subject to wasting away insensibly
 and to restoring itself, and even at a given time to undergoing
 a great change. Thus, instead of transmigration of the soul
 there is reshaping, infolding, unfolding and flowing in the
 soul's body. . . . If 'transmigration' is understood less strictly,
 so that the doctrine about it says only that souls remain
 in the same *rarefied* bodies and only change their *coarse*
 bodies, that would be possible on my principles, even to
 the extent of a soul's passing into a body of another species
 in the manner of the Brahmins or the Pythagoreans. But
 something's being •possible doesn't make it •conform with
 the order of things. **(2)** If such a transformation did occur,
 however, in such a way that Cain, Ham and Ishmael had the
 same soul, the question of whether they ought to be called
 'the same man' is merely a question of a name. I have noticed
 that Locke recognizes this and sets it forth very clearly (in
 the final paragraph of this chapter). There would be *identity*
of substance in this supposed case, but if there were no

connection by way of memory between the different personas that were made by the same soul, there wouldn't be enough *moral identity* to say that this was a single person. And if God wanted a human soul to pass into the body of a hog and to forget the man and perform no rational acts, it wouldn't constitute a man. But if while in the body of the beast it had the thoughts of a man, and even of the man whom it had animated before the change, perhaps no-one would object to saying that it was the same man. . . .

Phil: 8 I think I may be confident that anyone who saw a creature with a human shape and anatomy would call it 'a man', even if throughout its life it gave no more appearance of reason than a cat or a parrot does; and that anyone who heard a parrot talk and reason and philosophize wouldn't describe it or think of it as anything but a parrot. We would all say that the first of these animals was a dull irrational man, and the second a very intelligent rational parrot.

Theo: I agree more with the second point ·about the rational parrot· than with the first ·about the dull man·, though something needs to be said about the second one also. •First: if an animal of human shape but lacking the appearance of reason were found as an infant in the forest, few theologians would be bold enough to decide straight away and without qualification to baptize it. A Roman Catholic priest might say conditionally 'If you are a man I baptize you'. For it wouldn't be known whether it belonged to the human race and whether there was a rational soul in it; it might be an orang-outang—a monkey closely resembling a man in external features. . . . I admit that a man *could* become as stupid as an orang-outang; but the inner being of the rational soul would remain, despite the suspending of the exercise of reason, as I have already explained. So *that*—the presence of a rational soul—is the essential point, and it can't be

settled by appearances. As to the •second case, ·about the rational parrot·: there is no obstacle to there being rational animals of some other species than ours. . . . Indeed it does seem that the definition of 'man' as 'rational animal' needs to be amplified by something about the shape and anatomy of the body; otherwise, according to my views, Spirits would also be men.

Phil: 9 [The *starred words in what follows both replace Locke's word 'consciousness'. The fault lies with his French translator, on whose work Leibniz mainly relied.] The word 'person' stands for

a thinking intelligent being that has reason and reflection and can consider itself as itself, the same thinking thing in different times and places, doing this purely through the *sense it has of its own actions.

And this *knowledge always accompanies our present sensations and perceptions—when they are distinct enough—and by this everyone is to himself what he calls *self*, without considering whether the same self is continued in the same substance or in different ones. For since thinking is always accompanied by

consciousness, and that is what makes everyone to be what he calls 'self', and thereby distinguishes himself from all other thinking things,

personal identity consists purely in consciousness. *That* is what makes a rational being always the same; and as far as this consciousness can be extended backwards to any past action or thought, that's how far the person's identity reaches; it is the same self now as it was then.

Theo: [In this speech and a few others, Theophilus uses 'physical' in a sense that does *not* imply confinement to what is material or corporeal or 'physical' in our sense. Rather it belongs to an ancient trio—

- logic, what •must be the case,
- physics, what •is the case,
- ethics—what •ought to be the case.]

I also hold this opinion that consciousness or the sense of *I* proves moral or personal identity. And that is how I distinguish the •unendingness of a beast's soul from the •immortality of the soul of a man: both of them preserve real, physical identity; but it is consonant with the rules of God's providence that in man's case the soul should also retain a moral identity that is apparent to us ourselves, so as to constitute the same *person*, which is therefore sensitive to punishments and rewards. You seem to hold that this apparent identity could be preserved in the absence of any real identity. Perhaps that could happen through God's absolute power; but I should have thought that according to the order of things an identity that is apparent to the person concerned—one who senses himself to be the same—presupposes a real identity obtaining through each immediate temporal transition accompanied by reflection, or by the sense of *I*; because an intimate and immediate perception can't be mistaken in the natural course of things. If •a man could be a mere machine and still possess consciousness, I would have to agree with you; but I hold that •that state of affairs isn't possible—at least not naturally. I wouldn't want to deny. . . . that I am the *I* who was in the cradle, merely on the grounds that I can no longer remember anything that I did at that time. To discover one's own moral identity unaided, it is sufficient that between one state and a neighbouring (or just a nearby) one there be a mediating bond of consciousness, even if this has a jump or forgotten interval mixed into it. Thus, if an illness had interrupted the continuity of my bond of consciousness, so that I didn't know how I had arrived at my present state even though I could remember things further back, the testimony of others could fill in the gap in my recollection. I could even be punished on this testimony if I had done some deliberate wrong during an interval which this illness had made me forget a short

time later. And if I forgot my *whole* past, and needed to have myself taught all over again, even my name and how to read and write, I could still learn from others about my life during my preceding state; and I would have retained my *rights* without having to be divided into two persons and made to inherit from myself! All this is enough to maintain the moral identity that makes the same person. It is true that if the others conspired to deceive me (just as I might deceive myself by some vision or dream or illness, thinking that what I had dreamed had really happened to me), then the appearance would be false; but sometimes the reports of other people can give us enough certainty for all practical purposes. And in relation to God, whose social bond with us is the chief point of morality, error cannot occur. As regards self, it will be as well to distinguish it from the appearance of self and from consciousness. The self makes real •physical identity, and the appearance of self, when accompanied by truth, adds to it •personal identity. So, not wishing to say that personal identity extends no further than memory, I want even less to say that the self, or physical identity, depends on it. The existence of real personal identity is proved with as much certainty as any matter of fact can be, by present and immediate reflection; it is proved conclusively enough for ordinary purposes by memories across intervals and by the concurring testimony of other people. Even if God were to change the real identity in some extraordinary manner, the personal identity would remain, provided that the man preserved the appearances of identity—the inner ones (i.e. the ones belonging to consciousness) as well as outer ones such as those consisting in what appears to other people. Thus, consciousness isn't the only means of establishing personal identity, and its deficiencies can be made up by other people's accounts or even by other indications. But difficulties arise when there is a conflict

between these various appearances. Consciousness may stay silent, as in loss of memory; but if it spoke out plainly in opposition to the other appearances, we would be at a loss to decide and would sometimes be suspended between two possibilities: that the memory is mistaken or that outer appearances are deceptive.

Phil: 11 It will be said that the limbs of each man's body are parts of himself and that therefore, since his body is in constant flux, the man cannot remain the same.

Theo: I would rather say that the *I* and the *he* don't *have* parts, since we say quite correctly that *he* continues to exist as really the same substance, the same physical *I*, but we can't be speaking quite correctly if we say that the same •whole continues to exist when a •part of it is lost. And what has bodily parts cannot avoid losing some of them at every moment.

Phil: 13 If consciousness of a past action somehow included *that past action* itself, *then* of course the consciousness of one's past actions couldn't be transferred from one thinking substance to another; and our having a sense of ourselves as the same would render it certain that the same substance remained. But in fact, of course, our consciousness of a past action involves only a present *representation* of the past action; and no-one has shown why it isn't possible for something that never really happened to be represented to the mind as having happened.

Theo: We can be deceived by a memory across an interval—one often experiences this, and we can conceive of a natural cause of such an error. But a present or immediate memory, the memory of what was taking place immediately before—or in other words, the consciousness or reflection that accompanies inner activity—can't naturally deceive us.

