

Preliminary

No. 1 of *Essays on the Intellectual Powers of Man*

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[Brackets] enclose editorial explanations. Small ·dots· enclose material that has been added, but can be read as though it were part of the original text. Occasional •bullets, and also indenting of passages that are not quotations, are meant as aids to grasping the structure of a sentence or a thought. Every four-point ellipsis. . . . indicates the omission of a brief passage that seems to present more difficulty than it is worth. Longer omissions are reported between brackets in normal-sized type.

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Preface

Human knowledge falls into two parts, one relating to body (material things), the other relating to mind (intellectual things).

The whole system of bodies in the universe, of which we know only a very small part, can be called ‘the material world’; the whole system of minds, from the infinite creator right down to the lowest creature endowed with thought, can be called ‘the intellectual world’. These are the two great kingdoms of Nature that come to our attention; and every art, every science, and every human thought is engaged with one or other of them or with things pertaining to them—the boldest flight of imagination can’t take us outside them.

Even within them there are many things—concerning the nature and the structure of bodies and of minds—that we aren’t equipped to discover, many problems that the ablest philosopher can’t solve; but if there are any natures other than those of body and mind we have no knowledge *at all* of them, no *conception* at all of them. [Throughout this work, ‘philosophy’ stands for what you and I call ‘philosophy’ and/or for what we would call ‘science’; the reference of ‘philosopher’ is correspondingly variable.]

Every existing thing must be either •corporeal or •incorporeal—that is obvious. But it isn’t so obvious that every existing thing must be either •corporeal or •endowed with thought. Does the universe contain beings that are *neither* extended, solid and inert, like body, *nor* active and thinking, like mind? The answer to that seems to be beyond our reach. There appears to be a vast gulf between body and mind, and we just don’t know whether there is any intermediate nature—some kind of thing that isn’t either body or mind, but has some points of resemblance with

each—that connects them with one another.

We have no reason to credit plants with thought, or even sensation; yet they display an active force and energy that can’t be purely the result of any arrangement or combination of inert matter. The same thing can be said of the powers by which

animals are nourished and grow,
matter gravitates,
magnetic and electrical bodies attract and repel each other,
the parts of solid bodies hang together.

There’s no evidence that there is anything *thoughtful* about any of these, but they seem to involve forces that can’t be explained in terms of what is purely corporeal, i.e. in terms of collisions of inert, *inactive* material particles.

Some thinkers have conjectured that all events in the material world that require active force are produced by the continual operation of thinking beings. Others have conjectured that the universe may contain beings that are *active but don’t think*—a kind of incorporeal machinery (incorporeal because active) that God has devised to do their assigned work without any knowledge or intention. We should set aside conjectures, and all claims to settle things that are really beyond our reach, and accept this: the only things we can have any knowledge of, or can form any conception of, are body and mind. . . .

Because all our knowledge is confined to •body and •mind, or things pertaining to them, there are correspondingly two great branches of philosophy. (1) The properties of body, and the laws that hold in the material system, are studied by •natural philosophy, as that word (i.e. the word ‘natural’)

is now used. (2) The branch that deals with the nature and workings of minds is called ‘pneumatology’ by some, though that label won’t occur again in this set of Essays. The principles of all the sciences belong to one or other of these branches.

We aren’t in a position to say what varieties of minds or thinking beings this vast universe contains. We live in a little corner of God’s dominion, cut off from the rest of it. The globe that we inhabit is merely one of seven planets that encircle our sun.

What kinds of beings inhabit the other six planets, their satellites, and the comets belonging to our system? How many other suns are there that have similar planetary systems? The answers to these questions are entirely hidden from us. Although human reason and hard work have discovered with great accuracy the order and distances of the planets, and the laws governing their motion, we have no way of causally interacting with them.

It’s quite probable that they are inhabited by living creatures, but we know absolutely nothing about the nature or the powers of any such things. Everyone is conscious of a thinking principle or mind, in himself, and we have good enough evidence of something similar in other men. [Reid here uses ‘principle’ in a sense that it had in his day, meaning a *source*. Here, as in many places, it is a cause or active source, so that ‘a thinking principle or mind’ means ‘a thought-generator, i.e. a mind’. Reid also uses ‘principle’ to stand for a special kind of proposition (as it does for us).] The actions of non-human animals show that they too have some thinking principle, though one that is much inferior to the human mind. And everything around us can convince us of the existence of a supreme mind, God, who made the universe and governs it. These are the only minds that reason can give us any certain knowledge about—our minds, those of the animals below us, and of God above us.

The mind of man is the noblest work of God that reason reveals to us, and this gives it a dignity that makes it worth studying. But we have to face it: although the human mind is nearer to us than any other objects, and seems the most within our reach, it’s very hard to focus on its workings so as to get a clear notion of them; and that is why able theorists have blundered into greater errors and even absurdities in this branch of knowledge than in any other. These errors and absurdities have led to a general prejudice against all enquiries of this sort. Because able men through the centuries have given different and contradictory accounts of the powers of the mind, it is concluded that all theories about them must be fanciful and illusory.

But however this prejudice may affect superficial thinkers, those with good judgment won’t be apt to be carried away by it.

About two hundred years ago the opinions of men in natural philosophy were as various and as contradictory as they are now concerning the powers of the mind. Galileo, Torricelli, Kepler, Bacon, and Newton had the same discouragement in their attempts to throw light on the material system as we have with regard to the intellectual system. If they had been deterred by such prejudices, we would never have reaped the benefit of their discoveries—discoveries that do honour to human nature and will make their names immortal. . . . There’s a natural order in the progress of the sciences, and good reasons can be given why the philosophy of body should be elder sister to the philosophy of mind, and should grow up faster; but the latter has just as much life in it as the former does, and it will grow to maturity, though slowly. The remains of ancient philosophy on this subject are venerable ruins that have the marks of ability and hard work; they are sufficient to arouse our curiosity but not to satisfy it. In later ages, Descartes was the first to

point out the road we ought to take in those dark regions. Malebranche, Arnauld, Locke, Berkeley, Buffier, Hutcheson, Butler, Hume, Price, and Lord Kames have all tried hard to make discoveries, and their efforts haven't been in vain. Though their conclusions are different and contrary, and though some of them are very sceptical, those conclusions have nevertheless given new light and cleared the way for those who will come after them.

