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An Essay Concerning Human Understanding

By John Locke

Book I—Innate Notions

i: Introduction

ii. No innate ·speculative· principles in the mind

Chapter i: Introduction

1. Since it is *the understanding* that sets man above all other animals and enables him to use and dominate them, it is certainly worth our while to enquire into it. The understanding is like the eye in this respect: it makes us see and perceive all other things but doesn't look in on itself. To stand back from it and treat it as an object of study requires skill and hard work. Still, whatever difficulties there may be in doing this, whatever it is that keeps *us* so much in the dark to *ourselves*, it will be worthwhile to let as much light as possible in upon our minds, and to learn as much as we can about our own understandings. As well as being enjoyable, this will help us to think well about other topics.

2. My purpose, therefore, is to enquire into •the origin, certainty, and extent of human knowledge, and also into •the grounds and degrees of belief, opinion, and assent. I shan't involve myself with the biological aspects of the mind. For example, I shan't wrestle with the question of what alterations of our bodies lead to our having sensation through our sense-organs or to our having any ideas in our understandings. Challenging and entertaining as these questions may be, I shall by-pass them because they aren't relevant to my project. All we need for my purposes is to consider the human ability to *think*. My time will be well spent if by this plain, factual method I can explain how our understandings come to have those notions of things that we have, and can establish ways of measuring how certainly we can know things, and of evaluating the grounds we have for our opinions. Although our opinions are various, different, and often wholly contradictory, we express them with great assurance and confidence. Someone observing human opinions from the outside—seeing how they conflict with one another, and yet how fondly they are embraced and how stubbornly they are maintained—might have reason to suspect that either there isn't any such thing as truth or that mankind isn't equipped to come to know it.

3. So it will be worth our while to find where the line falls between *opinion* and *knowledge*, and to learn more about the ‘opinion’ side of the line. What I want to know is this: When we are concerned with something about which we have no certain knowledge, what rules or standards should guide *how* confident we allow ourselves to be that our opinions are right? Here is the method I shall follow in trying to answer that question.

First, I shall enquire into the origin of those *ideas* or *notions*—call them what you will—that a man observes and is conscious of having in his mind. How does the understanding come to be equipped with them?

Secondly, I shall try to show what *knowledge* the understanding has by means of those ideas—how much of it there is, how secure it is, and how self-evident it is.

I shall also enquire a little into the nature and grounds of *faith or opinion*—that is, acceptance of something as true when we don’t know for certain that it is true.

4. I hope that this enquiry into the nature of the understanding will enable me to discover what its powers are—how far they reach, what things they are adequate to deal with, and where they fail us. If I succeed, that may have the effect of persuading the busy mind of man •to be more cautious in meddling with things that are beyond its powers to understand; •to stop when it is at the extreme end of its tether; and •to be peacefully reconciled to ignorance of things that turn out to be beyond the reach of our capacities. Perhaps then we shall stop pretending that we know everything, and shall be less bold in raising questions and getting into confusing disputes with others about things to which our understandings are not suited—things of which we can’t form any clear or distinct perceptions in our minds, or, as happens all too often, things of which we have no notions at all. If we can find out what the scope of the understanding is, how far it is able to achieve *certainty*, and in what cases it can only *judge* and *guess*, that may teach us to accept our limitations and to rest content with knowing only what our human condition enables us to know.

5. For, though the reach of our understandings falls far short of the vast extent of things, we shall still have reason to praise God for the kind and amount of knowledge that he *has* bestowed on us, so far above all the rest of creation. Men have reason to be well satisfied with what God has seen fit to give them, since he has given them everything they need for the •conveniences of life and the •forming of virtuous characters—that is, everything they need to discover how to •thrive in this life and how to •find their way to a better one. . . . Men can find plenty of material for thought, and for a great variety of pleasurable physical activities, if they don’t presumptuously complain about their own constitution and throw away the blessings their hands are filled with because their hands are not big enough to grasp everything. We shan’t have much reason to complain of the narrowness of our minds if we will only employ them on topics that may be of use to us; for on *those* they are very capable. . . .

6. When we know what our ·muscular· strength is, we shall have a better idea of what ·physical tasks· we can attempt with hopes of success. And when we have thoroughly surveyed the powers of our own minds, and made some estimate of what we can expect from them, we shan’t be inclined either •to sit still, and not set our thoughts to work at all,

in despair of knowing anything or •to question everything, and make no claim to *any* knowledge because *some* things can't be understood. It is very useful for the sailor to know how long his line is, even though it is too short to fathom all the depths of the ocean. It is good for him to know that it is long enough to reach the bottom at places where he needs to know where it is, and to caution him against running aground. . . .

7. This was what first started me on this *Essay Concerning the Understanding*. I thought that the first step towards answering various questions that people are apt to raise about other things was to take a look at our own understandings, examine our own powers, and see to what they are fitted for. Till that was done (I suspected) we were starting at the wrong end—letting our thoughts range over the vast ocean of being, as though there were no limits to what we could understand, thereby spoiling our chances of getting a quiet and sure possession of truths that most concern us. . . . If men consider the capacities of our understandings, discover how far our knowledge extends, and find the horizon that marks off •the illuminated parts of things from •the dark ones, •the things we can understand from •the things we can't, then perhaps they would be less hesitant to accept their admitted ignorance of •the former, and devote their thought and talk more profitably and satisfyingly on •the latter.

8. Before moving on, I must here at the outset ask you to excuse how frequently you will find me using the word 'idea' in this book. It seems to be the best word to stand for *whatever is the object of the understanding when a man thinks*; I have used it to express whatever is meant by 'phantasm', 'notion', 'species', or whatever it is that the mind can be employed about in thinking; and I couldn't avoid frequently using it.

Nobody, I presume, will deny that there are such ideas in men's minds; everyone is conscious of them in himself, and men's words and actions will satisfy him that they are in others.

Our first enquiry then will be, how they come into the mind.

Chapter ii: No innate •speculative• principles in the mind

1. Some people regard it as settled that there are in the understanding certain innate principles. These are conceived as primary notions [= 'first thoughts']—letters printed on the mind of man, so to speak—which the soul [= 'mind'; no religious implications] receives when it first comes into existence, and that it brings into the world with it. I could show any fair-minded reader that this is wrong if I could show (as I hope to do in the present work) how men can get all the knowledge they have, and can arrive at certainty about some things, purely by using their natural faculties [= 'capacities', 'abilities'], without help from any innate notions or principles. Everyone will agree, presumably, that it would be absurd to suppose that the *ideas* of colours are innate in a creature to whom God has given eyesight, which is a power to get those ideas through the eyes from external objects. It would be equally unreasonable to explain our knowledge of various *truths* in terms of innate 'imprinting' if it could just as easily be explained through our ordinary abilities to come to know things.

Anyone who follows his own thoughts in the search of truth, and is led even slightly off the path of common beliefs, is likely to be criticized for this; and I expect to be criticized for saying that none of our intellectual possessions are innate. So I shall present the reasons that made me doubt the truth of the innateness doctrine. That will be my excuse for my mistake, if that's what it is. Whether it is a mistake can be decided by those who are willing, as I am, to welcome truth wherever they find it.

2. Nothing is more commonly taken for granted than that certain principles, both speculative [= 'having to do with what *is* the case'] and practical [= 'having to do with morality, or what *ought to be* the case'] are accepted by all mankind. Some people have argued that because these principles are (they think) universally accepted, they must have been stamped onto the souls of men from the outset.

3. This argument from universal consent has a defect in it. Even if it were in fact true that all mankind agreed in accepting certain truths, that wouldn't prove them to be innate if universal agreement could be explained in some other way; and I think it can.

4. Worse still, this *argument from universal consent* which is used to prove that there are innate principles can be turned into a proof that there are none; because there aren't any principles to which all mankind give universal assent. I shall begin with speculative principles, taking as my example those much vaunted logical principles •'Whatever is, is' and •'It is impossible for the same thing to be and not to be', which are the most widely thought to be innate. They are so firmly and generally believed to be accepted by everyone in the world that it may be thought strange that anyone should question this. Yet I am willing to say that these propositions, far from being accepted by everyone, have never even been heard of by a great part of mankind.

5. Children and idiots have no thought—not an inkling—of these principles, and that fact alone is enough to destroy the universal assent that there would have to be for any truth that was genuinely innate. For it seems to me nearly a contradiction to say that there are truths imprinted on the soul that it doesn't perceive or understand—because if 'imprinting' means anything it means making something be perceived: to imprint anything on the mind without the mind's perceiving it seems to me hardly intelligible. So if children and idiots have souls, minds, with those principles imprinted on them, they can't help perceiving them and assenting to them. Since they don't do that, it is evident that the principles are not innately impressed upon their minds. If they were naturally imprinted, and thus innate, how could they be unknown? To say that a notion is imprinted on the mind, *and* that the mind is ignorant of it and has never paid attention to it, is to make this impression nothing. No proposition can be said to be in the mind which it has never known or been conscious of.

It may be said that a proposition that the mind has never consciously known may be 'in the mind' in the sense that the mind is *capable* of knowing it; but in that sense *every true proposition that the mind is capable of ever assenting to may be said to be 'in the mind' and to be imprinted!* Indeed, there could be 'imprinted on' someone's mind, in *this* sense, truths that the person never did and never will know. For a man may be capable of knowing, and indeed of knowing with certainty, many things which he doesn't

in fact come to know at any time in his life. So that if the mere *ability* to know is the natural impression philosophers are arguing for, all the truths a man ever comes to know will have to count as innate; and this great doctrine about ‘innateness’ will come down to nothing more than a very improper way of speaking, and not something that disagrees with the views of those who deny innate principles. For nobody, I think, ever denied that the mind was capable of knowing many truths. Those who think that ‘all knowledge is acquired’ rather than innate also think that ‘the *capacity* for knowledge is innate.

If these words ‘to be in the understanding’ are used properly, they mean ‘to be understood’. Thus, to be in the understanding and not be understood—to be in the mind and never be perceived—amounts to saying that something *is* and *is not* in the mind or understanding. If therefore these two propositions, ‘Whatever is, is’ and ‘It is impossible for the same thing to be and not to be’ are imprinted by nature, children cannot be ignorant of them; infants and all who have souls must necessarily have them in their understandings, know the truth of them, and assent to that truth.

6. To avoid this conclusion, it is usually answered that *all men know and assent to these truths when they come to the use of reason*, and this is enough to prove the truths innate. I answer as follows.