If it could, we wouldn't even be certain that we *are* thinking about such and such a thing; for this too is silently said only about past actions, not about the very action of saying it. [When Theophilus says 'this too', he seems to mean "I think" as well as "I remember". That amounts to saying that so-called 'reflection' on our present inner activities is really *extremely short-term memory* of activities that have just occurred.] But if immediate inner experience isn't certain, we can't be sure of any truth of fact. I have already said that there can be an intelligible reason for the element of error in perceptions that are mediate and outer, but with regard to immediate inner ones such a reason couldn't be found except by resorting to God's omnipotence.

Phil: 14 Now for the question:

Could there be two distinct persons involving a single immaterial substance?

This seems to me to be built on the following question:

Can a single immaterial thing be stripped of all sense of its past existence, and lose it beyond the power of ever retrieving again, thus opening up a new page in the account-book (as it were) and having a consciousness that can't reach further back than this?

All those who believe in pre-existence of souls would evidently answer Yes. I once met a learned, intelligent, highly placed and well-respected man who was convinced that his soul had once been the soul of Socrates. For all we know to the contrary, souls can inhabit any portion of matter as well as any other, so that the supposition of a single soul's passing from one body to another has no apparent absurdity in it. But this man, now having no sense of anything that Nestor or Socrates ever did or thought, can he think of himself as the same *person* as either of them? Can he be concerned in the actions of either? Can he attribute those actions to himself, or think of them as *his* any more than the actions

of any other man who existed in the past? He is no more the same person as one of them than he would be if the soul that is now in him had been created when it began to operate in his present body. He would no more be made the same person as Nestor by this—i.e. by

his having the soul that used to be Nestor's

— than by

his having in his body some of the particles of matter that were once a part of Nestor.

For •sameness of person is not created by •sameness of immaterial substance without the same consciousness, any more than it is created by •sameness of particles of matter without a common consciousness.

Theo: An immaterial being or spirit *can't* be stripped of all perception of its past existence. It retains •impressions of everything that has previously happened to it, and it even has •presentiments of everything that will happen to it; but these states of mind are mostly too tiny to be distinguishable and for one to be aware of them, although they may perhaps grow some day. It is this continuity and interconnection of perceptions that make someone •really the same individual; but our awarenesses—i.e. when we are aware of past states of mind—prove a •moral identity as well, and make the real identity appear. The pre-existence of souls doesn't appear to us through our perceptions, but if it really did occur it could some day make itself known. So it is unreasonable to think that memory might be lost beyond any *possibility* of recovery, since insensible perceptions, whose usefulness I have shown in so many other important connections, serve a purpose here too—*preserving the seeds of memory*. . . . I have explained earlier [page 101] a way in which the migration of souls is possible (though it doesn't appear likely), namely that souls might, while retaining •rarefied bodies, whip across

into other •coarse bodies. If migration really did occur—at least, if it occurred like that—then the same individual would exist throughout, in Nestor, in Socrates and in some modern man; and it could even let its identity be known to someone who penetrated deeply enough into its nature, by means of the impressions or records of all that Nestor or Socrates had done, which remained in it and could be read there by a sufficiently acute mind. Yet if the modern man had no way, inner or outer, of knowing •what he has been, it would from a moral point of view be as though he had never been •it. But it appears that nothing in the world lacks significance—indeed, *moral* significance—because God reigns over the world and his government is perfect. According to my hypotheses, it is not true—as it seems to you to be—that a soul can inhabit any portion of matter as well as any other. On the contrary, a soul inherently expresses those portions of matter with which it is and must be united in an orderly way. So if it passed into a new coarse or sensible body, it would still retain the expression of everything of which it had had any perception in the old body; and indeed the new *body* would have to feel the effects of it, so that there will always be real marks of the continuance of the individual. But whatever our past state may have been, we can't always be aware of the effect that it leaves behind. Locke remarks in 27 that his suppositions or fictions about the migration of souls—considered as being possible—rest partly on the fact that the mind is commonly regarded not merely as independent of matter but also as being able to combine with any kind of matter as well as with any other. I hope that what I have said about this in one place and another will clear up this uncertainty and provide a better grasp of what can naturally happen. It shows in what way the actions of an ancient would belong to a modern who possessed the same soul, even though he was unaware of them. But if it did come to be known, that would imply

personal identity in addition. What makes the same human individual isn't •a portion of matter that passes from one body to another, nor is it •what we call *I*; rather, it is •the soul.

Phil: 16 However, as between

•an action that was performed a thousand years ago and now made mine by this self-consciousness that I now have of it as something that I have done,

and

•an action that I performed a moment ago,

I am as much concerned for the former as for the latter, and as justly accountable for it too.

Theo: This belief that we have done something can deceive us if the action was long ago. People have mistaken their dreams for reality, and have come to believe their own stories by constantly repeating them. Such a false belief can get one into tangled difficulties, but it can't make one liable to punishment if there are no other beliefs confirming it. On the other hand, one can be accountable for what one has done, even if one has forgotten it, provided that there is independent confirmation of the action.

Phil: 17 Everyone finds daily that while his little finger falls under that consciousness, it is as much a part of him as anything is.

Theo: I said in **11** why I wouldn't wish to maintain that my finger is part of me; but it is true that it *belongs* to me and is a part of *my body*.

Phil: Those who hold a different view will say: when this little finger is separated from the rest of the body, if this consciousness left the rest of the body and went along with the little finger, it is obvious that the little finger would then

be the person, the same person; and *self* would then have nothing to do with the rest of the body.

Theo: Nature doesn't permit these fictions, which are ruled out by the system of harmony, i.e. of the perfect correspondence between soul and body.

Phil: 18 It seems, though, that if the same body still lived and had a consciousness all of its own of which the little finger knew nothing—and if nevertheless the soul was in the finger—the finger couldn't acknowledge any of the actions of the rest of the body, and one couldn't attribute them to it.

Theo: Nor would the soul that was in the finger *belong* to this body. I admit that if God transferred a consciousness from soul *x* to soul *y*, we would have to treat *y* according to moral notions as though it were *x*. But this would disrupt the order of things for no reason, divorcing •what can come before our awareness from •the truth—the truth that is encapsulated, •out of our awareness•, in insensible perceptions. That wouldn't be reasonable, because perceptions that are now insensible may grow some day: nothing is useless, and eternity provides great scope for change.

Phil: 20 Human •laws don't punish the madman for the sane man's actions, or the sane man for what the madman did; so •they make them two persons. We go along with this when we say that someone 'is besides himself'.

Theo: The laws threaten punishments and promise rewards in order to discourage evil actions and encourage good ones. But a madman may be in a condition where threats and promises barely influence him because his reason is no longer in command; and so the severity of the penalty should be relaxed in proportion to his incapacity. On the other hand, we want the criminal to have a sense of the effects of the evil he has done, in order to increase people's fear of committing

crimes; but since the madman isn't sufficiently sensitive, we are content to postpone for some time carrying out the sentence by which we punish him for what he did while in his right mind. Thus what laws and judges do in these cases isn't the result of their supposing that two persons are involved.

Phil: 22 Indeed, Locke raises this objection against his own view: if a man who is drunk and who then becomes sober isn't the same person, he oughtn't to be punished for what he did while drunk, since he no longer has any sense of it. He replies that this man is just as much the same person as a man who walks and does other things in his sleep is the same person, and is accountable for anything he does in his sleep.

Theo: There is a great deal of difference between the actions of a drunk man and of a true and acknowledged sleepwalker. We punish drunkards because they could stay sober and may even retain some memory of the punishment while they are drunk. But a sleepwalker is less able to abstain from his nocturnal walk and from what he does during it. Still, if it were true that a good beating on the spot would make him stay in bed, we would have the right to beat him—and we would do so, too, though this would be a remedy rather than a punishment. . . .

Phil: Human laws punish both ·the drunkard and the sleep-walker· with a justice suitable to the kind of knowledge men can have in such matters. In these sorts of cases, we can't distinguish certainly what is real and what counterfeit; so ignorance in drunkenness or sleep isn't admitted as a plea. The fact ·of what he did· is proved •against him, and his not being conscious of it can't be proved •for him.