We ought never to despair of human ability. Rather, we should hope that in due course it will produce a system of the powers and operations of the human mind that is just as certain as the systems of optics and astronomy.

We have all the more reason to hope for this because clear knowledge of the powers of the mind would undoubtedly throw much light on many other branches of science. Hume rightly said:

All the sciences have a relation to human nature; and however far any of them may seem to stray from it, they still return back by one route or another. This is the centre—the capital ·city·—of the sciences, and once we are masters of *it* we can easily extend our conquests everywhere. (*Treatise of Human Nature*, Introduction)

The faculties of our minds are the tools and engines that we must use in everything we think or say; and the better we understand their nature and force, the more successfully we'll be able to use them. Locke gives this account of what started him working towards his *Essay Concerning Human Understanding*:

A few friends meeting in my room and discussing a topic very remote from this soon found themselves brought to a halt by the difficulties that arose on every side. After we had puzzled over them for a while without coming any nearer to solving the problems that perplexed us, it occurred to me that we had gone

off-course, and that before embarking of enquiries of that nature we needed to *to examine our own abilities*, and see which topics our understandings were fitted to deal with and which they were not. . . . (*Essay*, Letter to the Reader).

If ignorance of the powers of our minds is often the cause of tangled difficulties in discussions that have almost nothing to do with the mind, it must do much more harm in discussions that have an immediate connection with it.

The sciences can be divided into two classes, on the basis of whether they pertain to the material or to the intellectual world. The study of the material world includes:

the various parts of natural philosophy,
the mechanical arts,
chemistry,
medicine,
agriculture.

The study of the intellectual world contains:

grammar,
logic,
rhetoric,
natural theology;

and also

morals,
jurisprudence,
law,
politics,
the fine arts.

Knowledge of the human mind is the root from which these grow, and draw their nourishment.

So this subject deserves to be cultivated, because of its dignity, its usefulness to the sciences, especially the noblest ones, and. . . its constituting one way of paying tribute to God.

Chapter 1: Explaining the meanings of some words

There is no greater obstacle to the advancement of knowledge than the *ambiguity of words*. It is the main reason why in most branches of science we find sects and parties, and disputes that are carried on down the centuries without being settled.

Sophistry [= 'logical trickery'] has been more effectively excluded from mathematics and natural philosophy than from other sciences. In mathematics it had no place from the beginning, because mathematicians had the wisdom to •define their terms precisely and to •lay down as axioms the first principles on which their reasoning was based. And so we find no parties ·or sects· among mathematicians, and hardly any disputes.

Until about a century and a half ago, natural philosophy contained as much sophistry, dispute, and uncertainty as any other science; but at that time it began to be built on the foundation of •clear definitions and •self-evident axioms. Since then natural philosophy has grown quickly, as if watered with the dew of heaven; disputes have stopped, truth has prevailed, and the science has made more progress in two centuries than in two thousand years before.

It would be good if this method that has been so successful in mathematics and natural philosophy—·namely the method that starts with clear definitions and self-evident axioms·—were attempted in other sciences as well; for definitions and axioms are the foundations of all science. I shall now set out some general principles concerning *definition*. I'm doing this for the benefit of readers who don't know much about this branch of logic, to spare them from trying to provide definitions in cases where the subject doesn't allow them.

[The word 'art' is coming up in a way that needs attention. In Reid's time an 'art' was any human activity that involves techniques or rules of procedure. 'Arts' in this sense include medicine, farming, and painting.] Someone trying to explain any art or science will need to use •many words that are common to all speakers of the language, and •some that are exclusive to that art or science. Words of the latter kind are called *terms of the art*, and they ought to be clearly explained so that their meaning can be understood.

A definition is just an explanation of the meaning of a word through words whose meanings are already known. Obviously, then, not every word can be defined: a definition must consist of words, and there couldn't be any definition if there weren't words already understood without definition. Common words, therefore, should to be used in their common meanings; and if a word has different meanings in ordinary language, these may need to be distinguished, but they don't need to be defined.

The only words that need to be defined are *uncommon* ones and ones that are used with an uncommon meaning.

Many words need to be explained but can't be logically defined. A logical definition—i.e. a strict and proper definition—states

the •kind of things to which the defined word applies,
and
the specific •difference marking off the thing's •species
from every other species belonging to that kind.

It is natural to the human mind to class things under various kinds, and then to subdivide every kind into its various species. Often a species can be subdivided into subordinate species, and then it—i.e. the species·—is considered as

a kind. [(1) Reid is here presenting ideas that are usually expressed in terms of *genus*-difference-species. In the first chapter of Essay 5 he goes through this again, using 'genus' throughout and, once, 'kind or genus'. (2) After saying that 'no *word* can be defined unless. . .', Reid will infer not that we can't define 'London' but that we can't define London. All through the coming discussion he wobbles between talk of defining *words* and defining *things*. This wobble won't be cured in the present version.]

This makes it clear that no word can be logically defined unless it stands for a species, because without a species there can't be a specific difference marking off species from kind or genus, a specific difference is *essential* to a logical definition. That is why there can't be a logical definition of an individual thing such as London or Paris.

Individuals are distinguished either by proper names ('London') or by accidental circumstances of time or place ('the city where Thomas Hobbes lived'); but they don't have any specific difference, and so they can't be defined. Equally obviously, the *most* general words can't be logically defined, because they aren't a species of some still more general term.

Indeed, we can't even define every species of things, because for some species we have no words to express the specific difference. A scarlet colour is of course a species of colour; but how are we to express the specific difference marking off scarlet from green or blue? We can immediately *see* the difference, but we have no words in which to *say* what it is.

We are taught these things by logic. But we needn't appeal to the principles of logic to be convinced that a word can't be defined if it signifies something that is perfectly simple, not in any way composite. I think it was Descartes who first made this point, which was later fully illustrated by Locke. Though it seems quite obvious, there have been many cases where great philosophers either didn't know it

or didn't attend to it, and were led by that to create tangles and darkness in the subjects they were dealing with.

When men try to define things that can't be defined, their definitions will always be either obscure or false. One of the chief defects of Aristotle's philosophy was his purporting to define the simplest things—such as time and motion—that can't be, *and don't need to be*, defined. [Then Reid gives a contemptuous sketch of the work of 'the famous German philosopher Wolff', whose sins, he says, include giving 'definitions of things that can't be defined'.]