7. People who are in the grip of a prejudice don’t bother to look carefully at what they say; and so they will say things that are suspect—indeed almost meaningless—and pass them off as clear reasons. The foregoing claim ‘that innateness is proved by assent-when-reason-is-reached’, if it is to be turned into something clear and applied to our present question, must mean either (1) that as soon as men come to the use of reason these supposedly innate truths come to be known and observed by them, or (2) that the use and exercise of men’s reason assists them in the discovery of these truths, making them known with certainty.

8. If they mean (2) that by the use of reason men may discover these principles, and that this is sufficient to prove them innate, they must be arguing for this conclusion:

Whatever truths reason can enable us to know for certain, and make us firmly assent to, are all ‘innate, that is’, naturally imprinted on the mind; on the grounds that universal assent proves innateness, and that all we mean by something’s being ‘universally assented to’ in this context is merely that we can come to know it for sure, and be brought to assent to it, by the use of reason. This line of thought wipes out the distinction between the *maxims* [= ‘basic axioms’] of the mathematicians and the *theorems* they deduce from them; all must equally count as innate because they can all be known for certain through the use of reason.

9. How can people who take this view think that we need to use *reason* to discover principles that are supposedly innate? . . . We may as well think that the use of reason is necessary to make our *eyes discover visible objects* as that we need to have (or to use) reason to make the *understanding see what is originally engraved on it* and cannot be in the understanding before being noticed by it. ‘Reason shows us those truths that have been imprinted’—this amounts to saying that the use of reason enables a man to learn what he already knew.

10. In reply to my final remark in section 8, it may be said that maxims and other innate truths *are*, whereas mathematical demonstrations and other non-innate truths *are not*, assented to as soon as the question is put. . . . I freely acknowledge that maxims differ from mathematical demonstrations in this way: we grasp and assent to the latter only with the help of reason, using proofs, whereas the former—the basic maxims—are embraced and assented to as soon as they are understood, without the least reasoning. But so much the worse for the view that reason is needed for the discovery of these general truths [= maxims], since it must be admitted that reasoning plays no part in *their* discovery. And I think those who take this view that innate truths are known by reason will hesitate to assert that the knowledge of the maxim that *it is impossible for the same thing to be and not to be* is a deduction of our reason. For by making our knowledge of such a principle depend on the labour of our thoughts they would be destroying that bounty of nature they seem so fond of. In all reasoning we search and flail around, having to take pains and stick to the problem. What sense does it make to suppose that all *this* is needed to discover something that was imprinted on us by nature?

11. . . . It is therefore utterly false that reason assists us in the knowledge of these maxims; and as I have also been arguing, if it were true it would prove that they are *not* innate!

12. Of the two interpretations mentioned in section 7, I now come to the one labelled (1). If by 'knowing and assenting to them when we come to the use of reason' the innatists mean that this is *when* the mind comes to notice them, and that *as soon as* children acquire the use of reason they come also to know and assent to these maxims, this also is •false and •frivolous. •It is false because these maxims are obviously not in the mind as early as the use of reason. We observe ever so many instances of the use of reason in children long before they have any knowledge of the maxim that *it is impossible for the same thing to be and not to be*. Similarly with illiterate people and savages. . . .

13. All that is left for these innatists to claim is this: Maxims or innate truths are never known or noticed before the use of reason, and *may* be assented to at some time after that, but there is no saying *when*. But that is true of all other knowable truths; so it doesn't help to mark off innately known truths from others.

14. Anyway, even if it were true that certain truths came to be known and assented to at *precisely* the time when men acquire the use of reason, that wouldn't prove them to be innate. To argue that it would do so is as •frivolous as the premise of the argument is •false. [Locke develops that point at some length. How, he demands, can x's innateness be derived from the premise that a person first knows x when he comes to be able to reason? Why not derive something's innateness from its being first known only when a person comes to be able to *speak*? (Or, he might have added even more mockingly, when a person first becomes able to *walk*? or to *sing*?) He allows *some* truth to the thesis that basic general maxims are not known to someone who doesn't yet have the use of reason, but he explains this in terms not of innateness but rather of a theory of his own that he

will develop later in the work. It rests on the assumption—which Locke doesn't declare here—that to *think* a general maxim one must have general *ideas*, and that to *express* a general maxim one must be able to use general *words*.] The growth of reason in a person goes along with his becoming able to form *general abstract ideas*, and to understand *general names* [= 'words']; so children usually don't have such general ideas or learn the 'general' names that stand for them until after they have for a good while employed their reason on familiar and less general ideas; and it is during that period that their talk and behaviour shows them to be capable of rational conversation.

[Sections 15 and 16 continue with this theme. A typical passage is this, from section 16:] The later it is before anyone comes to have those general ideas that are involved in 'supposedly innate' maxims, or to know the meanings of the general words that stand for them, or to put together in his mind the ideas they stand for; the later also it will be before he comes to assent to the maxims. . . . Those words and ideas are no more innate than is the idea of *cat* or of *weasel*. So the child must wait until time and observation have acquainted him with them; and *then* he will be in a fit state to know the truth of these maxims.

17. . . . Some people have tried to secure universal assent to the propositions they call *maxims* by saying they are generally assented to as soon as *they are proposed, and the terms they are proposed in are understood*. . . .

18. In answer to this, I ask whether prompt assent given to a proposition upon first hearing it and understanding the terms really is a certain mark of an innate principle? If so, then we must classify as innate *all* such propositions, in which case the innatists will find themselves plentifully stored with innate principles—including various propositions about numbers that everybody assents to at first hearing and understanding the terms. And not just numbers; for even the natural sciences contain propositions that are sure to meet with assent as soon as they are understood: *Two bodies cannot be in the same place at the same time* is a truth that a person would no more hesitate to accept than he would to accept *It is impossible for the same thing to be and not to be*, •*White is not black*, or •*A square is not a circle*. If assent at first hearing and understanding the terms were a mark of innateness, we would have to accept as innate every •proposition in which different ideas are denied one of another. We would have legions of innate propositions of this one sort, not to mention all the others. . . . Now, I agree that a proposition is shown to be *self-evident* by its being promptly assented to by everyone who hears it and understands its terms; but self-evidence comes not from innateness but from a different source which I shall present in due course. There are plenty of self-evident propositions that nobody would be so fanciful as to claim to be innate.

19. Don't say that the less general self-evident propositions—*One and two are equal to three*, *Green is not red*, and so on—are accepted as the consequences of more general ones that are taken to be innate. Anyone who attends with care to what happens in the understanding will certainly find that the less general propositions are known for sure, and firmly assented to, by people who are utterly ignorant of those more general maxims; so the former can't be accepted on the strength of the latter.

[In section **20** Locke considers the claim that the less general self evident truths are not ‘of any great use’, unlike the more general maxims that are called innate. He replies that no reason has been given for connecting usefulness to innateness, and that in any case he is going to question whether the more general maxims *are* of any great use.]

21. Here is another objection to inferring a proposition’s innateness from its being assented to by anyone who hears it and understands its terms. Rather than this being a sign that the proposition *is* innate, it is really a proof that it *isn’t*. It is being assumed that people who understand and know other things are ignorant of these self-evident and supposedly innate principles till they are proposed to them. But if they were innate, why would they need to be *proposed* in order to be assented to? Wouldn’t their being in the understanding through a natural and original impression lead to their being known even *before* being proposed? Or does proposing them print them *more clearly* in the mind than nature did? If so, then a man knows such a proposition better after he has been thus taught it—that is, had it clarifyingly ‘proposed’ to him—than he did before. This implies that these principles may be made more evident to us by others’ teaching than nature has made them by impression; which deprives supposedly innate principles of their authority, and makes them unfit to be the foundations of all our other knowledge, as they are claimed to be. . . .

[Section **22** briefly and unsympathetically discusses the suggestion that even before a man first has an innate maxim ‘proposed’ to him, he has an *implicit* knowledge of it.]

[In section **23** Locke argues that the position he is now opposing—that a proposition counts as innate if it is assented to when first proposed and understood—looks plausible only because it is assumed that when the proposition is proposed and made to be understood *nothing new* is learned; that assumption might lead Locke’s opponents to say that he was wrong in section 21 to say that such propositions are *taught*. Against this he says:] In truth they *are* taught, and in such teaching the pupils do learn something they were ignorant of before. They have learned the terms and their meanings, neither of which was born with them; and they have acquired the relevant ideas, which were not born with them any more than their names were. [Locke then presents at some length his own view about what really happens when someone assents to a self-evident proposition; all this will be developed further in Book II.]

24. To conclude this argument about universal consent, I agree with these defenders of innate principles that *if they are innate they must have universal assent*. (I can no more make sense of a truth’s being innate and yet not assented to than I can of a man’s knowing a truth while being ignorant of it.) But it follows that they can’t be innate, because they are not universally assented to, as I have shown. . . .

25. It may be objected that I have been arguing from the thoughts of infants, drawing conclusions from what happens in their understandings, whereas we really don’t know what their thoughts are. [Locke at some length just denies this, claiming that we do know a good deal about the thoughts of children. The section ends thus:] The child certainly

knows that the wormseed or mustard it refuses is not the apple or sugar it cries for: this it is certainly and undoubtedly assured of. But will anyone say that the child has this knowledge by virtue of the principle *It is impossible for the same thing to be and not to be*? Someone who says that children join in these general abstract speculations with their sucking bottles and their rattles can fairly be thought to have less sincerity and truth than an infant, even if he outdoes the child in his passion and zeal for his opinion!

[Section 26 winds up that whole line of argument.]

[Section 27 advances a new argument. The innatist must allow that the truths innately implanted in our minds don't always present themselves to our consciousness, and he is forced to explain that this happens because our innately given intellectual possessions may be smudged over, 'corrupted by custom or borrowed opinions, by learning and education'. But if that were right, those innate truths 'should appear fairest and clearest' in the minds of 'children, idiots, savages, and illiterate people'; yet in such people 'we find no footsteps of them'.] One would think, according to the innatists' principles, that all these native beams of light (if they existed) would shine out most brilliantly in people who are not skilled in concealing things, leaving us in no more doubt of *their* having them than we are of their loving pleasure and hating pain. But alas, amongst children, idiots, savages, and the grossly illiterate, what general maxims are to be found? What universal principles of knowledge? Their notions are few and narrow, borrowed only from those objects they have had most to do with, and which have most frequently and strongly impressed themselves upon their senses. . . .