Theo: The real question isn't so much •that as •what to do when it has been well established—as it can be—that the

drunkard or the sleepwalker really was 'beside himself'. In that case the sleepwalker can only be regarded as the victim of a mania; but since drunkenness is voluntary and sickness is not, we punish the one and not the other.

Phil: But in the great and fearful day of judgment on which the secrets of all hearts will be laid open, we are entitled to think •that no-one will be held accountable for actions that he knows nothing of, and •that everyone will be told his fate with his conscience accusing or excusing him.

Theo: I doubt that man's memory will have to be raised up on the day of judgment so that he can remember everything that he had forgotten; I think the knowledge of others, and especially of ·God·, the just judge who is never deceived, will be enough. One could invent the fiction—not much in accord with the truth but at least *possible*—that a man on the day of judgment believed himself to have been wicked, and that this also appeared true to all the other created spirits who were in a position to offer a judgment on the matter, even though it wasn't the truth. Dare we say that the supreme and just judge, the only one who knew the truth of the matter, could damn this person and judge contrary to his knowledge? ·Surely not!· Yet this seems to follow from the notion of 'moral person' that you offer. It may be said ·in defence of your view· that if God judges contrary to appearances he won't be sufficiently glorified and will bring distress to others; but it can be replied that God is himself his own unique and supreme law, and that in this case the others should conclude that they were mistaken.

Phil: 23 Consider the following two possibilities:

- (1) Two distinct consciousnesses with no communication between them act alternately in the same body, the one always by day, the other always by night;

(2) A single consciousness acts in two distinct bodies, turn about.

In case (1), wouldn't the day-man and the night-man (so to speak) be *two persons*, as distinct from one another as Socrates was from Plato? And in case (2), wouldn't this be *one person* in two distinct bodies? It isn't relevant that (1) this single consciousness that affects two different bodies is introduced into them by a single immaterial substance, and that (2) these two consciousnesses that affect the same body at different times are introduced into it by two distinct immaterial substances; because the personal identity would in each case be determined by the consciousness, whether or not that consciousness was joined to some individual immaterial substance. Furthermore, an immaterial thinking thing may sometimes lose sight of its past consciousness, and then recall it again. Make these intervals of memory and forgetfulness take their turns regularly by day and night, and you have *two persons* with *one* immaterial spirit. Thus, selfhood isn't determined by identity or non-identity of •substance, which one can't be sure of, but only by identity of •consciousness.

Theo: I acknowledge that if all the appearances of one mind were transferred to another, or if God brought about an exchange between two minds by giving to one the visible body of the other and its appearances and states of consciousness, then personal identity wouldn't be tied to the identity of substance but rather would go with the constant appearances, which are what human morality must give heed to. But these appearances would not consist merely in states of consciousness: God would have to exchange not only the states of awareness or consciousness of the individuals concerned, but also the appearances that were presented to others; otherwise what the others had to say

would conflict with the consciousnesses of the individuals themselves, which would disturb the moral order. Still, you have to grant me that the ·supposed· divorce between

the insensible and sensible realms,

i.e. between

the insensible perceptions that remained in the same substances and the states of awareness that were exchanged,

would be a *miracle*—like supposing God to create a vacuum! For I have already explained why this is not in conformity with the natural order. Here is something we could much more fittingly suppose:

In another region of the universe. . . there is a sphere that is •in no way perceptibly different from this sphere of earth on which we live, and is •inhabited by men each of whom differs in no perceptible way from his counterpart among us. Thus at one time there will be more than a hundred million *pairs* of similar persons, i.e. pairs of persons where the members of each pair have the same appearances and states of consciousness.

God could transfer the minds, by themselves or with their bodies, from one sphere to the other without their being aware of it; but whether they are transferred or left where they are, what would Locke say about their 'persons' or 'selves'? Given that the states of consciousness and the inner and outer appearances of the men on these two spheres can't yield a distinction between them, are they two persons or are they one and the same? It's true that they could be told apart by God, and by minds that were capable of grasping the spatial distance between the spheres. . . and even the inner constitutions of the men on the two spheres—constitutions of which the men themselves are not sensible. But since according to your theories consciousness alone distinguishes

persons, with no need for us to be concerned about the real identity or diversity of substance or even about what would appear to other people, what is to prevent us from saying that these •two persons who are at the same time in these two similar but enormously distant spheres are •one and the same person? Yet that would obviously be absurd. I will add that if we are speaking ·not of bare logical possibility, but· of what can *naturally* occur, the two similar spheres and the two similar souls on them could remain similar only for a time. Since they would be numerically different—·i.e. since they would be *two*·—there would have to be a difference at least in their insensible constitutions, and the latter must unfold in the fullness of time ·into something sensible·.

Phil: 26 Suppose a man is ‘punished’ now for what he did in another life, of which he can’t be made in the least conscious, what difference is there between such treatment and the treatment he would get in simply being *created miserable*?

Theo: Platonists, Origenists, certain Hebrews and other defenders of the pre-existence of souls have believed that the souls of this world were put into imperfect bodies to make them suffer for crimes committed in a former world. But the fact is that if one doesn’t know the truth of the matter, and will never find it out either by recalling it through memory or from traces or from what other people know, it can’t be called ‘punishment’ according to the ordinary way of thinking. If we are to speak quite generally of punishment, however, there are grounds for questioning whether it is absolutely necessary that those who suffer should themselves eventually learn why, and whether it would not quite often be sufficient that those punishments should afford, to other and better informed Spirits, matter for glorifying divine justice. Still, it is more likely, at least in general, that the sufferers will learn why they suffer.

Phil: 28–9 Perhaps, all things considered, you can agree with Locke when he concludes his chapter on identity by saying that the question of whether *the same man* remains is a verbal one, depending on whether we understand ‘a man’ as standing for

•a rational spirit or •a body of the form we call ‘human’
or •a spirit united with such a body.

On the •first account, the spirit that is separated (from the coarse body at least) will still be a man; on the •second, an orang-outang that was exactly like us apart from reason would be a man, and if a man lost his rational soul and acquired the soul of a beast he would remain the same man. On the •third account both must remain, still united to one another—the same spirit and the same body too, in part, or at least its equivalent as regards sensible bodily form. Thus one could remain the same being physically (the same substance), and morally (the same person), without remaining a man, ·let alone remaining the same man·. That’s where we come out if we follow the third account in regarding this shape as essential to the identity of the man.

Theo: I admit that there is a verbal question here. And the third account is like the same animal being at one time a caterpillar or silk-worm and at another a butterfly. . . . But we have met to discuss more important matters than the meanings of words. I have shown you the basis of true physical identity, and have shown that it doesn’t clash with moral identity or with memory either. [See the explanation of ‘physical’ in the middle of page 102.] And I have also shown that although moral identity and memory can’t always indicate a person’s physical identity, to the person in question or to his acquaintances, they never run counter to physical identity and are never totally divorced from it. Finally, I have shown that there are always created spirits who do or can know the

truth of the matter, and that there is reason to think that things that make no difference from the point of view of the

persons themselves *will* make such a difference eventually.

Chapter xxviii: Certain other relations, especially moral relations

Philaethes: 1 Besides the relations based on time, place and causality that we have just been discussing, there are countless others of which I shall mention a few. Any simple idea that is capable of •parts or •degrees provides an opportunity for comparing the things that have it, e.g. ‘whiter’, ‘less white’ or ‘equally white’. A relation of this kind may be called *proportional*.

Theophilus: But there is a way in which one thing can be greater than another although they aren’t proportional. They then differ by what I call an ‘imperfect magnitude’. An example is provided by the statement that

The angle that a radius makes with the arc of its circle is less than a right angle;

for •the radius-to-arc angle can’t stand in any proportion to •the right angle, and neither of those can stand in any proportion to •the angle between them.