Discussions of the powers and operations of the mind involves much use of words that can't be logically defined—no topic involves them more! The simplest operations of our minds must *all* be expressed by words of this kind. No man can explain by a logical definition what it is to *think*, to *apprehend*, to *believe*, to *will*, to *desire*. Everyone who understands the language has some notion of what those words mean, and everyone who is capable of looking in on himself can form a clear and distinct notion of them by attending to the workings of his own mind, but they can't be logically defined.

So, since we often can't define words that we have to use in this area, we must as far as possible use common words in their common meanings, sorting out their different senses when they are ambiguous; and when we have to use less common words we must try to explain them as well as we can without the pretence of giving logical definitions when the nature of the thing doesn't permit it.

In the remainder of this chapter I shall offer twelve sets of remarks about the meanings of certain words. Not having definitions of these words, I want to do what I can to prevent ambiguity or obscurity in the use of them. Here is a list of the words in question:

1. 'mind'
2. 'operation'
3. 'power' and 'faculty'
4. 'in' (as in the phrase 'in the mind')
5. 'thinking'
6. 'perception'
7. 'consciousness'
8. 'conceive', 'imagine', 'apprehend'
9. 'operations' versus 'objects of operations'
10. 'idea'
11. 'impression'
12. 'sensation' and 'feeling'

It may be helpful to be able to look them over in advance.

1. By the *mind* of a man we understand *whatever it is in him that thinks, remembers, reasons, wills*. We don't know what the essence is of body or of mind. We know certain •properties of body, and certain •operations of mind, and it is only in terms of these that we can define or describe them. We define *body* as *that which is extended, solid, movable and divisible*, and similarly we define *mind* as *that which thinks*. We are conscious that we think, and that we have thoughts of many different kinds, such as seeing, hearing, remembering, wondering what to do, deciding what to do, loving, hating, and many more. We are taught by Nature to attribute all these to one internal principle, and we call this principle of thought the 'mind' or 'soul' of a man. [See page 2 note on 'principle'.]

2. By *operations* of the mind we understand *every mode of thinking of which we are conscious* ['mode of thinking' = 'way of thinking'].

It is worth noticing that the various modes of thinking have always, and in all languages as far as I know, been called 'operations' of the mind or by names to the same

effect. In general, the *modes* of a thing are its states, ways that it is, qualities that it has, details concerning it; but the modes of a mind, in particular, are things that it *does*. We attribute to bodies various modes or properties, but not *operations* properly so called. A body is extended, divisible, movable, inert; it continues in any state that it is put into; every change in its state is the effect of some force acting on it, and the change is exactly proportional to that force, and occurs in precisely the same direction as the force. These are the general •properties of matter, and they aren't •operations—i.e. they aren't things that the matter *does*. On the contrary, they all imply that matter is a dead inactive thing—something that *moves* only as it *is moved*, and acts only by being acted on.

In contrast with that, the mind is from its very nature a living and active thing. Everything we know about it implies life and active energy; and the reason why all its modes are called its 'operations' is that in all or in most of them the mind is not merely passive, like body, but is really and properly active. At all times and in all languages, ancient and modern, the various modes of thinking have been expressed by words that have activity in their meanings, such as 'seeing', 'hearing', 'reasoning', 'willing' and the like. So it seems to be the natural judgment of mankind that the mind is active in its various ways of thinking; and that's why they are called its 'operations' and are expressed by active verbs.

You may want to ask: 'How much weight should we give to this natural judgment? Mightn't it be merely a vulgar error?' [In Reid's day 'vulgar' meant 'of common ordinary not very educated people'. It didn't imply vulgarity in *our* sense of that word.] Philosophers who think so certainly have a right to be heard. But until it is proved that the mind is not active in thinking but merely passive, the common way of talking about its

operations ought to be followed. We shouldn't set it aside in favour of some phraseology, invented by philosophers, implying that the mind is merely passive.

3. The words 'power' and 'faculty', which are often used in speaking of the mind, don't need much explanation. Every operation presupposes a power in the being that operates; for it is plainly absurd to suppose that something operates without having any power to operate. But there's nothing absurd about supposing that something has the power to operate but *doesn't* operate. Thus I may while sitting have the power to walk, and while remaining silent I may have the power to speak. So: every operation implies power; but the power doesn't imply the operation.

The 'faculties' of the mind and its 'powers' are often used as synonymous expressions. But most pairs of supposed-synonyms differ in some tiny way that ought to be noticed. As I see it, the word 'faculty' is most properly applied to *basic and natural* powers of the mind, ones that are part of its constitution. Other powers can be acquired through use, exercise or study, and these are called 'habits', not 'faculties' . . .

4. Writers on the mind frequently distinguish things that are 'in' the mind from things that are 'external' to it.

The mind's powers, faculties and operations are things *in* the mind. Everything of which the mind is the subject is said to be 'in' the mind. It is self-evident that some things cannot exist without a subject to which they belong, and of which they are attributes: colour must be in something coloured; shape in something shaped; thought in something that thinks; wisdom and virtue in some being that is wise and virtuous. So when we speak of things 'in' the mind, we mean *things of which the mind is the subject*. Except for the mind itself and things in it, everything else is said to be 'external' to the mind. Bear in mind, then, that in describing

something as 'in' the mind or as 'external' to it we are not saying anything about *where* the thing is, but only about what its subject is ·if it has one· . . .

5. 'Thinking' is a very general word that covers all the operations of our minds, and is so well understood that it doesn't need any definition.

To 'perceive', to 'remember', to 'be conscious', and to 'conceive' or 'imagine' are all words used by philosophers and by the vulgar. They stand for different operations of the mind—ones that are distinguished in all languages and by all people who think. I'll try to use them with their most common and proper meanings, and I think they're hardly capable of strict definition. But some philosophers of mind have felt free to use them very *improperly*, corrupting the English language and •running together things that the common understanding of mankind has always led men to •distinguish. So I shall say some things about their meanings, aiming to prevent ambiguity or confusion in the use of them.