28. I don't know how absurd my position on this may seem to logicians; and probably most people will find it, on a first hearing, hard to swallow. So I ask for a little truce with prejudice, and a holding off from of criticism, until I have been heard out in the later parts of this Book. I am very willing to submit to better judgments. Since I impartially search after truth, I shan't mind becoming convinced that I have been too fond of my own notions; which I admit we are all apt to be when application and study have excited our heads with them. . . .

An Essay Concerning Human Understanding

By John Locke

Book II -- Ideas

- i. Ideas in general, and their origin
- ii. Simple ideas
- viii: Some further considerations concerning our simple ideas
- xxiii: Our complex ideas of substances

Chapter i: Ideas in general, and their origin

1. Everyone is conscious to himself that he thinks; and when thinking is going on, the mind is engaged with *ideas* that it contains. So it is past doubt that men have in their minds various ideas, such as are those expressed by the words ‘whiteness’, ‘hardness’, ‘sweetness’, ‘thinking’, ‘motion’, ‘man’, ‘elephant’, ‘army’, ‘drunkenness’, and others. Our first question, then, is *How does he acquire these ideas?* It is widely believed that men have ideas stamped upon their minds in their very first being. My opposition to this in Book I will probably be received more favourably when I have shown where the understanding *can* get all its ideas from—an account that I contend will be supported by everyone’s own observation and experience.

2. Let us then suppose the mind to have no ideas in it, to be like *white paper* with nothing written on it. How then does it come to be written on? From where does it get that vast store which the busy and boundless imagination of man has painted on it—all the materials of reason and knowledge? To this I answer, in one word, from *experience*. Our understandings derive all the materials of thinking from *observations* that we make of •external objects that can be perceived through the senses, and of •the internal operations of our minds, which we perceive by looking in at ourselves. These two are the fountains of knowledge, from which arise all the ideas we have or can naturally have.

3. First, our senses when applied to particular perceptible objects convey into the mind many distinct perceptions of things, according to the different ways in which the objects affect them. That is how we come by those ideas we have of yellow, white, heat, cold, soft, hard, bitter, sweet, and all those that we call sensible qualities. When I say the senses convey these ideas into the mind, I don’t mean this strictly and literally, because I don’t mean to say that an idea actually *travels across* from the perceived object to the person’s mind. Rather I mean that through the senses external objects convey into the mind *something that produces there* those perceptions [= ‘ideas’]. This great source of most of the ideas we have I call SENSATION.

4. Secondly, the other fountain from which experience provides ideas to the understanding is the perception of the operations of our own mind within us. This yields ideas that couldn’t be had from external things—ones such as the ideas of perception, thinking, doubting, believing, reasoning, knowing, willing, and all the different things that our minds do. Being conscious of these actions of the mind and observing them in ourselves, our understandings get from them ideas that are as distinct as the ones we get from bodies affecting our senses. Every man has this source of ideas wholly within himself; and though it is not *sense*, because it has nothing to do with external objects, it is still very like sense, and might properly enough be called ‘internal sense’. But along with calling the other ‘sensation’, I call this REFLECTION, because the ideas it gives us can be had only by a mind reflecting on its own operations within itself. By ‘reflection’ then, in the rest of this work, I mean the notice that the mind takes of *what* it is doing, and *how*. (I am here using ‘operations’ in a broad sense, to cover not only the *actions* of the mind on its ideas but also *passive states* that can arise from them, such as is the satisfaction or uneasiness arising from any thought.) So that is my thesis: all our ideas take their

beginnings from those two sources—external material things as objects of sensation, and the operations of our own minds as objects of reflection.

5. . . . When we have taken a full survey of •the ideas we get from these sources, and of their various modes, combinations, and relations, we shall find they are •our whole stock of ideas; and that we have nothing in our minds that didn't come in one of these two ways. [Locke then challenges the reader to 'search into his understanding' and see whether he has any ideas other than those of sensation and reflection.]

6. If you look carefully at the state of a new-born child, you will find little reason to think that he is well stocked with ideas that are to be the matter of his future knowledge. He gets ideas gradually; and though the ideas of obvious and familiar qualities imprint themselves before the memory begins to keep a record of when or how, ideas of unusual qualities are different. Some of *them* come so late that most people can remember when they first had them. And if we had reason to, we *could* arrange for child to be brought up in such a way as to have very few ideas, even ordinary ones, until he had grown to manhood. In actuality children are born into the world surrounded by bodies that perpetually affect them so as to imprint on their minds a variety of ideas: light and colours are busy everywhere, as long as the eyes are open; sounds and some tangible qualities engage the senses appropriate to them, and force an entrance into the mind. But I think it will be readily admitted that if a child were kept in a place where he never saw any other but black and white till he was a man, he would have no ideas of scarlet or green—any more than a person has an idea of the taste of oysters or of pineapples if he has never actually tasted either.

7. How many simple ideas a person has depends •for ideas of sensation• on what variety there is among the external objects that he perceives, and •for ideas of reflection• on how much he reflects on the workings of his own mind. •The focussed intensity of the reflection is relevant, because• : although someone who contemplates the operations of his mind can't help having plain and clear ideas of them, he won't have clear and distinct ideas of all the operations of his mind and everything that happens in them *unless he turns his thoughts that way and considers them attentively*; any more than he can have ideas of all the details of a landscape painting, or of the parts and motions of a clock, if he doesn't look at it and focus his attention on all the parts of it. The picture or clock may be so placed that he encounters them every day, but he will have only a confused idea of all the parts they are made up of, until he applies himself with attention to consider each part separately.

8. That is why it is quite late before most children get ideas of the operations of their own minds, and why some people *never* acquire any very clear or perfect ideas of most of their mental operations. Their mental operations are there all the time, like floating visions; but until the understanding turns inward upon itself, reflects on them, and makes them the objects of its own thoughts, they won't make deep enough impressions to leave in the person's mind clear, distinct, lasting ideas. Children enter the world surrounded by new things that constantly attract their senses, drawing towards themselves a mind that is eager to notice new things and apt to be delighted with the variety of changing objects.

So the first years are usually spent in looking outwards ·at the surroundings·; and so people grow up constantly attending to outward sensation, reflecting very little on what happens within them till they come to be of riper years—and some not even then.

9. When does a man first have any ideas? That is the same as asking: when does a man begin to perceive? For having ideas and perception are the same thing. I know that some philosophers hold that the soul [= ‘mind’; no religious implications] *always* thinks, and that it has the actual perception of ideas in itself constantly as long as it exists. For them, •actual thinking is as inseparable from •the soul as •actual extension is from •the body, which implies that the question about the beginning of a man’s ideas is the question about the beginning of his soul. For on their view the soul and its ideas must begin to exist both at the same time. as do body and its extension [= ‘its taking up space’].

10. How does •the soul’s beginning to exist relate to •the first rudiments of organization—or to the beginnings of life—in the body? Before it, or at the same time, or later? I leave that question to be disputed by those who have thought harder about it than I have. ·But I *do* have a view about how •the soul’s beginning to exist relates to •its first having ideas, or at least to the view that the two must occur together because a soul can’t exist except when it has ideas·. I confess that I have one of those dull souls that doesn’t perceive itself always to contemplate ideas; and I don’t think it is any more necessary for the soul always to think than for the body always to move. In my view, *the perception of ideas* is to *the soul* as *motion* is to *the body*—not something that •is essential to it, but something that •it sometimes does. So even if thinking is an activity that is uniquely appropriate to the soul, that doesn’t require us to suppose that the soul is always thinking, always in action. Perhaps that is a gift possessed by God, ‘who never slumbers nor sleeps’ [Psalm 121:3], but it is not appropriate for any finite being, or at least not to the soul of man. We know by experience that we sometimes think; and from this we validly infer that there is in us something—some substance—that is able to think; but whether that substance perpetually thinks or not is a question we must answer on the basis of what experience informs us. To say that ·experience is irrelevant because· actual thinking is *essential* to the soul and ·thus conceptually· inseparable from it, is to assume the very thing that is in question. Such a claim needs to be supported by arguments, unless the claim is a self-evident proposition—and I do not think anyone will contend that *The soul always thinks* is self-evident. [The section continues with mockery of people who purport to prove something by assuming it among the premises of their argument; and with a reply to a critic who, misunderstanding something in the first edition of the *Essay*, had accused Locke of thinking that when you are asleep your soul doesn’t exist.]

11. I grant that the soul in a waking man is never without thought, because that is what it *is* to be awake. But I suspect that in sleeping without dreaming, the whole man is asleep—his mind as well as his body—so that in that state no thought is occurring. If the soul thinks in a sleeping man without being conscious of it, I ask whether during such thinking •the soul has any pleasure or pain, or any ability to be happy or miserable? I am sure •the man does not, any more than •the bed he lies on has pleasure or pain. For to be happy or miserable without being conscious of it seems to me utterly inconsistent and impossible. If you say that •the soul might be in any of those states while the body is

sleeping, and •the unsleeping man have no consciousness of them, I reply: In that case Socrates asleep and Socrates awake are not the same person, but two persons.

[Locke elaborates this a little, in the remainder of section 11 and on through section 12, relying on a view of his about personal identity that he will develop more clearly and at greater length in xxvii.]

13. Thus, I think, every drowsy nod shakes the doctrine of those who teach that the soul is always thinking! Anyway, those who do at some time sleep without dreaming can never be convinced that their thoughts are for four hours busy without their knowing of it; and if they are taken in the very act, waked in the middle of those sleeping thoughts, they can give no account of it.

14. It will perhaps be said that the soul thinks even in the soundest sleep but the memory doesn't retain those thoughts. This is utterly implausible: . . . Who can imagine that most men, for several hours every day of their lives, think of something of which they could remember nothing at all, even if they were asked in the middle of these thoughts? Most men, I think, pass a great part of their sleep without dreaming. I once knew a man that was bred a scholar, and had a pretty good memory, who told me that he had never dreamed in his life till he had a fever at the age of twenty-five. Everyone will have acquaintances who pass most of their nights without dreaming.

15. To think often, and never to retain it so much as one moment, is a very useless sort of thinking. The soul in such a state of thinking would be little better than a looking-glass which constantly receives a variety of images but retains none of them; they disappear and vanish without leaving a trace; the looking-glass is never the better for such images, nor the soul for such thoughts. We might also ask *why* it should be that all sleeping thoughts are forgotten, given that many waking ones are remembered. Here is a possible answer to that:

In a waking man the materials of the body are used in thinking, and the memory of thoughts is retained by the impressions that are made on the brain and the traces there left after such thinking; but in the thinking of the soul that is not perceived in a sleeping man, the soul thinks apart, making no use of the organs of the body and so leaving no impressions on the body and consequently no memory of such thoughts.