Phil: 2 Another opportunity for comparing things is provided by *the circumstances of their origin*, on which are based the relations father and child, brothers, cousins, compatriots. It would hardly occur to any speaker of our language to say ‘This bull is the grandfather of that calf’ or ‘These two pigeons are first cousins’. That is because languages are adapted for common use. But in some countries where they care more about their horses’ pedigrees than about their own they have

not only names for particular horses but also labels for their various blood-relationships.

Theo: [He reports various facts about how ‘the ideas and names pertaining to family’ have been handled in various countries. Then:] It remains to say that •blood-relationship is what you have when the two people whose relationship is in question have a common origin; and one could say that •alliance or •affinity is what holds between two people if

they can be blood-related to some one person without thereby being blood-related to one another

—which can happen through the intervention of marriages, ·as with the ‘affinity’ between someone and his sister-in-law·. But by that definition there is ‘affinity’ between husband and wife, and we don’t ordinarily use ‘affinity’ in that way (their marriage causes affinities between others). So perhaps it would be better to say that •affinity is what holds between two people if

they *would* be blood-related *if* some husband and wife were taken to be a single person.

Phil: 3 Sometimes a relationship is founded on a moral right: the relation of a general to the army he commands, for instance, or that of citizen ·to the state to which he belongs·. Because these relations depend on agreements that men have made among themselves, I call them ‘instituted’

or 'voluntary' relations, to distinguish them from natural relations. Sometimes there is a name for each of the two related things, as with patron and client, general and soldier; but that isn't always the case—for instance there is no name for those who have the relevant relationship to a chancellor.

Theo: We sometimes decorate and enrich natural relations by associating them with •moral ones. For example, offspring have the right to •claim their legitimate inherited share of their parents' estates; young people are subjected to certain •restraints, and the old are granted certain •immunities. But it can also happen that something is taken to be a natural relation though it really isn't one, as when the law defines 'father of a child' as 'man who was wedded to the child's mother at a time that makes it possible to regard the child as his'. This replacement of a *natural* relation (•biological fatherhood•) by an *instituted* one (•marriage to the mother at the time of conception• sometimes merely expresses a presumption, i.e. a judgment that treats something as true as long as it isn't proved to be false. . . .

Phil: 4 *Moral* relation is the conformity or disagreement that men's voluntary actions have to a rule that lets them be judged morally good or morally bad. **5** Moral good (evil) is the conformity (disagreement) of our voluntary actions to some law through which natural good (evil) is drawn on us by the will and power of the lawmaker or of someone seeking to uphold the law, this being what we call 'reward' ('punishment').

Theo: Writers as able as Locke are entitled to adapt terms as they see fit. But all the same, according to that account a single action could be morally good and morally bad at the same time under different legislators, •fitting one set of laws and not another•. Similarly, in an earlier passage Locke took *virtue* to be whatever is praised [page 28], so that

a single action would be virtuous or not depending on what men thought about it. Since that isn't the ordinary sense of 'morally good' or of 'virtuous' as applied to actions, I for one would prefer to measure moral worth and virtue by the unchanging rule of reason that God has undertaken to uphold. We can then depend on him to bring it about that every •moral good becomes a •natural good. . . . But according to Locke's notion of •what he calls• •moral good (evil), it is really an •instituted good (evil)—something imposed on us by whoever has the reins of power in his hand and tries through rewards (punishments) to make us seek (avoid) it. The odd thing is that whatever is •instituted by God's general commands •is not only •morally good but• also conforms to •nature, i.e. to reason, •so that when God's will is the touchstone the three categories coincide•.

Phil: 7 There are three sorts of laws. **(1)** The divine law, which is the standard for sins or duties. **(2)** The civil law, the standard for whether actions are criminal or innocent. **(3)** The law of opinion or reputation, the standard for virtues or vices.

Theo: In the ordinary senses of the words, virtues differ from duties and vices from sins only as general dispositions differ from actions. •Thus, for example, honesty is a virtue and a particular honest act is a duty; undue reliance on alcohol is a vice and a particular drunken spree is a sin•. And virtue and vice aren't ordinarily taken to be matters that depend on *opinion*. A grave sin is called a 'crime'; and 'innocent' is contrasted not with 'criminal' but with 'guilty'. There are two sorts of divine law: natural and positive. [Natural laws are just laws of nature, called 'divine' because God set them up. A 'positive' law is one that someone laid down as a law; so divine positive laws would be ones that God explicitly and separately laid down, as distinct from ones that are inherent in the *natural* realm that he created.] Civil law

is positive. The ‘law of reputation’ can’t properly be called *law* unless it is included in the natural law. We talk like that when we speak of ‘the law of health’ in contexts where one’s actions can naturally bring one good health, ‘the law of business’ where one’s actions can naturally bring monetary gain. So we *could* speak of ‘the law of reputation’ in contexts where one’s actions can bring general approval.

Phil: 10 ‘Virtue’ (‘vice’) are labels that everyone claims stand for actions that are *in their own nature* right (wrong); and to the extent that they really are applied in that way •virtue agrees perfectly with •the natural divine law. But whatever people claim, when we look at each particular instance in which these labels are applied it is *obvious* that they are applied only to actions that are approved of (disapproved of) in the country or society concerned. Otherwise, men would condemn themselves. Thus the measure of what is called ‘virtue’ or ‘vice’ is this approval or dislike, esteem or blame, which the whole community agrees on without openly discussing it. When men unite to form states or political communities, they hand over to the public the use of all their force, so that they can’t employ it against any fellow-citizen beyond what the law permits, but they keep for themselves the power of thinking well or badly, approving or disapproving.

Theo: If Locke were to declare that he has chosen to give this as an arbitrary nominal definition of the words ‘virtue’ and ‘vice’, one could only say that he is entitled to do that in his theory if it helps him to express himself, e.g. for lack of other terms; but one would have to add that this meaning doesn’t square with ordinary usage and isn’t very uplifting, and that if anyone tried to get it accepted in daily life and daily speech it would sound bad to many people—as Locke himself seems to acknowledge in his Preface. But what we are offered here

is something more: although you admit that men •purport to be speaking of what is virtuous or vicious according to unchanging laws, you allege that they •really mean to speak only of something that is a matter of opinion. But it seems to me that your reasons for that would be equally reasons for holding that •truth and •reason and •everything we think of as most real are also matters of opinion, on the grounds that people make erroneous judgments about them! Wouldn’t it be altogether better to say •that people do understand virtue—like truth—as something conforming to nature, but •that they often go wrong in particular judgments about what is virtuous? And they aren’t wrong as they are thought to be, for what they praise usually deserves it in some respects. The drinker’s virtue, i.e. the ability to hold one’s wine, can be an advantage. . . . The Spartans praised the cunning of thieves; and there is nothing blameworthy in that skill but only in the misuse of it. Some of those •violent criminals• who are painfully executed in peace-time could make excellent irregular soldiers in time of war. . . . Also, the idea that ‘men might condemn themselves’ shouldn’t be thought of as very strange: they do it very often, e.g. when they do things that they condemn others for doing. There are often public scandals concerning contradictions between words and actions, in cases where no-one can help seeing that a magistrate or preacher is doing what he forbids to be done.

Phil: 11 What counts as virtue is everywhere what is thought praiseworthy. Virtue and praise are called often by the same name. . . . Cicero says ‘Nature knows nothing more excellent than honesty, praise, dignity, honour’, and a little further on he adds: ‘By these various terms I wish to indicate one and the same thing.’

Theo: It is true that in the ancient world virtue was called ‘honesty’. . . .and it is also true that honesty is called ‘honour’

or 'praise'. What that means, though, isn't that virtue is whatever is praised but that it is whatever is *worthy of* praise, and that depends on the truth and not on opinion.

Phil: 12 Many people give no serious thought to the •law of God, or else they hope that they will some day be reconciled with its author; and they soothe themselves with hopes of impunity with respect to the •law of the state. But no man who offends against the opinion of the people he associates with and wants to be respected by thinks that he can escape the punishment of their censure and dislike. Nobody that has any sense of his own nature can live in society constantly despised. Such is the force of the •law of reputation.