6. First, we are never said to 'perceive' something of whose existence we aren't completely convinced. I can •conceive or •imagine a mountain of gold or a winged horse, but no-one says that he •*perceives* such an imaginary creature. That distinguishes perception from conception and imagination. Secondly, the only things one is said to 'perceive' are external objects, not ones that are in the mind itself. When I am pained I don't say that I *perceive* pain, but that I *feel* it or *am conscious of* it. That distinguishes perception from consciousness. Thirdly, the immediate object of perception must be something present, not something in the past. We can remember past events but we can't perceive them. I may say 'I perceive that that man has had small-pox', but this is a mere figure of speech—though such a familiar one that people don't notice that that's what it is. What it

means is that I perceive the pits in his face that are certain signs of his having had the smallpox. We say that we perceive •the thing signified (·the past small-pox·), when really we perceive only •the sign (·the present disfigurement·). When the word ‘perception’ is used properly and literally, it is never applied to past things. That distinguishes perceiving from remembering.

In short, ‘perception’ is most properly applied to the evidence that our •senses give us concerning external objects. But as this is a very clear and compelling kind of evidence, the word ‘perception’ is often applied by analogy to the evidence •of reason, or of •testimony when it is clear and compelling. ·But this way of talking is analogical and loose·. The perception of external objects through our senses is a very special and individual operation of the mind, and ought to have a name to itself. And in all languages it *has*. I don’t know of any English word more suitable for expressing this act of the mind than ‘perception’. ‘Seeing’, ‘hearing’, ‘smelling’, ‘tasting’ and ‘touching’ or ‘feeling’ are words that express the operations associated with each sense; ‘perceiving’ expresses what they all have in common.

There would have been no need for these remarks about ‘perception’ and ‘perceive’ if they hadn’t been misused so badly in philosophical writings about the mind; there’s nothing wrong with how they are used anywhere else! [Reid goes on to name Hume as the worst offender, citing passages in the *Treatise* implying that perceptions include impressions, ideas, sensations, passions and emotions. Reid scornfully dismisses this.]

7. ‘Consciousness’ is a word used by philosophers to signify the immediate knowledge we have of our present thoughts and purposes, and in general of all the present operations of our minds.

So consciousness is only of things in the present. To

speak of ‘consciousness’ of past things, as is sometimes done in everyday talk, is to confuse consciousness with memory; and all such confusions of words ought to be avoided in philosophical discourse. Notice also that one can be ‘conscious’ only of things in one’s mind, not of things external to it. It is all right for me to say that I *perceive* or *see* the table at which I am writing, but I shouldn’t say that I am *conscious of* it. Consciousness is the power by which we know about operations of our own minds; it is quite different from the power by which we perceive external objects; and these different powers have different names in our language and (I believe) in all languages. So a philosopher ought carefully to preserve this distinction, and never to run together things that are so different in their nature.

8. ‘Conceiving’, ‘imagining’ and ‘apprehending’ are commonly used as synonymous in our language, signifying the same thing that logicians call ‘simple apprehension’. This operation of the mind is quite different from any of the ones mentioned above. Whenever we perceive or remember or are conscious of something, we are fully convinced of its existence. But we can conceive or imagine something that doesn’t exist and that we firmly believe doesn’t exist. What never existed can’t be remembered; what doesn’t exist now can’t be the object of perception or of consciousness ·now·; but what never did or does exist can be conceived. . . . Conceiving, imagining, and apprehending, with those words properly understood, are acts of the mind that imply no belief or judgment at all. And an act of the mind by which nothing is affirmed or denied can’t be either true or false.

But those words have another very different meaning which is so common and so well authorised in language that it can’t easily be avoided; and for that reason we ought to be especially on our guard not to be misled by the ambiguity.

Politeness and good breeding lead men, on most occasions, to express their opinions with modesty, especially when they differ from others whom they ought to respect. So instead of saying ‘This is my opinion’ or ‘This is my judgment’, which sounds dogmatic, we say, ‘I conceive. . .’ or ‘I imagine. . .’ or ‘I apprehend. . .’, which is understood as a modest declaration of our judgment. Similarly, when someone says something that we take to be impossible, we say ‘I can’t conceive it’, meaning that we can’t believe it.

[Reid goes on to offer a rule of thumb for distinguishing the two senses: in the strict sense we say ‘I conceive [noun phrase]’, e.g. ‘I conceive a pyramid’; in the other sense—the belief-involving one—we say ‘I conceive that [sentence]’, e.g. ‘I conceive that the speed of light is not infinite’. He admits that the rule has exceptions, because one can use the form ‘I conceive [sentence]’ to mean something that is *not* belief-involving. In a second paragraph he says that in ordinary life we get into no significant troubles because of this ambiguity in those verbs. But the ambiguity, he concludes:] has tangled philosophers discussing the operations of the mind, and it will go on doing so if they don’t attend carefully to the different meanings that those words have on different occasions.

9. Most of the operations of the mind must, from their very nature, have objects to which they are directed. . . . To perceive, you must perceive *something*; and what you perceive is called the object of your perception. It is impossible to perceive without having any object of perception. The perceiving mind, the object perceived, and the operation of perceiving that object are three distinct things, and are distinguished in the structure of all languages. In the sentence

I ... see (or perceive) ... the moon
we have

the person or mind ... the operation of that mind ...
the object.

And this applies equally to most operations of the mind.

In every language such operations are expressed by active transitive verbs. [Reid goes on to say that the grammatical structure that is involved here:

nominative ... active transitive verb ... accusative
enshrines the distinction that he is emphasizing. Which shows] that all mankind—those who invented language and those who use it—have distinguished these three things. . . .

I wouldn’t have needed to explain such an obvious distinction if some systems of philosophy hadn’t muddled it up. Hume’s system, in particular, obliterates any distinction between the mind’s operations and the objects of those operations. When he speaks of ‘ideas of memory’, ‘ideas of imagination’, and ‘ideas of sense’, it is often impossible to gather from the context whether he is using ‘ideas’ to refer to the operations of the mind or to the objects to which they are directed. According to his system, indeed, there *isn’t* any distinction between the operation and its object.