. . . . I answer that whatever ideas the mind can *receive and contemplate* without the help of the body it can also—it is reasonable to think—*retain* without the help of the body too. If not, then the soul gets little advantage by thinking. If •it has no memory of its own thoughts; if •it can't lay them up for its own use, and be able to recall them at need; if •it can't reflect on what is past, and make use of its former experiences, reasonings, and contemplations—then •what does it think *for*? Those who make the soul a thinking thing in *this* way don't make it much nobler than do those (whom they condemn) who claim it to be nothing but very finely ground matter. Words written on dust that the first breath of wind wipes out, or impressions made on a heap of atoms or bodily fluids, are every bit as useful and ennobling as the thoughts of a soul that perish in thinking—thoughts that once out of sight are gone for ever and leave no memory of themselves behind them. Nature

never makes excellent things for trivial uses or for no use; and it is hardly to be conceived that our infinitely wise creator should bring it about that something as admirable as the power of thinking—the power of ours—that comes nearest to the excellence of his own incomprehensible being—is so idly and uselessly employed, at least a quarter of the time, that it thinks constantly without remembering any of those thoughts, without doing any good to itself or others or being any way useful to any other part of the creation. If you think about it, I doubt if you will find that the motion of dull and senseless *matter* is ever, anywhere in the universe, made so little use of and so wholly thrown away.

[In section **16** Locke writes of thoughts that we do sometimes have in our sleep and remember after waking, pointing out that they are mostly ‘extravagant and incoherent’. He says that his present opponents, faced with this evidence, will have to say that the soul thinks better when employing the body than when thinking ‘apart’ from the body. He evidently thinks that this is an intolerable conclusion.]

[In sections **17-22** Locke continues to urge the empirical implausibility of the thesis that the soul always thinks, and the unreasonable dogmatism of those who insist on it as necessarily true whatever experience may say. Much of the content of these sections repeats things said earlier in the chapter. The discussion gradually moves over to Locke’s thesis that the soul thinks only when it has ideas to think with, and to his view about how ideas are acquired. And so the chapter circles back to where it was in section 9.]

23. When does a man begin to have any ideas? I think the true answer is: when he first has any sensation. Since there appear not to be any ideas in the mind before the senses have conveyed any in, I think that ideas in the understanding arise at the same time as sensation. Sensation is •an impression or motion made in some part of the body that produces •some perception in the understanding. It is about these impressions made on our senses by outward objects that the mind seems first to employ itself in such operations as we call perception, remembering, consideration, reasoning, etc.

24. In time the mind comes to reflect on *its own dealing with* the ideas acquired from *sensation*, and thereby stores up a new set of ideas that I call ideas of *reflection*. . . . The first capacity of human intellect is that the mind is fitted to receive the impressions made on it, either through the senses by outward objects, or by its own operations when it reflects on them. This is the first step a man makes towards the discovery of anything, and the basis on which to build all the notions he will ever have naturally in this world. All those sublime thoughts that tower above the clouds and reach as high as heaven itself take off from here. . . .

25. In the getting of ideas the understanding is merely passive. It has no control over whether it will have these beginnings—these materials, so to speak—of knowledge. For many of the objects of our senses shove their particular ideas into our minds, whether we want them or not; and the operations of our minds won’t let us be without at least *some* obscure notions of them. No man can be wholly ignorant of what he does when he thinks. The understanding can no more refuse to have these simple ideas when they are offered to it, or alter them once they have been imprinted, or blot them out and make new ones

itself, than a mirror can refuse, alter, or obliterate the images or ideas that the objects placed in front of it produce on its surface. . . .

Chapter ii: Simple ideas

1. To get a better grasp of what our knowledge is, how it comes about, and how far it reaches, we must carefully attend to one fact about our ideas, namely that some of them are *simple*, and some *complex*.

The *qualities* that affect our senses are intimately united and blended in the things themselves, but it is obvious that the *ideas* they produce in the mind enter (via the senses) simple and unmixed. A single sense will often take in different ideas from one object at one time—as when a man *sees* motion and colour together, or the hand *feels* softness and warmth in a single piece of wax—and yet the simple ideas that are thus brought together in a single mind are as perfectly distinct as those that come in by different senses. The •coldness and hardness a man feels in a piece of ice are as distinct ideas in the mind as the •smell and whiteness of a lily, or as the •taste of sugar and smell of a rose. And nothing can be plainer to a man than the clear and distinct perception he has of those simple ideas, each of which contains nothing but one uniform appearance or conception in the mind, and is not distinguishable into different ideas.

2. These simple ideas, which are the materials of all our knowledge, are suggested and supplied to the mind only by sensation and reflection. Once the understanding has been stocked with these simple ideas, it is able to repeat, compare, and unite them, to an almost infinite variety, and so can make new complex ideas as it will. But no-one, however quick and clever, can invent one new simple idea that was not taken in by one of those two ways. Nor can any force of the understanding destroy those that are there. Man's power over this little world of his own understanding is much like his power over the great world of visible things, where he can only compound and divide the materials that he finds available to him, and can do nothing towards the making the least particle of new matter, or destroying one atom of what already exists. . .

3. God could have made a creature with organs different from ours, and more ways than our five senses to give the understanding input from bodily things. But I don't think any of us could imagine any qualities through which bodies could come to our attention other than sounds, tastes, smells, and visible and tangible qualities. Had mankind been made with only four senses, the qualities that are now the objects of the fifth sense would have been as far from our notice, imagination, and conception as now any belonging to a sixth, seventh, or eighth sense can possibly be. (Actually, I think that perhaps we do have six senses; but I have been following the usual count, which is five; it makes no difference to my present line of thought.) Are there creatures in some other parts of this vast and stupendous universe who have more senses than we do? Perhaps. If you consider the immensity of this structure, and the great variety that is to be found in our little part of it, you may be inclined to think that there are somewhere different intelligent beings whose capacities are as unknown to you as are the senses or understanding of a man to a worm

shut up in one drawer of a desk. Such variety and excellence would be suitable to the wisdom and power of our maker.

Chapter viii: Some further considerations concerning our simple ideas

1. If something in nature can so affect the mind as to cause some perception in it, that perception will present itself to the mind as a *positive* idea, even if it is caused by a *negative* feature of the object.

2. Thus the ideas of heat and cold, light and darkness, white and black, motion and rest, are equally clear and positive ideas in the mind; though perhaps some of the causes producing them are mere privations [= ‘absences’, ‘negativenesses’] in the things from which our senses derive those ideas. Looking into those causes is an enquiry that belongs not •to the idea as it is in the understanding but •to the nature of the things existing outside us. These are two very different things, and we should be careful to distinguish them. It is one thing to perceive and know the idea of white or black, and quite another to examine what kind surface texture is needed to make an object appear white or black.

[In section 3 Locke develops this point a little further. In section 4 he offers a suggestion about *why* a negative cause sometimes ‘produces a positive idea’.]

5. I won’t try to settle here whether this suggestion is right. ·As for my point about the idea itself, as distinct from its cause·, I appeal to everyone’s own experience: the shadow of a man consists of nothing but the absence of light, but doesn’t it cause in an observer as clear and positive an idea as does the man whose shadow it is, even though he is bathed in sunshine? And the picture of a shadow is a positive thing. We do have negative names that stand directly not for positive ideas but for their absence. For example ‘insipid’, ‘silence’, ‘nothing’, and their like denote positive ideas (taste, sound, being) together with a signification of their absence.

6. So a person can be truly said to see darkness. . . . The causes I have here assigned for certain positive ideas are privative [= ‘negative’] according to the common opinion, and so I have called them; but really it is hard to be sure whether there really are any ideas from a privative cause, until we have settled *whether rest is any more a privation than motion is*.

7. To reveal the nature of our ideas better, and to talk about them intelligibly, it will be convenient to distinguish them •as they are ideas or perceptions in our minds, and •as they are states of matter in the bodies that cause such perceptions in us. That may save us from the belief (which is perhaps the common opinion) that the ideas are exactly the images and resemblances of something inherent in the object. ·That belief is quite wrong·. Most ideas of sensation are (in the mind) no more *like* a thing existing outside us than the names that stand for them are *like* the ideas themselves.

8. Whatever the mind perceives in itself—whatever is the immediate object of perception, thought, or understanding—I call an *idea*; and the power to produce an idea in our mind I call a *quality* of the thing that has that power. Thus a snow-ball having the power to produce in us the ideas of white, cold, and round, the powers to produce those ideas in us, as they are in the snow-ball, I call *qualities*; and as they are sensations or perceptions in our understandings, I call them *ideas*. If I sometimes speak of ‘ideas’ as in the things themselves, please understand me to mean to be talking about the *qualities* in the objects that produce them in us.

9. Qualities thus considered in bodies are of two kinds. First, there are those that are utterly inseparable from the body, whatever state it is in. Qualities of this kind are the ones that a body doesn’t lose, however much it alters, whatever force is used on it, however finely it is divided. Take a grain of wheat, divide it into two parts, each part has still solidity, extension, shape, and mobility; divide it again, and it still retains those qualities; go on dividing it until the parts become imperceptible, each part must still retain all those qualities. . . . I call them original or *primary qualities* of body, which I think we may observe to produce simple ideas in us, viz. solidity, extension, shape, motion or rest, and number.

10. Secondly, there are qualities that are, in the objects themselves, really nothing but *powers to produce various sensations in us by their primary qualities*, i.e. by the size, shape, texture, and motion of their imperceptible parts. Examples of these are colours, sounds, tastes, and so on. I call these *secondary qualities*. To these we can add a third sort, an example of which is the power of fire to change the colour or consistency of wax and clay. This would ordinarily be said to be *only a power in* rather than a *quality of* the object; but it is just as much a real quality as the powers that I have called ‘secondary qualities’. (I call them ‘qualities’ so as to comply with the common way of speaking, and add ‘secondary’ to mark them off from the rest.) The primary qualities of fire—that is, the size, texture, and motion of its minute parts—give it a power to affect *wax and clay* etc.; and those same primary qualities give it a power to produce in *me* a sensation of warmth or burning; if the latter is a quality in the fire, why not the former also?

11. The next question is: How do bodies produce ideas in us? Obviously they do it by impact, which is the only way in which we can conceive bodies to operate.