Theo: I have already said that that isn't so much a •legal punishment as a •natural one that is brought on by the action itself. In fact, though, many people hardly care about it, because if they are despised by those who condemn something they have done, they usually find accomplices or at least allies who don't despise them—just so long as they do in some other way deserve a measure of respect, however small. Even the most infamous actions are forgotten; and often the culprit has only to be sufficiently bold and shameless. . . .for the slate to be wiped clean. If excommunication ·by the church· gave rise to enduring and universal contempt, it would be as compelling as the 'law' of which Locke speaks; and it really *did* have that force among the first Christians—they had no legal powers to punish the guilty, and used excommunication instead. In somewhat the same way, craftsmen uphold certain customs amongst themselves—not looking to the law of the state for help—through the contempt they exhibit towards those who don't conform. That is also why duels still happen although

they are illegal. One could wish that the populace were in agreement with each other and with reason in the distribution of praise and blame; and in particular that people of rank would refrain from sheltering villains by treating bad actions as a joke in which—most of the time, it seems—it isn't the malefactor but the victim who is punished by contempt and made to look ridiculous. And just as commonly men will be found to despise not so much •vice as •weakness and •misfortune. Thus the 'law of reputation' needs to be thoroughly reformed and also to be better obeyed.

Phil: 19 Before leaving the topic of relations I would remark that our notion of a relation is usually as clear as—or even clearer than—our notion of its basis. If I believed that Sempronia become the mother of Titus by taking him from under a cabbage (as they use to tell children) and that later she had Caius in the same manner, I would have as clear a notion of the relation ' . . . brother of . . . ' between them as if I had all the skill of a midwife!

Theo: Yet one time when a child was told that his new-born brother had been drawn from a well (which is how the Germans satisfy children who are curious about this matter), the child replied that he was surprised they didn't throw the baby back into the same well when it troubled its mother by crying so much. My point is that the drawn-from-a-well account didn't explain to him the love the mother showed towards the baby. It can be said, then, that if someone doesn't know the basis of a relation his thoughts about it are partly of the kind I call 'blind', and are also insufficient, even though they may suffice in some respects and in some situations.

Chapter xxix: Clear and obscure, distinct and confused ideas

Philaethes: 2 Let us now turn to certain differences among ideas. A simple idea is **clear** when it is like the idea one would get from perceiving, under ideal circumstances, the object that it is an idea *of*. While the memory keeps it like that it is a clear idea. When it comes to lack any of that original exactness, or to lose any of its first freshness and to become (as it were) faded or tarnished by time, to that extent it is **obscure**. Complex ideas are clear when •the simple ideas that make them up are clear and •the number and order of those simple ideas is determinate.

Theophilus: In a short discussion of ideas—true and false, clear and obscure, distinct and confused—that appeared in thirty years ago I gave a definition of ‘clear idea’ which applied both to simple and to composite ideas; and it provides an explanation for what is said about them here. I say that an idea is clear when it enables one to recognize the thing and distinguish it from other things. For example, when I have a really clear idea of a colour I shan’t accept some other colour in place of it; and if I have a clear idea of a plant, I shall pick it out from others that are close to it—and if I can’t do that my idea is obscure. I believe that we have hardly any perfectly clear ideas of sensible things: some colours are alike in such a way that one can’t tell them apart in memory but will sometimes tell them apart when they are laid side by side. Again, when we think we have thoroughly described a plant, someone may bring from the Indies a plant that exactly fits everything we have put into our description and which nevertheless we can see belongs to a different species. So we can never be sure of having an account of a lowest species [= ‘a species that isn’t divisible into sub-species’].

Phil: 4 So, •to repeat what I have just said and to go on from there•,

- a **clear** idea is one of which the mind has as full and evident a perception as it would get from an outward object operating properly on a functioning sense-organ;
- a **distinct** idea is one in which the mind perceives a difference from all other ideas, and
- a **confused** idea is one that isn’t sufficiently distinguishable from some other idea from which it ought to be different.

Theo: On this account of what a distinct idea is, I don’t see how to distinguish it from a clear one. So in this matter I always follow Descartes’s usage, according to which an idea can be at once **clear and confused**, as are the ideas of sensible qualities that are associated with particular organs, e.g. the ideas of colour and of warmth. [Descartes did make the astonishing statement that something can be at once ‘clear and confused’, and also that pain is essentially ‘clear’—*according to the standard English translations of his works*. In fact, the translations are all wrong. Descartes used the French *clair* and the Latin *clarus* in their quite normal senses of ‘bright’, ‘vivid’ and the like. For a fuller account of this matter, see the long note at 1:47 in Descartes’s *Principles of Philosophy* in the version at www.earlymoderntexts.com. Leibniz seems mainly to have understood *clair* in Descartes’s manner; but, given that we are also dealing with Locke’s use of ‘clear’, it isn’t possible for this version to sort the whole matter out.] They are •clear because we recognize them and easily tell them apart, but they aren’t •distinct because we can’t distinguish their contents. It’s because they are not distinct that we can’t define these ideas, and can make them known only through examples and apart

from that can only say that they are a *je ne sais quoi*—an I-don't-know-what. (When their inner structure has been deciphered we'll be able to do better than that, and actually define them.) Thus, although according to us—that is, Descartes and me—•distinct ideas *do* distinguish one object from another, so also do ideas that are clear though in themselves •confused; so we don't apply the label 'distinct' to all the

(1) ideas that are distinguishing, i.e. that distinguish objects,

but only to the

(2) ideas that are distinguished, i.e. that are in themselves distinct and that •distinguish in the object the marks by which it is recognized, thus yielding an •analysis or •definition.

Ideas that aren't 'distinct' in this sense we call 'confused'. •For instance the idea of *redness*: we can (1) sort out red things from non-red things, but we can't (2) •say what the marks or criteria are through which we recognize something as red, or conduct an •analysis of the concept of red, or give a •verbal definition of 'red'. On this view •of mine, *we* aren't to blame for the confusion that reigns among our ideas, for this is an imperfection in our nature: to pick out the causes of odours and tastes, for instance, and the content of these qualities, is beyond us. But I *am* to blame for the confusion in a case where distinct ideas are within my power and it matters that I should have them, for example if I accept spurious gold as genuine because I haven't conducted the tests that bring out the marks of real gold.

Phil: 5 But it will be said that no idea is confused (or, as you would say, obscure) *in itself*, since any given idea has to be as the mind perceives it to be, and that sufficiently distinguishes it from all other ideas. •That threatens us

with having no use for 'confused' ('obscure') in application to ideas, for what's the use of an adjective that applies to everything? •6 To remove this difficulty we have to take it that the fault in question (confusion or obscurity) is one that an idea can have •not •in itself but •in relation to names: what makes an idea confused or obscure is its being such that it could just as well be called by some other name than the one it is expressed by.

Theo: It shouldn't be made a matter of names, it seems to me. Alexander the Great is reported to have seen in a dream a plant that he dreamed would cure his friend Lysimachus. . . . He had many plants brought to him, among which he recognized the one he had seen in his dream. But suppose that by bad luck his idea of the plant hadn't sufficed for it to be recognized, so that he needed to be taken back over the dream itself: obviously in that case his idea would have been imperfect and obscure (which I prefer to calling it 'confused'), not because

it didn't relate properly to some •name

(for he had no name for it), but

because it didn't relate properly to the •thing,

i.e. to the medicinal plant. This would be a case where Alexander had remembered some details while being unsure about others. Names serve to designate things, which is why someone who goes wrong in relating an idea to a name will usually go wrong about the thing he wants the name to stand for.

Phil: 7 Composite ideas are the most liable to this imperfection, and it can result from an idea's being made up of too few simple ideas. For example the idea of *a beast with spots*, which is too general and doesn't suffice to distinguish amongst the lynx, the leopard and the panther, although each of these is distinguished by its own particular name.