Of course a philosopher is entitled to look critically even at distinctions that are to be found in the structure of all languages; and if he can

show that some such distinction has no foundation
in the nature of the things that are distinguished,

if he can

point out some prejudice shared by all mankind that
has led them to distinguish things that are not really
different,

in *that* case such a distinction may be attributed to a vulgar error that ought to be corrected in philosophy. But when from the outset he takes it for granted, without proof, that some distinction found in the structure of all languages has no foundation in Nature, this is surely too dismissive

a way of treating the common sense of mankind. When we come to philosophers for instruction, we must bring common sense along with us, judging by its old light the new light that the philosopher is offering us. When we are told to *extinguish* the old light so that we can follow the new, we have reason to be on our guard! There may be well-grounded distinctions that •have to be made in philosophy but •are not made in ordinary language because they aren't needed in the everyday business of life. But I don't think there are *any* distinctions that •are made in all languages but •don't have a solid basis in Nature.

10. The word 'idea' occurs so frequently in modern philosophical writings about the mind, and is so ambiguous in its meaning, that I have to make some remarks about it. There are chiefly two meanings of this word in modern authors, a •popular and a •philosophical. [Throughout this work 'popular' means 'pertaining to ordinary people', *not* 'widely liked'.]

First, in **popular** language 'idea' means the same as 'conception', 'apprehension' and 'notion'.

To have an idea of something is to conceive it.

To have a distinct idea is to conceive it distinctly.

To have no idea of it is not to conceive it at all.

I said earlier that conceiving or apprehending has always been taken by everyone to be an act or operation of the mind, which is why it is expressed in all languages by an active verb. So when we speak of 'having ideas', in the popular sense, we should bear in mind that this signifies precisely the same thing that we commonly express by the active verbs 'conceiving' or 'apprehending'. Notice that in each of the above three equivalences, there is no *noun* on the right-hand side corresponding to the noun 'idea' on the left.

When the word 'idea' is taken in this popular sense, no-one can possibly question whether he has ideas. In order to •question, one must •think, and to think is to •have ideas.

Sometimes, in popular language, a man's ideas signify his *opinions*. The 'ideas' of Aristotle signify his opinions. So what I said earlier about the words 'imagine', 'conceive' and 'apprehend' is equally true of 'idea'—namely that it is sometimes used to mean 'judgment'... So we see that 'having ideas', taken in the popular sense of the phrase, has *precisely* the same meaning as 'conceiving', 'imagining' and 'apprehending'—including their ambiguity! I wonder whether it was at all necessary to introduce 'idea' into discourse to signify the operation of conceiving or apprehending. I have shown that we have several other words that mean the same thing—words that began as English or were brought into English long ago and are now naturalized. So why should we adopt a Greek word [$\iota\delta\epsilon\alpha$] in place of these, any more than a French or a German word?...

Secondly, according to the **philosophical** meaning of the word 'idea', what it signifies is not the •act of the mind that we call 'thought' or 'conception' but some •object of thought. According to Locke (whose very frequent use of 'idea' is probably what led to its being adopted into ordinary language), 'Ideas are nothing but the immediate objects of the mind in thinking' (*Essay* I.i.8). But of those objects of thought called 'ideas' different sects of philosophers have given very different accounts. . . .

[In the next paragraph 'principle' means *source*—see explanation on page 2—but not exclusively 'causal source' *in our sense of 'causal'*. The matter from which a thing is made was sometimes called its 'material cause', and its form or design or ground-plan was called its 'formal cause'. Its 'efficient cause' was its *cause* in our sense of that word. There was also a thing's 'final cause', meaning the purpose for which it was made. Consider a coin: its •efficient cause is the stamping of a die on hot metal, its •material cause is the metal it is made of, its •formal cause is its roundness etc., and its •final cause is commerce, the purpose for which it was made.]

The earliest theory of ideas that we have is the one expounded in several of Plato's dialogues. Many ancient and modern writers have credited Plato with having invented it, but it is certain that he took his doctrine of ideas as well as the word 'idea' from the school of Pythagoras. We still have a treatment of 'the soul of the world' by a Pythagorean philosopher, in which we find the substance of Plato's doctrine of ideas. Ideas were held to be eternal, uncreated, and unchanging •forms or •models which God followed in making every species of things that exists, making them out of •matter, which is •also eternal. Those philosophers held that there are three first principles of all things:

An eternal matter, out of which all things were made.

Eternal and immaterial forms or ideas, according to which they were made.

An efficient cause, God, who made them.

For the mind of man to be fit to contemplate these eternal ideas, it must (these philosophers held) be purified in a certain way and weaned from things that can be *sensed*. The eternal ideas are the only object of *science* [meaning: the only object of knowledge that is certain, fixed, disciplined, deductively organized], because the things we can sense are in a perpetual flux, so that there can be no real knowledge regarding them.

The later Platonists diverged from the earlier ones in their view of the eternal ideas. They held that ideas, rather than being a principle •distinct from God, are conceptions of things •in God's understanding, the natures and essences of all things being perfectly known to him from eternity.

Note that the Pythagoreans and all the Platonists regarded the eternal ideas as objects of •science and of abstract thought, not of •sense. In this respect the ancient system of eternal ideas differs from the modern one of Malebranche. He was like other modern philosophers in holding that external things are perceived by us not *immediately* but only through

ideas •acting as intermediaries•. But •his system was like the ancients ones and unlike the other moderns in this•: he held that the •ideas through which we perceive an external world are the •ideas in God's mind. The ideas of all things past, present and future must have been in God's mind from eternity, •Malebranche held•; and God, who is at all times intimately present to our minds, can reveal to *us* as much of *his* ideas as he sees fit, according to certain established laws of Nature. Whatever we perceive of the external world we perceive *in his ideas*, as though in a mirror.

So there are three systems—•early Platonic, later Platonic, and Malebranchian•—which all maintain that the ideas that are the immediate objects of human knowledge are eternal and unchanging, and existed •before the things they represent. Some other systems hold that the ideas that are the immediate objects of all our thoughts come •after and are derived from the things they represent. We shall give some account of these; but as they have grown out of the ancient Aristotelian system I need to start with some account of that.