12. External objects are not united [= ‘directly connected’] to our mind when they produce ideas in it, and yet we do somehow perceive qualities in the objects. Clearly there has to be some motion that goes from the object to our sense-organs, and from there is continued by our nerves or our animal spirits to the brains or the seat of sensation, there to produce in our mind the particular ideas we have of them. [Locke held the then-common view that human physiology involves ‘animal spirits’. These constitute the body’s hydraulic system (Bernard Williams’s phrase)—an *extremely* finely divided fluid that transmits pressures through tiny cracks and tunnels.] Since the extension, shape, number, and motion of visible bodies can be seen from a distance, it is evident that some bodies that are too small to be seen individually must travel from those bodies across to

the eyes, and thereby convey to the brain some motion that produces in us these ideas that we have of them.

13. We may conceive that the ideas of secondary qualities are also produced by the operation of insensible particles on our senses. Plainly there are plenty of bodies that are so small that we can't, by any of our senses, discover the size, shape, or motion of any one of them taken singly. The particles of the air and water are examples of this, and there are others still smaller—perhaps as much smaller than particles of air and water as the latter are smaller than peas or hail-stones. Let us suppose in the meantime that the different motions and shapes, sizes and number of such particles, affecting our various sense-organs, produce in us the different sensations that we have of the colours and smells of bodies. . . . It is no more impossible to conceive that God should attach such ideas to motions that in no way *resemble* them than it is that he should attach the idea [= 'feeling'] of pain to the motion of a piece of steel dividing our flesh, which in no way resembles the pain.

14. What I have said about colours and smells applies equally to tastes and sounds, and other such sensible qualities. Whatever reality we mistakenly attribute to them, they are really nothing in the objects themselves but powers to produce various sensations in us. These powers depend, as I have said, on those primary qualities, namely size, shape, texture, and motion of parts.

15. From this we can easily infer that the ideas of the primary qualities of bodies resemble them, and their patterns really do exist in the bodies themselves; but the ideas produced in us by secondary qualities don't resemble them at all. There is nothing *like* our ideas of secondary qualities existing in the bodies themselves. All they are in the bodies is *a power to produce those sensations in us*. What is sweet, blue, or warm in idea is nothing but the particular size, shape, and motion of the imperceptible parts in the bodies that we call 'sweet', 'blue', or 'warm'.

16. Flame is called 'hot' and 'light'; snow 'white' and 'cold'; and manna 'white' and 'sweet'—all from the ideas they produce in us. Those qualities are commonly thought to be the same in those bodies as those ideas are in us, the one perfectly resembling the other; and most people would think it weird to deny this. But think about this: a fire at one distance produces in us the sensation of •warmth, and when we come closer it produces in us the very different sensation of •pain; what reason can you give for saying that the idea of *warmth* that was produced in you by the fire *is actually in* the fire, without also saying that the idea of *pain* that the same fire produced in you in the same way *is not in* the fire? Why are whiteness and coldness in snow, and pain not, when it produces each idea in us, and can do so only through the size, shape, number, and motion of its solid parts?

17. The particular size, number, shape, and motion of the parts of fire or snow are really in them, whether or not anyone's senses perceive them. So they may be called *real* qualities, because they *really* exist in those bodies; but light, heat, whiteness or coldness

are no more really in them than sickness or pain is in manna. Take away the sensation of them—

let the eyes not see light or colours, or the ears hear sounds; let the palate not taste, or the nose smell—

and all colours, tastes, odours, and sounds vanish and cease, and are reduced to their causes, i.e. size, shape, and motion of parts.

18. A big enough piece of manna can produce in us the idea of a round or square shape, and, by being moved, the idea of motion. This idea of motion represents motion as it really is in the moving manna; a circle or square is the same •in idea as •in existence—the same •in the mind as •in the manna—and this motion and shape really are in the manna, whether or not we notice them. Everybody agrees with this. On the other hand, manna by virtue of the size, shape, texture, and motion of its parts has a power to produce in us the sensations of sickness and sometimes of acute pains. And everyone agrees also that •these ideas of sickness and pain are *not* in the manna, are only effects of its operations on us, and are *nowhere* when we don't feel them. Yet it is hard to get people to agree that •sweetness and whiteness are not really in manna either, and are also merely the effects of the operations of manna by the motion, size, and shape of its particles on the eyes and palate. . . . It would be hard for them to explain why the •ideas produced by the eyes and palate should be thought to be really in the manna, while •those produced by the stomach and guts are not; or why •the pain and sickness caused by the manna should be thought to be nowhere when they are not felt, while •the sweetness and whiteness of it should be thought to exist in the manna even when they are not seen or tasted.

19. Consider the red and white colours in porphyry. Prevent light from reaching the stone, and its colours vanish, it no longer produces any such ideas in us; when light returns, it produces these appearances in us again. Can anyone think that any real alterations are made in the porphyry by the presence or absence of light; and that those ideas of whiteness and redness are really in porphyry in the light, when it obviously has no colour in the dark? The porphyry has at *every* time a configuration of particles that is apt to produce in us the idea of redness when rays of light rebound from some parts of that hard stone, and to produce the idea of whiteness when the rays rebound from some other parts; but at *no* time are whiteness or redness in the stone.

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

21. We are now in a position to explain how it can happen that the same water, at the same time, produces the idea of cold by one hand and of heat by the other; whereas the same water couldn't possibly be at once hot and cold if those ideas were really in it. If we imagine warmth in our hands to be nothing but a certain sort and degree of motion in the minute particles of our nerves or animal spirits, we can understand how it is possible for the same water at the same time to produce the sensations of heat in one hand and of cold in the other (which shape never does; something never feels square to one hand and spherical to the other). If the sensation of heat and cold is nothing but the increase or

lessening of the motion of the minute parts of our bodies, caused by the corpuscles of some other body, we can easily understand that if motion is greater in one hand than in the other, and the two hands come into contact with a body that is intermediate between them in temperature, the particles in one hand will be slowed down while those of the other will speed up, thus causing different sensations.

22. In what I have been saying I have gone a little further than I intended into physical enquiries. [That is, into questions about the biology/psychology of ideas, questions about what *actually happens in the world* when ideas of a certain kind occur.] But I had to throw a little light on the nature of sensation, and to provide a firm grasp of how qualities in bodies differ from the ideas they produce in the mind; for without this I couldn't write intelligibly about ideas. I hope I shall be pardoned this little excursion into natural science. . . .

23. So the qualities that are in bodies are of three sorts.

First, the size, shape, number, position, and motion or rest of their solid parts; those are in them, whether or not we perceive them; and when they are big enough for us to perceive them they give us our idea of what kind of thing it is—as clearly happens with artifacts. For example, we recognize a clock or a coach from how its visible parts are assembled, without need for guesswork about its submicroscopic features. I call these *primary qualities*.

Secondly, the power that a body has, by reason of its imperceptible primary qualities, to operate in a special way on one of our senses, thereby producing in us the different ideas of various colours, sounds, smells, tastes, etc. These are usually called *sensible qualities*. I call them secondary qualities.

Thirdly, the power that a body has, by virtue of the particular set-up of its primary qualities, to change the size, shape, texture or motion of another body so as to make the latter operate on our senses differently from how it did before. Thus the sun has a power to make wax white, and fire to make lead fluid. These are usually called *powers*.

The first of these, I repeat, may be properly called real, original, or primary qualities, because they are in the things themselves, whether or not they are perceived. It is upon different modifications of them that the secondary qualities depend. [A 'modification' of a quality is a special case of it, a quality that involves it and more. Squareness is a modification of shapedness, which is a modification of extendedness.]

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

24. But though the two latter sorts of qualities are merely powers, nothing else, they [Locke means: one of the two sorts] are generally otherwise thought of. For the second sort, namely the powers to produce ideas in us by our senses, are looked upon as real qualities in the things thus affecting us. The third sort are regarded as mere powers: when we consider the sun in relation to wax that it melts or blanches, we look on the wax's whiteness and softness not as qualities in the sun but as effects produced by powers in the sun. This correct understanding of the third sort of qualities is also right for the second sort. If rightly considered, the qualities of light and warmth that are perceptions in me

when I am warmed or lit up by the sun are no more *in the sun* than are the changes made in the wax when it is blanched or melted. . . .

[Section 25 is a fairly long and somewhat complex explanation of why people are apt to think correctly about powers and incorrectly about secondary qualities.]

[Section 26 winds up the chapter without adding anything except the suggestion that the second sort of qualities ‘may be called secondary qualities, immediately perceivable’, and the third sort ‘secondary qualities, mediately perceivable’.]

Chapter xxiii: Our complex ideas of substances

1. The mind is supplied with many simple ideas, which come to it through the senses from outer things or through reflection on its own activities. Sometimes it notices that a certain number of these simple ideas go constantly together, and it presumes them to belong to *one thing*; and—because words are suited to ordinary ways of thinking and are used for speed and convenience—those ideas when united in one subject are called by *one name*. Then we carelessly talk as though we had here one simple idea, though really it is a complication of many ideas together. What has happened in such a case is that, because we can’t imagine how these simple ideas could exist by themselves, we have acquired the habit of assuming that they exist in (and result from) some substratum, which we call *substance*. [‘Substratum’ = ‘what underlies’ = something that serves as the *basis* or *foundation* of something else.]

2. So that if you examine your notion of *pure substance in general*, you will find that your only idea of it is a supposition of *an unknown support of qualities* that are able to cause simple ideas in us—qualities that are commonly called ‘accidents’. If anyone were asked •‘What is the subject in which colour or weight inheres?’, he would have to reply ‘In the solid extended parts’; and if he were asked •‘What does that solidity and extension inhere in?’, he would not be in a much better position than the Indian philosopher who said that the world was supported by a great elephant, and when asked what the elephant rested on answered ‘A great tortoise’. Being further pressed to know what supported the broad-backed tortoise, he replied that it was *something he knew not what*. So too here, as in all cases where we use words without having clear and distinct ideas, we talk like children who, being asked ‘What’s *this*?’ about something they don’t recognize, cheerfully answer ‘It’s a *thing*’. Really all this means, when said by either children or adults, is that they don’t know what it is, and that ‘the thing’ they purport to know and talk about isn’t something of which they have any distinct idea at all—they are indeed perfectly in the dark about it. So the idea of ours to which we give the general name ‘substance’, being nothing but the supposed but unknown support of those qualities we find existing and which we imagine can’t exist *sine re substante*—that is, without some thing to support them—we call that support *substantia*; which, according to the true meaning of the word, is in plain English *standing under* or upholding. [‘Sub’ is Latin for ‘under’, and ‘stans’ is Latin for ‘standing’; so ‘substans’ (English ‘substance’) literally means something that stands under something.]