Theo: Our ideas could still be defective in this way even if we were in the same position as Adam was before he had named the animals. If one knew that among the spotted beasts there was one with extraordinarily penetrating vision, but didn't know whether it was the tiger or the lynx or some other species, that inability to distinguish it would be an imperfection. So it isn't so much a matter of a •name as of •the reality that can provide a subject for the name, and which makes the animal worthy of its own particular name. What emerges from this is that the idea of *a beast with spots* is good in itself, and not at all confused or obscure, if its only role is to mark the •genus; but if the •species is to be designated by a complex idea whose ingredients include that one and also some other insufficiently remembered idea, then that complex idea is obscure and imperfect.

Phil: 8 An opposite defect occurs when the simple ideas that make a composite one are numerous enough but are too jumbled and disorderly; like a picture that seems so confused that it is fit only to represent a cloudy sky. If a picture *did* represent a cloudy sky, then it wouldn't be said to involve confusion, any more than would a second picture that was made in imitation of the first picture! But if the picture is said to be *a portrait* then it can rightly be called 'confused' because one can't tell whether it depicts a man or a monkey or a fish. But it can happen that when the picture is viewed in a cylindrical mirror the confusion disappears and one sees that it is a •picture of• Julius Caesar. Thus, none of these mental pictures (so to speak) can be called 'confused' •in itself•, however its parts are put together; for the pictures, whatever they are like, can be plainly distinguished from all others so long as they are not brought under some ordinary name which, as far as one can see, doesn't fit them any better than does some other name with a different meaning.

Theo: This •picture whose parts one sees distinctly without seeing what they result in until one looks at them in a certain way is like •the idea of *a heap of stones*, which is truly confused—not just in your sense •of 'confused'• but also in mine—until one has distinctly grasped how many stones there are and some other properties of the heap. If there were thirty-six stones, say, one wouldn't know just from looking at them in a jumble that they could be arranged in a triangle or in a square—as in fact they could, because thirty-six = 3×12 and also = 4×9 . Similarly, in looking at a thousand-sided figure one can have only a confused idea of it until one knows the number of its sides, which is 10^3 . So what matters aren't •names but the distinct •properties that the idea must be found to contain when one has brought order into its confusion. It is sometimes hard to find the key to the confusion—the way of viewing the object that shows one its intelligible properties; rather like those pictures that Father Nicéron has shown how to construct, which must be viewed from a special position or by means of a special mirror if one is to see what the artist was aiming at.

Phil: 9 Still, it can't be denied that ideas may be defective in a third way that really *does* depend on the misuse of names, namely when our ideas are uncertain or undetermined. We encounter this every day: men who don't hesitate to use the ordinary words of their language before learning their precise meanings change the ideas they make the words stand for almost as often as they use them in their discourse! **10** So we can see what a lot *names* have to do with words' being called 'distinct' or 'confused'. It will be hard to say what it is for an •idea to be confused •or not distinct• if we don't bring in distinct •names as the signs of •distinct things.

Theo: Yet I have just explained it without bringing in names—both when 'confusion' is taken in your sense to stand for

what I call ‘obscurity’ and when it is taken in my sense to stand for one’s having a notion for which one doesn’t have an analysis. I have also shown that every obscure idea is in fact indeterminate or uncertain—as in the case where one has seen a beast with spots and one knows that something must be combined with this general notion but doesn’t clearly remember what. So the first and third defects that you have listed amount to the same thing. Still, it is certainly true that many mistakes do arise from the misuse of words, for it results in a kind of error in calculation—as though in calculating one failed to note carefully the position of each counter, or wrote the numerals so badly that one couldn’t tell a 2 from a 7, or carelessly changed or omitted something. This misuse of words may consist either in **(1)** not associating a word with any idea at all, or else in **(2)** associating a word with an imperfect idea of which a part is empty, left blank so to speak; and in either of these cases the thought contains a gap or a ‘blind’ part that is filled only by the name. Or the defect may consist in **(3)** associating several different ideas with a word; one may be unsure which idea should be selected (in which case the idea is obscure, just as much as when a part of it is ‘blind’); or it may be that one selects them turn about, ignoring the discrepancies amongst them and using first one and then another as the sense of a single word in a single argument, in a way that is apt to generate error. Uncertain thought, then, either **(1, 2)** is empty and lacks ideas, or **(3)** floats amongst two or more ideas. This does harm if we want to indicate something determinate, or if we want to hold a word to one particular sense that we have previously given it or in which it is used by others—especially in the ordinary language of the populace at large or of the experts. It generates no end of pointless, shapeless disputes in conversations, in lecture-halls and in books. . . .

Phil: 12 If there is any confusion of ideas other than •that which has a secret reference to names, at least it is •the latter that has done most to disorder men’s thoughts and discourses.

Theo: I agree about that; but some notion of the thing, and of one’s purpose in using the name, is usually involved as well. . . .

Phil: The way to prevent such confusion is to associate each name steadily with a certain collection of simple ideas united in a determinate number and order. But although we may *wish* that men would behave like that, it would be too optimistic to *hope* that they will do so. The trouble is that it doesn’t make thought and talk easier, and doesn’t do anything for men’s vanity. Indeed, all it is good for is something that isn’t always what men are aiming at—namely discovering and defending the truth! Loosely associating names with

undetermined ideas,

variable ideas, and

(in blind thoughts) almost no ideas,

serves both •to cover the speaker’s ignorance and—this being regarded as real learnedness and as a sign of superior knowledge—•to perplex and confound others.

Theo: These language troubles also owe much to people’s straining to be elegant and fine in their use of words. If it will help them to express their thoughts in an attractive way they see no objection to employing figures of speech in which words are diverted slightly from their usual senses. . . . Such figures of speech are given names (such as ‘synecdoche’ and ‘metaphor’) *when they are noticed*, but usually they aren’t. Given this indeterminacy in the use of language, a situation where we need · but don’t have· some kind of laws governing the signification of words. . . ., what is a

judicious person to do? If in writing for ordinary readers he abides strictly by fixed meanings for the terms he uses, he will be depriving himself of the means for making what he writes attractive and forceful. What he must do—and this is enough—is to be careful not to let the variations generate errors or fallacious reasoning. The ancients distinguished the ‘exoteric’ or popular mode of exposition from the ‘esoteric’ one that is suitable for those who seriously want to discover the truth; and that distinction is relevant here. If anyone wants to write like a mathematician in metaphysics or moral philosophy there’s nothing to stop him from rigorously doing so; some have announced that they would do this, and have promised us mathematical demonstrations outside mathematics, but hardly ever has anyone succeeded. I believe that people are repelled by the amount of trouble they would have to take for a tiny number of readers. . . . Yet I think that if anyone did go about it in the right way, he would have no reason to regret his labour. I have been tempted to try it myself.

Phil: 13 You will agree with me, though, that composite ideas may be very clear and distinct in one part and very obscure and confused in another.

Theo: There are no grounds for questioning that. For instance, we have very distinct ideas of a good proportion of the •solid, visible parts of the human body, but we have almost none of the bodily •fluids.

Phil: In a man who speaks of ‘a body of a thousand sides’ the idea of the •shape may be very obscure in his mind though the idea of the •number is very distinct in it.

Theo: That isn’t an apt example. A regular thousand-sided polygon is known just as distinctly as is the number one thousand, because in it one can discover and demonstrate all sorts of truths.

Phil: But one has no *precise* idea of a thousand-sided figure—no idea that would enable one to distinguish such a shape from one that has only nine hundred and ninety-nine sides.