[We're going to encounter the word 'species', used as a technical term in Aristotelian philosophy having nothing to do with 'species' meaning 'class that is one step down from a genus'. What Reid says about the Aristotelian 'species' will make the technical meaning of the term clear.] Aristotle taught that all the objects of our thought enter at first through our senses; and since our senses can't take in external material objects they take the •'species' of those object, i.e. their •images or their •forms without the matter—compare wax taking the form of the seal without any of its matter. These images or forms that are impressed on the senses are called 'sensible species', and it is only the •sensing part of the mind that engages with them. But various powers of the mind go to work to retain, refine, and spiritualize them so that they can become objects of •memory and •imagination and—eventually—of •pure thought. As

objects of memory and of imagination they are called ‘phantasms’; and when through further refinement and removal of all their particular details they become objects of science, they are called ‘intelligible species’. So that every immediate object, whether of sense, memory, imagination or reasoning must be a phantasm or species in the mind itself. . . .

Why do I give this sketch of •what the Aristotelians maintained regarding the immediate objects of our thoughts? Because the doctrine of modern philosophers concerning ideas is built on •it. Locke, who uses the word ‘idea’ so very often, tells us that what he means by it is the same as is commonly meant by ‘species’ or ‘phantasm’ (*Essay* I.i.8). Gassendi, from whom Locke borrowed more than from any other author, says the same. The words ‘species’ and ‘phantasm’ are terms of art [= ‘technical terms’] in the Aristotelian system, and their meaning has to be learned from that.

Democritus and Epicurus had a position on this subject that was quite like that of the Aristotelians. They held that all bodies continually send out slender films or spectres from their surface—ones that are so extremely fine that they easily penetrate our thick bodies, entering by the organs of sense and stamping their image on the mind. [In Reid’s day the core meaning of ‘image of x’ was ‘likeness of x’.] The ‘sensible species’ of Aristotle were mere forms without matter. The ‘spectres’ of Epicurus were composed of a very rarefied matter.

Modern philosophers, as well as the Aristotelians and Epicureans of old, have believed that external objects *can’t* be the immediate objects of our thought; that there must be some image of them in the mind itself, and that the external thing is seen in •or by means of• its mental image, like seeing something in •or by means of• a mirror. And the name ‘idea’, in its philosophical sense, is given to those •internal and immediate objects of our thoughts. The external thing is

the •remote or mediate object; but the idea or image of that object in the mind is the immediate object, without which we could have no perception, no memory, no conception of the mediate object. •To make quite sure that that is clearly grasped: When I see a tree, my idea or mental image of the tree is the *immediate* object of my perception—immediate because nothing comes between it and my perceiving mind. The tree is the *mediate* or *mediated* object of my perception, because something *does* come between it and my mind, namely its idea or image•.

So here is how things stand. When in ordinary language we speak of having an ‘idea’ of something, all we mean is *thinking* of it. The vulgar allow that this expression implies

- a mind that thinks,
- an act of that mind that we call ‘thinking’, and
- an object about which we think.

But, besides these three, the philosopher believes that there is a fourth, namely

- the idea that is the immediate object •of the thinking•.

The idea is in the mind itself, and can’t exist except in a mind that thinks; but the remote or mediate object may be something external, like the sun or the moon; it may be something past or future; it may be something that never existed. This is the philosophical meaning of the word ‘idea’; and I would point out this *meaning of that word* is built on *a philosophical opinion*. For if philosophers hadn’t believed that there *are* such immediate objects of all our thoughts in the mind, they wouldn’t have used the word ‘idea’ to stand for them!

One last remark about this: although I may have occasion to use the word ‘idea’ in this philosophical sense in explaining the opinions of others, I shall have no occasion to use it in expressing my own, because I believe ‘ideas’ in this sense to be a mere fiction of philosophers. And there isn’t much

use for it in its popular meaning either, because the English words ‘thought’, ‘notion’ and ‘apprehension’ serve as well as the Greek word ‘idea’, and they have the advantage of being less ambiguous than ‘idea’ is. . . .

11. Hume, in speaking of the operations of the mind, uses the word ‘impression’ almost as often as Locke uses ‘idea’. What Locke calls ‘ideas’ Hume divides into two classes; he calls the members of one class ‘impressions’, those of the other ‘ideas’. I shall make some remarks about Hume’s explanation of the word ‘impression’, and then consider its proper meaning in the English language.

Hume writes:

We can divide all the perceptions of the human mind into two classes or species, distinguished by their different degrees of force and liveliness. The less lively and forcible are commonly called ‘thoughts’ or ‘ideas’. The other species lack a name in our language and in most others; so let us use a little freedom and call them ‘impressions’. By the term ‘impressions’, then, I mean *all our more lively perceptions when we hear or see or feel or love or hate or desire or will*. Ideas are *the less lively perceptions that we are conscious of when we reflect on any of those sensations or feelings mentioned above*. (Hume, *Enquiry Concerning Human Understanding*, section 2.)

He explains the term ‘impression’ in the same way in his *Essays* and in his *Treatise of Human Nature*.

. . . . Hume’s terminology in the passage I have quoted is faulty in three ways. (1) He gives the name ‘perception’ to every operation of the mind. Love is a perception, hatred a perception. Desire is a perception, will is a perception; and by the same rule any doubt or question or command is a perception. This is an intolerable misuse of language, and no philosopher is entitled to introduce it.

(2) When Hume says ‘We can divide all the perceptions of the human mind into two classes or species, distinguished by their different degrees of force and vivacity’, his manner of writing is loose and unphilosophical. To differ in •species is one thing, to differ in •degree is another. Things that differ only in degree must be of the same species. It is a maxim of common sense which everyone accepts that *greater* and *less* don’t make a difference of species. If a man has different ‘degrees of force and liveliness’ at different times (e.g. when he is healthy and when he is sick), that doesn’t put him into different •species at those times! It doesn’t stop him from being the very same •individual man at each time. . . . Differences of degree are distinct from differences of •kind or •species, and every thinking person knows how to tell them apart.

(3) Having given the general name ‘perception’ to all the operations of the mind, and separated them into two classes or species according to their degree of force and liveliness, Hume tells us that he gives the name ‘impression’ to all our more lively perceptions, namely ‘when we hear or see or feel or love or hate or desire or will’. There is great confusion in this account of the meaning of the word ‘impression’.

When I see, this is an impression. But why hasn’t Hume told us whether he gives the name ‘impression’ to the •object I see or to the •act of my mind by which I see it? When I see the full moon, the moon is one thing and my perceiving it is another. Which of them does Hume call an ‘impression’? We are left to guess; and the rest of what Hume writes about impressions doesn’t throw *light* on this point.