3. In this way we form an obscure and relative idea of substance in general. It is *relative* because it isn't an idea of what substance is like in itself, but only an idea of how it •relates to something else, namely the qualities that it •upholds or stands under. From this we move on to having ideas of various sorts of substances, which we form by collecting combinations of simple ideas that we find in our experience tend to go together and which we therefore suppose to flow from the particular internal constitution or unknown essence of a substance. Thus we come to have the ideas of a *man, horse, gold, water*, etc. If you look into yourself, you will find that your only clear idea of these sorts of substances is the idea of certain simple ideas existing together. It is the combination of ordinary qualities observable in *iron*, or a *diamond*, that makes the true complex idea of those kinds of substances—kinds that a smith or a jeweller commonly knows better than a philosopher does. Whatever technical use he may make of the term 'substance', the philosopher or scientist has no idea of *iron* or *diamond* except what is provided by a collection of the simple ideas that are to be found in them—with •one further ingredient. Our complex ideas of substances are made up of those simple ideas plus •the confused idea of some *thing* to which they belong and in which they exist. So when we speak of any sort of substance, we say it is a thing having such or such qualities: body is a thing that is extended, shaped, and capable of motion; •spirit, a thing that can think; and we say that hardness and power to attract iron are qualities to be found *in* a loadstone, •conceived of as a *thing* containing these qualities. [Loadstone is a kind of rock that is naturally magnetic.] These and similar ways of speaking show that the substance is always thought of as some thing in addition to the extension, shape, solidity, motion, thinking, or other observable ideas, though we don't know what it is. [Locke uses •'spirit', as he does 'soul', to mean merely 'thing that thinks' or 'thing that has mental properties'. It doesn't mean something *spiritual* in any current sense of the term.]

4. So when we talk or think of any particular sort of corporeal substances—e.g. horse, stone, etc.—although our idea of it is nothing but the collection of simple ideas of qualities that we usually find united in the thing called 'horse' or 'stone', still we think of these qualities as existing in and supported by some common subject; and we give this support the name 'substance', though we have no clear or distinct idea of what it is. We are led to think in this way because we can't conceive how qualities could exist unsupported or with only one another for support.

5. The same thing happens concerning the operations of the mind—thinking, reasoning, fearing, etc. These can't exist by themselves, we think, nor can we see how they could belong to body or be produced by it; so we are apt to think that they are the actions of some other substance, which we call 'spirit'. We have as clear a notion of the substance of •spirit as we have of •body. The latter is supposed (without knowing what it is) to be •the substratum of those simple ideas that come to us from the outside, and the former is supposed (still not knowing what it is) to be •the substratum of the mental operations we experience within ourselves. Clearly, then, we have as poor a grasp of the idea of bodily substance as we have of spiritual substance or spirit. So we shouldn't infer that there is no such thing as spirit because we have no notion of the substance of spirit, any more than

we should conclude that there is no such thing as body because we have no clear and distinct idea of the substance of matter.

6. Whatever the secret, abstract nature of substance in general may be, therefore, all our ideas of particular sorts of substances are nothing but combinations of simple ideas co-existing in some unknown cause of their union. We represent particular sorts of substances to ourselves through such combinations of simple ideas, and in no other way. They are the only ideas we have of the various sorts of things—the sorts that we signify to other people by means of such names as ‘man’, ‘horse’, ‘sun’, ‘water’, ‘iron’. Anyone who hears such a word, and understands the language, forms in his mind a combination of those simple ideas that he has found—or thinks he has found—to exist together under that name; all of which he supposes to rest in and be fixed to that unknown common subject that does not inhere in anything else in its turn. Consider for instance the idea of the sun: it is merely a collection of the simple ideas, bright, hot, roundish, having a constant regular motion, at a certain distance from us—and perhaps a few others, depending on how accurately the owner of the idea has observed the properties of the sun.

7. The most perfect idea of any particular sort of substance results from putting together most of the simple ideas that do exist in it—i.e. in substances of that sort—including its active powers and passive capacities. (These are not simple ideas, but for brevity’s sake let us here pretend that they are.) Thus the complex idea of the substance that we call *a loadstone* has as a part *the power of attracting iron*; and *a power to be attracted by a loadstone* is a part of the complex idea we call ‘iron’. These *powers* are counted as inherent *qualities* of the things that have them.

Every substance is as likely, through the powers we observe in it, (a) to change the perceptible qualities of other subjects as (b) to produce in us those simple ideas that we receive *immediately* from it. When (b) happens with fire (say), our senses perceive in fire its heat and colour, which are really only the fire’s powers to produce those ideas in us. When (a) happens, we also learn about the fire because it acts upon us *mediately* [= ‘through an intermediary’] by turning wood into charcoal and thereby altering how *the wood* affects our senses. . . . In what follows, I shall sometimes include these powers among the simple ideas that we gather together in our minds when we think of particular substances. Of course they are not really *simple*; but they are *simpler* than the complex ideas of kinds of substance, of which they are merely parts.

8. It isn’t surprising that powers loom large in our complex ideas of substances. We mostly distinguish substances one from another through their secondary qualities, which therefore make a large part of our complex ideas of substances. (Our senses will not let us learn the sizes, textures, and shapes of the minute parts of bodies on which their real constitutions and differences depend; so we are thrown back on using their secondary qualities as bases for distinguishing them one from another.) And all the secondary qualities, as has been shown in viii, are nothing but powers. . . .

9. The ideas that make our complex ideas of bodily substances are of three sorts. First, the ideas of the *primary qualities* of things, including the size, shape, number, position,

and motion of the parts of bodies. We discover these by our senses, but they are in the bodies even when we don't perceive them. Secondly, the sensible [= 'perceptible'] *secondary qualities*. They depend on the primary qualities, and are nothing but the powers that bodies have to produce certain ideas in us through our senses. These ideas are not in the things themselves except in the sense that a thing is 'in' its cause. Thirdly, when we think that one substance can cause an alteration in the primary qualities of another, so that the altered substance would produce in us different ideas from what it did before, we speak of the active *powers* of the first substance and the passive *powers* of the second. We know about the powers of things only through sensible simple ideas. For example, whatever alteration a loadstone has the power to make in the minute particles of iron, we wouldn't suspect that it had *any* power to affect iron if that power weren't revealed by how the loadstone makes the iron particles move. I have no doubt that bodies that we handle every day have powers to cause thousands of changes in one another—powers that we never suspect because they never appear in sensible effects.

10. So it is proper that powers should loom large in our complex ideas of substances. If you examine your complex idea of *gold*, you will find that several of the ideas that make it up are only ideas of powers. For example, the power of being melted without being burned away, and the power of being dissolved in aqua regia [a mixture of nitric and hydrochloric acids]—these ideas are as essential to our complex idea of gold as are its colour and weight. Indeed, colour and weight when properly understood turn out also to be nothing but powers. For yellowness is not actually in gold, but is a power that gold has, when placed in proper light, to produce a certain idea in us through our eyes. Similarly, the heat that we can't leave out of our idea of the sun is no more really in the sun than is the white colour it gives to wax. These are both equally powers in the sun, which operates on a man—through the motion and shape of its sensible parts—so as to make him have the idea of heat; just as it operates on wax so as to make it capable of producing in a man the idea of white.

11. If our senses were sharp enough to distinguish the minute particles of bodies and the real constitution on which their sensible qualities depend, I am sure they would produce in us ideas quite different from the ones they now produce; the yellow colour of gold, for example, would be replaced by an admirable texture of parts of a certain size and shape. Microscopes plainly tell us this; for what to our naked eyes produces a certain colour is revealed through a microscope to be quite different. Thus sand or ground glass, which is opaque and white to the naked eye, is transparent under a microscope; and a hair seen this way loses its former colour and is mostly transparent, with a mixture of bright sparkling colours like the ones refracted from a diamond. Blood to the naked eye appears all red; but when its lesser parts are brought into view by a good microscope, it turns out to be a clear liquid with a few red globules floating in it. We don't know how these red globules would appear if glasses could be found that would magnify them a thousand or ten thousand times more.

12. God in his infinite wisdom has given us senses, faculties, and organs that are suitable for the conveniences of life and for the business we have to do here. Our senses enable us to know and distinguish things, and to examine them in enough detail to be able to make

use of them and in various ways accommodate them to our daily needs. Our insight into their admirable contrivances and wonderful effects goes far enough for us to admire and praise the wisdom, power, and goodness of their author. . . . But it seems that God didn't intend that we should have a perfect, clear, and adequate knowledge of things; and perhaps no finite being *can* have such knowledge. Our faculties, dull and weak as they are, suffice for us to discover enough in created things to lead us to •the knowledge of the creator, and •the knowledge of our duty; and we are also equipped with enough abilities to •provide for the conveniences of living. These are our business in this world. But if our senses were made much keener and more acute, the surface appearances of things would be quite different for us, and, I'm inclined to think that this would be inconsistent with our survival—or at least with our well-being—in this part of the universe that we inhabit. Think about how little we are fitted to survive being moved into air not much higher than the air we commonly breathe—that will give you reason to be satisfied that on this planet that has been assigned as our home God has suited our organs to the bodies that are to affect them, and vice versa. If our sense of hearing were merely one thousand times more acute than it is, how distracted we would be by perpetual noise! Even in the quietest retirement we would be less able to sleep or meditate than we are now in the middle of a sea-battle. If someone's eyesight (the most instructive of our senses) were a thousand or a hundred thousand times more acute than it is now through the best microscope, he would be able to see with his naked eyes things several million times smaller than the smallest object he can see now; and this would have •a good result and •a bad one. •It would bring him nearer to discovering the texture and motion of the minute parts of corporeal things, and he would probably get ideas of the internal constitutions of many of them. But then •he would be in a quite different world from other people: nothing would appear the same to him as to others; the visible ideas of everything would be different. So that I don't think that he could converse with others concerning the objects of sight, or communicate in any way about colours, their appearances being so wholly different. [The section continues with further remarks about the disadvantages of having 'such microscopical eyes (if I may so call them)'. It ends thus:] Someone who was sharp-sighted enough to see the arrangement of the minute particles of the spring of a clock, and observe the special structure and ways of moving on which its elastic motion depends, would no doubt discover something very admirable. But if his eyes were so formed that he couldn't *tell the time* by his clock, because he couldn't from a distance take in all at once the clock-hand and the numerals on the dial, he wouldn't get much advantage from the acuteness of his sight: it would let him in on the structure and workings of the parts of the machine while also making it useless to him!