Theo: That example shows that the •idea is being confused—by you and by Locke—with the •image. If I am confronted with a regular •thousand-sided• polygon, my eyesight and my imagination can’t give me a grasp of the thousand that it involves: I have only a confused idea both of the figure and of its number until I distinguish the number by counting. But once I have found the number, I know the given polygon’s nature and properties very well, in so far as they are those of a chiliagon [= ‘thousand-sided figure’, pronounced *kill-e-a-gon*]. The upshot is that I have this •idea of a chiliagon, even though I can’t have the •image of one: one’s senses and imagination would have to be sharper and more practised if they were to enable one to distinguish such a figure from a polygon that had one side less. But knowledge of shapes doesn’t *depend* on the imagination, any more than knowledge of numbers does, though imagination may be *a help*; and a mathematician may have precise knowledge of the nature of nine- and ten-sided shapes, because he has means for constructing and studying them, yet not be able to tell one from the other on sight. The fact is that a labourer or a builder, perhaps knowing little enough of the •geometrical• nature of the shapes, may have an advantage over a great geometrician in being able to tell them apart just by looking and without counting; just as there are porters and pedlars who will tell you to within a pound what their loads weigh—the worlds ablest expert in statics couldn’t do as well! It is true that this empiric’s kind of knowledge, gained through long practice, can greatly help swift action such as the engineer often needs in emergencies where any delay would put him

in danger. Still, this •clear image that one may have of a regular ten-sided shape or of a 99-pound weight—this accurate sense that one may have of them—consists merely in a •confused idea: it doesn't serve to reveal the nature and properties of the shape or the weight; that requires a •distinct idea. The point of this example is to bring out the difference between. . . ideas and images.

Phil: 15 We are apt to think that we have a positive comprehensive idea of •*eternity*, which amounts to thinking that there is no part of •that duration that isn't clearly known in our idea. But however great a duration someone represents to himself, since what is in question is a *boundless* extent there must always remain a part of his idea that is still beyond what he represents to himself and is very obscure and undetermined. That's how it comes about that in disputes and reasonings concerning eternity (or any other infinite) we are very apt to tangle ourselves in obvious absurdities.

Theo: This example doesn't appear to me to suit your purpose either, but it is just the thing for *my* purpose, which is to cure you of your notions about this topic! What you are caught up in here is that same confusion of the •image with the •idea. We have a comprehensive—i.e. accurate—idea of eternity, since we have the definition of it, although we have no image of it at all. Ideas of infinities aren't made by putting parts together, and the mistakes people make when

reasoning about the infinite don't arise from their having no image of it.

Phil: 16 But isn't it true that when we talk of matter as being infinitely divisible, though we have clear ideas of division, we have only very obscure and confused ideas of corpuscles? Take the smallest atom of dust you ever saw, and then consider: Do you have any distinct idea between the 100,000th and the 1,000,000th part of it?

Theo: This is that same mistake of taking the image for the idea; I'm amazed to see them so confused with one another. Having an *image* of something so small is utterly beside the point. Such an image is impossible, given how our bodies are now constituted. If we *could* have it, it would be pretty much like the images of things that now appear to us as within range of our awareness; but we would have to pay a price for having such an image because things of which we can now form images would be lost to us, becoming too large to be imagined. There are no images of *size* in itself, and the images of it that we do have depend on comparing things with our organs and with other objects. It is useless to bring the imagination into this. So what emerges from your latest remarks is that you are expending your ingenuity on creating needless difficulties for yourself by asking for too much.

Chapter xxx: Real and chimerical ideas

Philaethes: 1 The way an idea relates to things makes it real or chimerical, complete or incomplete, true or false.

·I shall give these dichotomies a chapter each·. By ‘real ideas’ I mean ones that have a basis in nature and have a conformity with a real being, with the existence of things, or with archetypes [= ‘things of which they are copies’]. Ideas that aren’t real are fantastical or chimerical.

Theophilus: There is a slight unclarity in that explanation: an idea can have a basis in nature without •conforming to that basis, as when it is said that our sensations of colour and warmth don’t •resemble any pattern or archetype. And another point: An idea should be classified as real if it is *possible*, even when nothing *actual* corresponds to it. Otherwise the idea of a species would become ‘chimerical’ if all the members of the species went out of existence.

Phil: 2 Simple ideas are all real, for though whiteness and coldness are no more in snow than pain is—according to some people—yet the ideas of them are the effects in us of powers in things external to us; and these constant effects serve us just as well in distinguishing things as they would if they were exact resemblances of something in the things themselves.

Theo: This is the first of the two points I have just been making; and now it appears that you *don’t* insist that a real idea must conform with an archetype. According to the opinion (which I don’t approve, though) of those who think that God arbitrarily settled what ideas we are to have to indicate the qualities of objects, with no resemblance and

not even a natural relationship ·between idea and thing·, our •ideas would not ‘conform’ to the things they are ideas *of* any more than our conventionally meaningful •words ‘conform’ to ideas or to things themselves.

Phil: 3 The mind is •passive in respect of its simple ideas; but when it forms a composite idea by bringing several simple ideas together under one name, there is a •voluntary element. For one man will include in the complex idea of *gold* or of *justice* simple ideas that another man leaves out of it.

Theo: The mind also deals actively with simple ideas when it teases them apart—i.e. analyses a complex idea into its simple constituents—so as to scrutinize the parts separately. This is just as voluntary as is the combining of several ideas to form a complex one. . . . The mind can’t go wrong in making such combinations and giving them names, provided that •it doesn’t join incompatible ideas, and provided that •the name in question is still virgin, so to speak, i.e. hasn’t already been associated with some notion. . . .

Phil: 4 Because mixed modes and relations have no reality except what they have in the minds of men, all that is needed for them to be real is the *possibility* of existing or of being mutually compatible.

Theo: The reality of relations does indeed depend on *mind*, as does the reality of truths; but what they depend is not the *human* mind but the supreme intellect ·of God· that determines all of them from all time. As for mixed modes: . . . whether or not they depend on mind, the ideas of them are real just so long as the modes are •possible, i.e. •distinctly conceivable. And that requires that the

constituent ideas be •compossible, i.e. able to be in mutual agreement.

Phil: 5 But composite ideas of substances are all made in reference to things existing outside us, and are intended to represent substances *as they really are*; so such ideas are •real only to the extent that they are combinations of simple ideas that really do occur together in things that exist outside us. And on the other hand, •chimerical composite ideas of substances are ones made up of collections of simple ideas that never were found together in any substance—such as the ideas that constitute

a centaur,

a body that resembles gold except that it weighs less than water, or

a body that appears to the senses to be homogeneous all through but is capable of perception and voluntary motion,

and so on.

Theo: You give one account of the real/chimerical distinction for ideas of modes, and a different one for ideas of substantial

things: you have two distinctions with nothing in common between them that I can see. You regard modes as real when they •are possible, but you don't allow the reality of ideas of substantial things unless the things •are existent. But if we try to bring in questions of existence, we'll •sometimes• hardly be able to discover whether a given idea is chimerical or not; for if something is possible but happens not to occur in the place or the time where we are, it may •have existed previously or •be going to exist in the future, or it may •exist now in some other part of the universe, or even *here* without our knowing about it. . . . So it seems best to say that possible ideas become 'merely chimerical' when the idea of actual existence is *groundlessly* attached to them—as •is done by those who think they can find the Philosopher's Stone, and •would be done by anyone who thought that there was once a race of centaurs. If instead we take what exists as our only guide, we'll be needlessly diverging from accepted ways of speaking; for these don't allow one to say that someone who speaks of roses or carnations in winter-time is speaking about a chimera unless he thinks that he can find such flowers in his garden!. . .

Chapter xxxi: Complete and incomplete ideas

Philaethes: 1 Real ideas are *complete* when they perfectly [= 'completely', 'fully'] represent the archetypes that the mind supposes them to be copying—the things that they represent, and to which the mind relates them. Incomplete ideas represent their archetypes only partially. **2** All our simple ideas are complete. The idea of whiteness or sweetness that

is observed in sugar is complete because all that is needed for completeness is that the idea should correspond fully to the powers that God has put into that body to produce those sensations.