Everything he says tends to *darken* it, leading us to think that •the moon that I see and •my seeing it are not two things but one and the same thing. . . . When I read all that he has written on this subject I find that he uses word ‘impression’ sometimes to signify an operation of the mind,

and sometimes to signify the object of the operation; but usually it is a vague and unsettled word that signifies both.

. . . Hume's theory of mind required a language differently structured from ordinary language; if his views had been expressed in plain English they would have been too jarring to the common sense of mankind. For example: If you are given something that you highly value, if you see it and handle it and put it in your pocket, this, says Hume, is an •impression. If you only dream that you received such a gift, this is an •idea. And what is the difference between this impression and this idea—between the reality and the dream? They belong to different classes or species, says Hume, and in that we will all agree with him. But he adds that they differ only in their degrees of force and liveliness! Here he slips in a doctrine of his own that contradicts the common sense of mankind. Common sense convinces everyone that a lively dream is no nearer to a reality than a faint one, and that a man could dream that he had all the wealth of Croesus without getting a farthing more in his pocket. It is impossible to construct arguments against such undeniable principles except by confusing the meaning of words. . . . The power of words is so great that if someone can get us into the habit of giving a single name to •two things that are connected, it will be that much easier to get us to believe that they are •one thing.

Now let us consider the proper meaning of 'impression' in English, to see how suitable it is to signify either the operations of the mind or their objects.

When a figure is stamped on a body by pressure, that figure is called an 'impression'—e.g. the impression of a seal on wax, of printing-types on paper. This seems now to be the literal sense of the word, the effect borrowing its name (•'impression') from what caused it (•the **pressure** on the wax or paper). But its meaning gets stretched, by metaphor

or analogy, so that it comes to signify any change produced in a body by the operation of some external cause. Slapping a stone wall makes no impression on it, but shooting a cannon at it can do so. The moon raises a tide in the ocean but makes no impression on rivers and lakes. (Most words have their meanings extended by metaphor or analogy, in some such way as this.)

We also speak of 'making an impression' on the *mind*. 'Advice and criticism make little impression on someone who is confirmed in bad habits.' 'That speech when delivered in one way makes a strong impression on the hearers; delivered in another way it makes no impression at all.' Such uses of 'impression' take the word still further from its literal meaning; but this is authorized by *use*, which is the arbiter of language.

Notice that in such examples, 'making an impression' on a mind always implies some change of •purpose or will, some new •habit produced or some former habit weakened, some •emotion aroused or quietened. When such changes are produced by persuasion, example or any •other• external cause, we say that such causes 'make an impression' on the mind. But when things are seen or heard or taken in without producing any passion or emotion, we say that they 'make no impression'.

In the broadest sense of the word, an 'impression' is a change produced in some •passive thing through the operation of an external cause. When an •active thing produces some change in itself through its own active power, this is never called an 'impression'. It is an act or operation *of* the thing, not an impression *on* it. So we see that to give the name 'impression' to an effect produced in the mind is to imply that the mind *doesn't act* in the production of that effect. If seeing, hearing, desiring, willing are operations of the mind, they can't be impressions. If they are impressions,

they can't be operations of the mind. In the structure of all languages they are considered as acts or operations of the mind itself, and the names given to them—specifically the *active* verbs—imply this. To call them 'impressions', therefore, is to trespass against the structure not of this or that particular language but of all languages.

If the word 'impression' can't be properly used to signify the •operations of the mind, it is at least as improper to signify their •objects. If someone said that the sun is an impression, that the earth and the sea are impressions, wouldn't we conclude that he was just misusing language?

•Before leaving this topic, I want to offer a thought about how •misuse of language relates to •wildly false beliefs. It is commonly believed and taken for granted that as long as a language—*any* language—has enough words, it is perfectly fit to express any opinion, whether true or false. But this isn't absolutely true, for a reason that deserves to be attended to.

The structure and •grammar of all •actual languages are based on certain common •opinions of mankind. For as long as these opinions are common to all men, there will be a great similarity in all languages on our planet. And there is such a similarity; for we find in all languages the same parts of speech,

the distinction between adjectives and nouns,
 the distinction between both of those and verbs,
 the distinction between active and passive verbs,
 the uses of verbs with different tenses, moods, persons
 and numbers.

And there are general rules of grammar, the same in all languages. This similarity of structure in all languages shows that people all hold the opinions on which the structure of language is based.

•Suppose that some nation believed that the things we call 'attributes' might exist without a subject, •i.e. without

there being anything for them to be attributes *of*. Their language wouldn't have a distinction between adjectives and nouns, nor would they have the rule that an adjective has no meaning unless it is joined to a noun. •Or suppose a nation who didn't distinguish acting from being acted on: their language would have no distinction between active and passive verbs. . . .

The structure of all languages is based on common notions, which Hume's philosophy opposes and tries to overturn. No doubt this is what led him to bend the common language into conformity with his principles; but we oughtn't to go along with him in this until we are satisfied that his principles are built on a solid foundation.

12. 'Sensation' is a name that philosophers give to an act of the mind that can be distinguished from all others by this, that it *has no object distinct from the act itself*. Pain of every kind is an unpleasant sensation. When I am in pain I can't say that •the pain I feel is one thing and •my feeling it another. They are one and the same thing, and I can't even *imagine* having the pain but not feeling it, or feeling it without having the pain. When pain isn't felt, it doesn't exist. It is of whatever kind it is felt to be, and can't be more or less intense, longer- or shorter-lasting, than it is felt to be. It can't exist by itself—it has to be had *by* something—and it can't be had by anything except a sentient being. No quality of an inanimate non-sentient being can be anything remotely like it.

All this applies equally to every other •kind of sensation. Some of them are more or less •pleasant, others more or less •unpleasant, and we pay some attention to these because we want to •have or to •avoid them. But many kinds of sensations are neutral—not nice and not nasty—and we pay little attention to them; these have no name in any language.