[In section **13**—an admitted interruption of the main line of thought—Locke remarks that the structure of our sense organs is what sets limits to what we can perceive in the material world, and offers his 'extravagant conjecture' about 'Spirits', here meaning something like 'angels'. Assuming that they 'sometimes' have bodies, angels may be able to alter their sense organs at will, thus being able to perceive many things that we can't. Locke can't hide his envy about this, though he says that 'no doubt' God has good reasons for giving us sense-organs that we cannot flex at will, like muscles.]

14. Each of our ideas of a specific kind of substances is nothing but a collection of simple ideas considered as united in one thing. These ideas of substances, though they strike us as simple and have simple words as names, are nevertheless really complex and compounded. Thus the idea that an Englishman signifies by the name ‘swan’, is white colour, long neck, red beak, black legs, and webbed feet, and all these of a certain size, with a power of swimming in the water, and making a certain kind of noise—and perhaps other properties as well, for someone who knows a lot about this kind of bird—all united in one common subject.

15. Besides the complex ideas we have of •material sensible substances, we can also form the complex idea of an •immaterial spirit. We get this through the simple ideas we have taken from operations of our own minds that we experience daily in ourselves, such as
 thinking
 understanding
 willing
 knowing, and
 power of beginning motion, etc.

all co-existing in some substance. By putting these ideas together, we have as clear a perception and notion of immaterial substances as we have of material ones. For putting together the ideas of •thinking and •willing and •the power of starting or stopping bodily motion, joined to *substance*, of which we have no distinct idea, we have the idea of an •immaterial spirit; and by putting together the ideas of •solid parts that hold together, and •a power of being moved, joined with *substance*, of which likewise we have no positive idea, we have the idea of •matter. [Here ‘positive’ contrasts with ‘relative’. Our idea of substance in general is relative because it is only an idea of how substance relates to qualities—namely upholding and uniting them.] The one is as clear and distinct an idea as the other, the ideas of thinking and moving a body being as clear and distinct as the ideas of extension, solidity, and being moved. For our idea of substance is equally obscure, or none at all, in both: It is merely a supposed *I know not what*, to support qualities. Those who believe that our senses show us nothing but material things haven’t thought hard enough! When you think about it, you will realize that every act of sensation gives us an equal view of both parts of nature, the corporeal and the spiritual [= ‘the bodily and the mental’]. For while I know by seeing or hearing etc. that there is some bodily thing outside me that is the object of that sensation, I know with even more certainty that there is some spiritual being within me that sees and hears. This seeing and hearing can’t be done by mere senseless matter; it couldn’t occur except as the action of an immaterial thinking being.

16. All that we know of body is contained in our complex idea of it as extended, shaped, coloured, and having other sensible qualities; and all this is as far from the idea of the substance of body as we would be if we knew nothing at all. And although we think we are very familiar with matter, and know a great deal about many of its qualities, it may turn out that our basic ideas of •body are no more numerous, and no clearer, than our basic ideas of •immaterial spirit.

17. The basic ideas that we have that apply to body and not to spirit are •the holding together of parts that are solid and therefore separable, and •a power of causing things to move by colliding with them. Bodies also have shapes, but shape is merely a consequence of finite extension.

18. The ideas we have belonging exclusively to spirit are •thinking and •will (which is the power of putting body into motion by thought) and •liberty. Whereas a body can't help setting in motion a motionless body with which it collides, the mind is at liberty to put bodies into motion or refrain from doing so, as it pleases. The ideas of •existence, •duration, and •mobility are common to both body and spirit.

19. It shouldn't be thought strange that I attribute mobility to spirit. Spirits, like bodies can only operate *where they are*; we find that a single spirit operates at different times in different places; so I have to attribute *change of place* to all finite spirits (I'm not speaking of the infinite spirit here). For my soul [= 'spirit' = 'mind'] is a real thing just as much as my body is, and is equally capable of changing its distance from any other ·spatially located· being; and so it is capable of motion. . . .

20. Everyone finds in himself that his soul •can think, will, and operate on his body in the place where that body is, but •cannot operate on a body or in a place a hundred miles away. You can't imagine that your soul could think or move a body in Oxford while you are in London, and you have to realize that your soul, being united to your body, continually changes its location during the whole journey between Oxford and London, just as does the coach or horse that you ride on—so I think it can be said to be truly *in motion* throughout that journey. If that isn't conceded as giving a clear idea enough of the soul's motion, you will get one from ·the thought of· its being separated from the body in death; for it seems to impossible that you should think of it as •leaving the body while having no idea of •its motion.

[In section **21** Locke discusses a scholastic reason for denying that souls or spirits can move, and derisively challenges its supporters 'to put it into intelligible English'. He concludes:] Indeed motion cannot be attributed to God—not because he is an immaterial spirit but because he is an infinite one.

22. Let us compare our complex idea of *immaterial spirit* with our complex idea of *body*, and see whether one is more obscure than the other—and if so, which. Our idea of body, I think, is ·that of·

an extended solid substance, capable of transferring motion by impact;
and our idea of soul or immaterial spirit is ·the idea· of

a substance that thinks, and has a power of making a body move, by willing or thought. Which of these is more obscure and harder to grasp? I know that people whose thoughts are immersed in matter, and have so subjected their minds to their senses that they seldom reflect on anything that their senses can't reach, are apt to say that they can't comprehend a *thinking thing*. Perhaps they can't, but then if they think hard about it they'll realize that they can't comprehend an *extended thing* either.

23. If anyone says ‘I don’t know what it is that thinks in me’, he means that he doesn’t know what the substance is of that thinking thing. I respond that he has no better grasp of what the substance is of that solid thing. If he also says ‘I don’t know *how* I think’, I respond that he also doesn’t know *how* he is extended—that is, how the solid parts of body cohere together to make extension. I shall discuss the cohesion problem—the problem of explaining how portions of matter hang together to compose planets or pebbles or grains of sand—from here through to the end of section 27. The pressure of the particles of air may account for the cohesion of some parts of matter that are bigger than the particles of air and have pores that are smaller than those particles; but that can’t explain the coherence of the particles of air themselves. Whatever holds *them* together, it isn’t the pressure of the air! And if the pressure of any matter that is finer than the air—such as the *ether*—can unite and hold together the parts of a particle of air (as well as of other bodies), it still can’t make bonds *for itself* and hold together the parts that make up every least particle of that *materia subtilis* [= ‘extra-fine matter’]. Thus, however ingeniously we develop our explanation of how the parts of perceptible bodies are held together by the pressure of other imperceptible bodies—such as the particles of the ether—, that explanation doesn’t extend to the parts of the ether itself. The more success we have in showing that the parts of other bodies are held together by the external pressure of the ether, and can have no other conceivable cause of their cohesion and union, the more completely we are left in the dark about what holds together the *parts of each particle* of the ether itself. We •can’t conceive of those particles as not having parts, because they are bodies, and thus divisible; but we also •can’t conceive of how their parts cohere, because the explanation of how *everything else* coheres cannot be applied to *them*.

24. The foregoing argument shows that even if pressure from the ether •could explain the cohesion of most bodies, it leaves unexplained the cohesion of the particles of the ether itself. But in fact pressure, however great, from a surrounding fluid—such as the ether—•cannot be what causes the cohesion of the solid parts of matter. Such a pressure might prevent two things with polished surfaces from moving apart in a line •perpendicular to those surfaces, . . . but it can’t even slightly hinder their pulling apart in a line •parallel to those surfaces—I shall call this a ‘lateral motion’. The surrounding fluid is free to occupy each part of space that is deserted through such a lateral motion; so it doesn’t resist such a motion of bodies joined in that way, any more than it would resist the motion of a body that was surrounded on all sides by that fluid and didn’t touch any other body. And therefore, if there were no other cause of cohesion—than this surrounding-fluid one—, all parts of •all• bodies would be easily separable by such a lateral sliding motion. So it is no harder for us to have a clear idea of how the soul thinks than to have one of how body is extended. For the •extendedness of body consists in nothing but the •union and cohesion of its solid parts, so we shall have a poor grasp of the extension of body when we don’t understand the union and cohesion of its parts; and we *don’t* understand that, any more than we understand what thinking is and how it is performed.

25. Most people would wonder how anyone should see a difficulty in what they think they observe every day. ‘Don’t we see the parts of bodies stick firmly together? Is there anything more common? And what doubt can there be made of it?’ And similarly with regard to thinking and voluntary motion: ‘Don’t we experience it every moment in

ourselves? So can it be doubted?’ The matter of fact is clear, I agree, but when we want to look more closely and think about *how* it is done, we are at a loss both about extension and about thought. . . .

26. The little bodies that compose the fluid we call ‘water’ are so extremely small that I have never heard of anyone claiming to see their distinct size, shape, or motion through a microscope (and I’ve heard of microscopes that have magnified up to a hundred thousand times, and more). And the particles of water are also so perfectly loose one from another that the least force perceptibly separates them. Indeed, if we think about their perpetual motion we must accept that they *don’t* cohere with another; and when a sharp cold comes they unite, they consolidate, these little atoms cohere, and they can’t be separated without great force. Something we don’t yet know—and it would be a great discovery—is what the bonds are that tie these heaps of loose little bodies together so firmly, what the cement is that sticks them so tightly together in ice. But someone who made that discovery would still be long way from solving the *general* problem, making intelligible the extension of body (which is the cohesion of its solid parts). For *that* he would need to show how the parts of those bonds—or of that cement, or of the least particle of matter that exists—hold together. It seems, then, that this primary and supposedly obvious quality of body—extension—turns out when examined to be as incomprehensible as anything belonging to our minds, and that it is as hard to conceive a solid extended substance as it is to conceive a thinking immaterial one. . . .

27. Here is a further difficulty about solving the cohesion problem through an appeal to surrounding pressures. Let us suppose that matter is finite (as no doubt it is). Now think about the outermost bounds of the universe, and ask yourself:

What conceivable hoops, what bond, can hold *this unified mass of matter* together with a pressure from which steel must get its strength and diamonds their hardness and indissolubility?

If matter is finite, it must have boundaries, and there must be something that stops it from scattering in all directions. If you try to avoid this latest difficulty by supposing that the material world is *infinite* in extent, ask yourself what light you are throwing on the cohesion of body—whether you are making it more intelligible by relying on the most absurd and incomprehensible of all suppositions. So far is our idea of the extension of body (which is nothing but the cohesion of solid parts) from being clearer or more distinct when we enquire into the nature, cause, or manner of it, than is the idea of thinking!