Theophilus: I see that you call ideas 'complete' and 'incom-

plete' where Locke calls them 'adequate' and 'inadequate'. One might also call them 'perfect' and 'imperfect'. I once defined 'adequate idea' (or 'perfect idea') as *an idea that is so distinct that all its components are distinct*; the idea of a number is pretty much like that. So even an idea that is distinct, and thus does contain the definition or criteria of the object, can still be inadequate or imperfect—namely if these criteria or components aren't all distinctly known as well. For example,

•gold is a metal that resists cupellation and is insoluble in nitric acid;

that is a distinct idea, for it gives the criteria or the definition of *gold*. [Cupellation is a procedure for removing impurities from gold; the gold 'resists' the process, i.e. isn't removed by it.] But it isn't a perfect idea because we know too little about •the nature of cupellation and about •how aquafortis operates. The result of having only an imperfect idea of something is that a single thing can have several mutually independent definitions: sometimes we'll be unable to derive one from another, or see in advance that they must belong to a single thing, and then mere experience teaches us that they do belong to it together. Thus *gold* can be further defined as *the heaviest body we have*, or *the most malleable body we have*, and other definitions could also be constructed; but until men have penetrated more deeply into the nature of things they won't be able to see why the capacity to be separated out by the above two assaying procedures—cupellation and testing with aquafortis—is something that belongs to the heaviest metal. Whereas in geometry, where we *do* have perfect ideas, things run quite differently. We can *prove* that closed plane sections of cones and of cylinders are the same, namely ellipses; and we can't help knowing this if we give our minds to it, because our notions pertaining to it are perfect ones. I regard the perfect/imperfect division as merely a

subdivision within distinct ideas; and it seems to me that confused ideas such as our idea of sweetness (which you spoke of) don't deserve the label 'complete'. For although they express the power that produces the sensation, they don't *fully* express it; or at any rate we can't know that they do. If we understood the content of our idea of sweetness, *then* we could then judge whether the idea suffices to explain everything that experience shows us about sweetness. But we could understand that content only through the idea's moving from 'confused' to 'distinct'.

Phil: So much for simple ideas; now let us turn to complex ones. They are ideas either of •modes or of •substances. **3** Complex ideas of modes are collections of simple ideas that the mind *chooses* to put together, without reference to any real archetypes or standing patterns existing anywhere; so they are—they *have to be*—complete ideas. Here is why:

They aren't •copies that could be compared with their archetypes; rather, they are themselves •archetypes that the mind has made as a basis for classifying and naming things; so they can't *lack* anything, because each of them has the combination of ideas that the mind wished to make, and that gives it the perfection that the mind intended it to have.

We can't attach sense to the suggestion that the understanding might have a *more complete or perfect* idea of *triangle* than that of *three sides and three angles*. Whoever put together the ideas of

danger,

not being ruffled by fear,

calm thought about what it would be best to do, and then *doing* it without being deterred by the danger,

thereby formed the idea of *courage*. And he achieved what he wanted to, namely a complete idea conforming to *his*

choice of meaning for ‘courage’. It is otherwise with ideas of substances, in which we aim to copy what really exists.

Theo: The ideas of *triangle* and of *courage* have their archetypes in the possibility of things, just as much as does the idea of *gold*. It makes no difference to the nature of an idea whether it was invented in advance of experience or rather was something that stuck in someone’s mind after he had perceived a combination that nature had made. The combining of ideas to form modes isn’t entirely voluntary—

isn’t a mere matter of choose-as-you-like—for one might go wrong in this by bringing together incompatible elements, as do the people who design supposed perpetual motion machines! [He develops a little the point that ‘one can fabricate impossible modes’, giving an example from geometry. Then:] So whether it be of a mode or of something substantial, an idea can be complete or incomplete, depending on whether one has a good or a poor grasp of the partial ideas that go to make up the whole idea. One mark of a perfect idea is that it shows conclusively that the object is possible.

Chapter xxxii: True and false ideas

Philaethes: 1 Since truth and falsehood belong only to propositions, it follows that when ideas are called ‘true’ or ‘false’ some tacit proposition or affirmation is involved. 4 Specifically, there is a tacit supposition that the idea in question conforms to something. 5 Above all, that it conforms to what others designate by the same name (as when they speak of ‘justice’); also to what really exists (as the idea of man does, and the idea of centaur doesn’t); and also to the designated thing’s *essence*, on which its properties depend. And by this last standard, all our ordinary ideas of substances are false. . . .

Theophilus: I think that one could understand ‘true’ and ‘false’, as applied to ideas, in that way; but as these different senses—involving ‘conformity’ to three quite different things—aren’t in harmony with one another and can’t conveniently be brought under a common notion, I would prefer to call ideas ‘true’ or ‘false’ by reference to a different tacit affirmation that they all include, namely the affirmation of a *possibility*. Thus, calling an idea ‘possible’ (‘impossible’) if there could (could not) be something that it was the idea of, I propose that we call possible ideas ‘true’ and impossible ones ‘false’.

Chapter xxxiii: The association of ideas

Philaethes: **1** One often notices oddities in the thinking of others, and no-one is free from them. **2** This doesn't come wholly from obstinacy or self-love, for even fair-minded men are frequently guilty of this fault. **3** It is sometimes not even sufficient to attribute it to education and prejudice. It is rather a sort of madness, **4** and anyone who always behaved in that manner *would* be mad. **5** This defect comes from a non-natural connection of ideas that originates in chance or custom. **6** Inclinations and interests are involved. The tracks followed by repeated movements of the animal spirits are worn into a smooth path. [The 'animal spirits' were believed to be a superfine gas or fluid that could move around the body at an enormous speed.] If a tune is familiar, one retrieves it as soon as one is given a start. **7** This is the source of our likings and dislikings other than the ones we are born with. A child is made sick by eating too much honey; then when he grows up it makes him sick just to hear the word 'honey'. **8** It is especially easy for children to be influenced in his way, and one ought to guard against it. **9** This unruly **association of ideas** has great influence in all our actions and passions. . . . **10** Darkness recalls the idea of ghosts to children, because of the stories they have been told about them. **11** One doesn't think of somebody one hates without thinking of the harm that he did or might inflict on one. **12** One avoids a room where one has seen a friend die. **13** It sometimes happens that a mother who has lost a much-loved child thereby loses all her joy, until time erases from her mind the imprint of that idea—which in some cases doesn't happen. **14** A man perfectly cured of madness by an extremely painful operation acknowledged all through his life how much he owed to the man who had performed the

operation, and yet he couldn't stand the sight of him. . . . **17** This same non-natural connection occurs in our intellectual habits: *being* is linked in some people's minds with *matter*, as though there were nothing immaterial. . . .

Theophilus: I'm wholly in sympathy with this important observation, which could be confirmed by endless examples. [He gives some.] It's one of the commonest examples of a non-natural association that can generate error—this associating of words with things despite the presence of an ambiguity. For a better understanding of the source of the non-natural connecting of ideas, you should note what I said earlier (xi.11 [page 50]) when discussing the reasoning of beasts, namely that men as well as beasts are apt to join in their memory and imagination anything that they have found to be joined in their perceptions and their experiences. That's all there is to the reasoning of •beasts, if I may call it 'reasoning'; and there is often nothing more to it with •men, namely when they are mere empirics who govern themselves only by their senses and by particular instances without inquiring into whether the same principles are still at work. An 'empiric' notices and relies on regularities in how things go, but isn't curious about what explains them. We often don't know what principles are involved; and when that is so we must take seriously the association of one kind of event with another if there have been many instances of it, for in that case it is reasonable to expect or recall one perception on the occurrence of another that is ordinarily linked with it, especially when it is a matter of taking precautions. But a single very strong impression may, by its very intensity, instantly have as much effect as could be had by a repetition of mild impressions over a long period of time; and so this

intensity may etch into the imagination as deep and vivid an image as prolonged experience produces. That is how it comes about that one casual but violent impression brings together in our imagination and memory a pair of ideas that were both there already, binding them every bit as strongly and durably, and making us just as inclined to link them and to expect one to follow the other, as if the connection between them had been verified for us by long familiarity. In such a case there is the same effect—an association of

ideas—though not for the same reason. Authority, sectarian allegiance, and custom also produce the same effect as do experience and reason, and it isn't easy to free oneself from these inclinations. But it wouldn't be very difficult to protect oneself from false judgments in these matters, if men devoted themselves sufficiently seriously to the pursuit of truth, and proceeded methodically in cases where they recognized that it is important to them that the truth be found.