28. Another idea that we have of body is the idea of the *power of transferring of motion by impact*: and of our souls the idea of the *power of exciting motion by thought*. Everyday experience clearly provides us with these two ideas, but here again if we enquire how each power is exercised, we are equally in the dark. In the most usual case of motion’s being communicated from one body to another through impact, the former body loses as much motion as the other acquires; and the only conception we have of what is going on here is that *motion passes out of one body into the other*. That seems to me to be as obscure and inconceivable as how our minds move or stop our bodies by thought, which we every moment find they do. Daily experience provides us with clear

evidence of motion produced by impact, and of motion produced by thought; but as for *how* this is done, we are equally at a loss with both. So that when we think about •the communication of motion, whether by body or by spirit, •the idea of it that is involved in spirit-as-mover is at least as clear as •the one involved in body-as-mover. And if we consider the *active power of moving* (called ‘motivity’ in xxi.73), it is much clearer in spirit than body. Place two bodies at rest side by side; they give us no idea of a power in the one to move the other, except through a borrowed motion. The mind, on the other hand, every day gives us ideas of an active power of moving bodies. This gives us reason to think that active power may be the proper [here = ‘exclusive’] attribute of spirits, and passive power the proper attribute of matter. If that is so, then created spirits are not totally separate from matter, because they are both active and passive. Pure spirit, namely God, is only active; pure matter is only passive; and beings ·like us· that are both active and passive may be judged to involve both. . . .

29. In conclusion: Sensation convinces us that there are •solid extended substances, and reflection that there are •thinking ones. Experience assures us that •one has a power to move body by impact, •the other by thought. That much is sure, and we have clear ideas of it; but we can’t go any further. If we start asking about nature, causes, and manner ·of operation·, we see no more clearly into the nature of extension than we do into the nature of thinking. It is no harder to conceive how a substance that we don’t know should •by thought set body into motion, than how a substance that we don’t know should •by impact set body into motion. . . .

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An Essay Concerning Human Understanding

By John Locke

Book III -- Words

- i. Words or language in general
- ii. The signification of words

Chapter i: Words or language in general

1. God, having designed man to be a sociable creature, not only made him with an inclination and a need to have fellowship with other men, but also equipped him with *language*, which was to be the great instrument and common tie of society. So nature shaped man’s organs so that he could make articulate sounds, which we call ‘words’. But

this was not enough to produce language, for parrots and some other birds can learn to make distinct enough articulate sounds, yet they are far from being capable of language.

2. Besides articulate sounds, therefore, man had also to be able to use these sounds as signs of internal conceptions, making them stand as marks of ideas in his own mind. This was so that he could make those ideas known to others, thus conveying thoughts from one mind to another.

3. But this still didn't suffice to make words as useful as they ought to be. If every particular thing had to be given a separate name, there would be *so many* words that the language would be too complicated to use; so a fully satisfactory language needs sounds that, as well as being signs of ideas, can be used in such a way that one idea covers a number of particular things. So language was improved in yet another way by coming to include *general terms*, so that one word can mark a multitude of particular things. Sounds could be used in this helpful manner only by signifying ideas of a special kind: names become general if they are made to stand for general ideas, and names remain particular if the ideas they signify are particular. [Locke regularly uses 'name' to cover not only proper names but also general words such as 'woman', 'island', 'atom' and so on.]

4. Besides these names standing for ideas, there are other words that men use to signify not any idea but rather the lack or absence of certain ideas or of all ideas whatsoever. Examples are *nihil* [= 'nothing'] in Latin, and in English 'ignorance' and 'barrenness'. These negative or privative words can't be said properly to have no ideas associated with them, for then they would be perfectly meaningless sounds. Rather, they relate to positive ideas, and signify their absence.

[In section 5 Locke discusses the words referring to items far removed from anything of which we have sense-experience. The meanings of many such words, he says, are borrowed from ideas of sense-perception.] For example, 'imagine', 'apprehend', 'comprehend', 'adhere', 'conceive', etc. are all words taken from the operations of perceptible things and applied to certain modes of thinking. . . .

6. But to understand better the use and force of language as a means for instruction and knowledge, we should tackle two questions. (1) In the use of language, what are names immediately applied to? Also, given that all words (except proper names) are general, and so stand not for particular things but for sorts and kinds of things, (2) what *are* these sorts and kinds (or, if you prefer Latin, these species and genera)? what do they consist in? how do they come to be made? When we have explored these thoroughly, we shall have a better chance of finding the right use of words, the natural advantages and defects of language, and the remedies that ought to be used to avoid obscurity or uncertainty in the signification of words. Without that, we can't talk in a clear and orderly way about knowledge; and knowledge, which has to do with propositions (most of them universal ones), has a greater connection with words than perhaps is suspected. So these matters will be the topic of the following chapters.

Chapter ii: The signification of words

1. A man may have a great variety of thoughts that could bring profit and delight to others as well as to himself; but they are all locked up inside him, invisible and hidden from others, and incapable of being brought out into the open. If society is to flourish, thoughts must be communicated; so people had to devise some external perceptible signs through which they could let one another know of those invisible ideas of which their thoughts are made up. For this purpose nothing was so suitable—because plentiful and quickly available—as those articulate sounds they found they could make so easily and in such variety. That is presumably how men came to use spoken words as the signs of their ideas. There is no natural connection between particular sounds and particular ideas (if there were, there would be only one human language); but people arbitrarily *chose* to use such and such a word as the mark of such and such an idea. So that is what words are used for, to be perceptible marks of ideas; and the ideas they stand for are their proper and immediate signification [= ‘meaning’]. [Locke uses ‘arbitrary’ in what was then its dominant sense, as meaning ‘dependent on human choice’, not implying that the choice was random or unreasonable or unmotivated. This will be important in v.3 and thereafter.]

2. Men use these marks either •to record their own thoughts as an aid to their memory or •to bring their ideas out into the open (so to speak) where others could see them. So words in their primary or immediate signification stand for nothing but the ideas in the mind of him that uses them, however imperfectly or carelessly those ideas are taken from the things they are supposed to represent. When one man speaks to another, it is so as to be understood; and the goal of his speech is for those sounds to mark his ideas and so make them known to the hearer. What words are the marks of, then, are the ideas of the speaker. And nobody can apply a word, *as a mark*, immediately to anything else. For that would involve making the word be a sign of his own conceptions, and yet apply it to another idea; which would be to make it a sign and yet not a sign of his ideas at the same time; which would in effect deprive it of all signification. ·In case it isn’t clear to you why I say ‘a sign of his own conceptions’, I shall explain: applying the word *as a mark* of a thing involves applying it *intending it to stand for* that thing, which means applying it with an accompanying thought about the word’s significance·.

·Here is a second argument for the same conclusion·. Words are voluntary signs, and can’t be voluntary signs imposed by someone on something that he doesn’t know, for that would be to make them signs of nothing, sounds without signification. For a man to make his words be the signs either of •qualities in things or of •conceptions in someone else’s mind, he must have *in his own mind* •ideas of those qualities or conceptions. Till he has some ideas of his own, he can’t suppose them to correspond with the conceptions of another man. And when a man represents to himself other men’s ideas by some of his own, he may agree to give them the same names that other men do; but it is still his own ideas ·that he immediately signifies·—ideas that he has, not ones that he lacks.

3. This is necessary if language is to succeed—so necessary that in this respect ignorant people and learned ones all use words in the same ways. Meaningful words, in each man’s mouth, stand for the ideas that he has and wants to express by them. A child who

has seen some metal and heard it called 'gold', and has noticed nothing in it but its bright shining yellow colour, will apply the word 'gold' only to his own idea of that colour and to nothing else; and so he will call that same colour in a peacock's tail 'gold'. Someone who has also noticed that the stuff is heavy will use the sound 'gold' to stand for a complex idea of a shining, yellow, *and very heavy* substance. Another adds fusibility to the list; and then for him the word 'gold' signifies a body that is bright, yellow, *fusible*, and very heavy. Another adds malleability, and so on. Each uses the word 'gold' when he has occasion to express the idea that he has associated with it; but obviously each can apply it only to his own idea, and can't make it stand as a sign of a complex idea that he doesn't have.

4. But although words can properly and immediately signify nothing but ideas in the mind of the speaker, yet men in their thoughts give words a secret reference to two other things. First, they suppose their words to be marks also of ideas in the mind of *the hearer*. Without that they would talk in vain; if the sounds they applied to one idea were applied by the hearer to another, they couldn't be understood, and would be speaking different languages. Men don't often pause to consider whether their ideas are the same as those of the hearers. They are satisfied with using the word in what they think to be its ordinary meaning in that language; which involves supposing that the idea they make it a sign of is precisely the same as the one to which literate people in that country apply that name.

5. Secondly, because a man wants his hearers to think he is talking not merely about his own imagination but about things as they really are, he will often suppose his words to stand not just for his ideas but also for the reality of things. This relates especially to *substances and their names*, as perhaps the former 'secret reference' does to *simple ideas and modes and their names*; so I shall deal more fully with these two different ways of applying words when I come to discuss the names of mixed modes and especially of substances. Let me just say here that it is a perverting of the use of words, and brings unavoidable obscurity and confusion into their signification, whenever we make them stand for anything but ideas in our own minds.

6. Two further points about words are worth noting. First, because they immediately signify one's own ideas, . . . the constant use of a word may create such a connection between that sound and the idea it signifies that hearing the word excites the idea almost as readily as if the relevant kind of object were presented to the senses. This is manifestly so in regard to all the obvious perceptible qualities, and in regard to in all substances that frequently come our way.

7. Secondly, through familiar use of words from our cradles we come to learn certain articulate sounds very perfectly, and have them readily on our tongues and always at hand in our memories, yet are not always careful about what exactly they mean; and so it comes about that men, even when they want to think hard and carefully, often direct their thoughts more to *words* than to *things*. Indeed it goes further. Many words are learned before the ideas for which they stand are known, and so it happens that some people—not only children, but adults—utter various words just as parrots do, because they have learned them and have been accustomed to those sounds. But so far as words are useful

and significant, so far as there is a constant connection between the sound and the idea, and a designation that the one stands for the other. 'Words' that are not thus connected with ideas are nothing but so much insignificant noise.

[In section 8 Locke emphasizes that each word has its meaning by a purely 'arbitrary imposition', and that ultimately it is for each individual to decide what idea *he* will associate with a given word. There are practical reasons for wanting one's own word-idea pairings to be the same as those of most speakers and hearer's in one's own society; but that is a practical concern that leaves standing the fact of personal responsibility for the meanings of one's speech.]