Most mental operations that have names in ordinary language are inherently •complex, made up of various ingredients, various •simpler acts. These are combined in our constitution; but if we are to have a clear and scientific notion of the complex operation, we must be able to separate the simpler acts from one another by abstraction. People who don't attend to the complex nature of such operations are apt to equate them with some •one of the simple acts of which they are made up, overlooking •the others; and this has caused many disputes and errors concerning the nature of such operations.

Now, such complex operations usually have *sensation* as one ingredient. The perception of an external object is accompanied by a sensation corresponding to the object, and in many languages such sensations are given the same name as the external object that they always accompany. (•For example, 'I have a sensation of green', meaning 'I have a sensation as of seeing something green'.) When two or more things (a) are constantly conjoined in the course of Nature, and (b) have the same name as one another in all languages, it is hard to separate them by abstraction; and that difficulty has led to many errors in the philosophy of the mind. For the avoidance of such errors nothing matters more than to have a clear notion of the simple act of the mind that we call 'sensation', and I have tried to describe that. This will make

it easier to distinguish sensation from every external object that it accompanies, and from every other act of the mind that may occur along with it. It is also important that in philosophical writings the word 'sensation' should be used exclusively to name this simple act of the mind. . . .

I shall add some remarks about the word 'feeling'. This word has two meanings. (a) It signifies the perceptions we have of external objects through the sense of touch. When we speak of 'feeling' a body to be hard or soft, rough or smooth, hot or cold, we are saying that we perceive these things by touch. They are external things, and the act of the mind by which we feel them is easily distinguished from the objects that are felt. (b) The word feeling is •also• used to signify the same thing as 'sensation' signifies, which I have just finished explaining; and in this sense a feeling has no object—•the feeling and •what is felt are one and the same.

Perhaps there is a small difference in meaning between 'feeling' in sense (b) and 'sensation'. We usually use 'sensation' to name the feelings that we have through our external senses and bodily appetites, and all our bodily pains and pleasures. But there are feelings of a nobler nature accompanying our affections, our moral judgments, and judgments in matters of taste, and it would be less appropriate to call these 'sensations'. . . .

Chapter 2: Principles that I take for granted

Just as there are words common to philosophers and to the vulgar, which don't need to be explained, so also there are principles common to both, which don't need to be proved and cannot be directly proved.

Someone who applies himself to any branch of science must have reached an age at which he is intellectually mature, so he must have used his reason and his other mental powers in various ways. He must have formed various opinions and principles by which he conducts himself in the affairs of life. Some of those principles are common to all men, being evident in themselves and so necessary in the conduct of life that a man can't live and act according to the rules of common prudence without them.

Everyone who has ordinary intelligence accepts such principles, and regards anyone who denies or questions them as either mad or lacking in common sense. Suppose someone didn't believe his own eyes and put no trust in his senses, would anyone think it worthwhile to reason gravely with him, trying by argument to convince him of his error? Surely no wise man would. For men can't reason together unless they agree on first principles: it is impossible to reason with someone who has no principles in common with you.

So there are common principles, which are the basis of all reasoning and of all science. They seldom admit of direct proof, and they don't need it. Men don't need to be taught these common principles, because they're things that all normally intelligent men know—or at least readily agree to as soon as they are proposed and understood.

When we have occasion to use such principles in science, we call them 'axioms'. It isn't absolutely necessary to point

out the principles or axioms on which a science is based, but it can be very useful to do so.

Mathematicians, for example: before proving any of the propositions of mathematics they lay down certain axioms, or common principles, on which they build their reasonings. These axioms are truths that everyone knew already—e.g. 'The whole is greater than a part', 'Equal quantities added to equal quantities make equal sums'—but it is worthwhile to set them out explicitly. When we see that the proof of a mathematical proposition assumes nothing but such self-evident axioms, the proposition seems more certain, leaving no room for doubt or dispute.

Every other science will also be found to have a few common principles on which all the reasonings in that science are based. . . . If these were pointed out and considered, we could make a better job of evaluating the conclusions in that science. If the principles are certain, the conclusions soundly inferred from them must be certain. If the principles are only probable, so are the conclusions. If the principles are false, dubious, or obscure, that weakness must infect the superstructure that is built on them.

Sir Isaac Newton, the greatest of natural philosophers, has given an example that is well worth copying, by laying down the common principles or axioms on which reasonings in natural philosophy are built. Before this was done, the reasonings of philosophers in that science were as vague and uncertain as they are in most others. Nothing was fixed; all was dispute and controversy; but Newton's very satisfactory procedure laid a solid foundation for that science, and a grand superstructure of physical theory has been raised on it—one about which there is now no more dispute

or controversy among knowledgeable people than there is about the conclusions of mathematics.

Still, the first principles of natural philosophy are quite different in kind from mathematical axioms, in the following way. They aren't evident in the way that •mathematical axioms are, and they aren't necessary truths like •them. They are the likes of these:

- Similar effects come from the same or similar causes.
- The only causes we should accept for natural effects are ones that are true, and that do account for the effects.

These principles don't have the same *kind* of evidentness as mathematical axioms, but they are nevertheless very evident—enough so that every person with normal intelligence readily accepts them and finds it absolutely necessary to steer by them in his everyday actions and opinions.

I think it may be useful—though this isn't usually done—to declare some of the things that I shall **take for granted** as first principles in my discussion of the mind and its faculties. There is special reason for doing this in the fact that very able men such as Descartes, Malebranche, Arnauld, Locke and many others have given themselves needless trouble by not distinguishing •things that need proof from •things that can perhaps be *illustrated* but can't be *proved* because they are self-evident. When men try to deduce such self-evident principles from others that are even more evident they always fall into inconclusive reasoning; and this has had the result that others, such as Berkeley and Hume, •rightly• thinking that the arguments brought to prove such first principles are weak and inconclusive, have been tempted first to doubt those principles and then to deny them.

It is so tiresome to reason with someone who denies first principles that wise men usually refuse to do so. •But•there may be reason to argue about something that some-

one *thinks* to be a first principle, because• it can happen that what is only a vulgar prejudice is mistaken for a first principle. •And•there may be reason to offer support, of a kind, for a genuine first principle, because• a genuine first principle may, by the enchantment of words, have so much mist thrown around it that its evidentness is hidden, which could make an honest person doubt its truth. Cases of this latter kind may occur more often in this science [here = 'the philosophy of mind'] than in any other; but•they don't bring it a halt, because• there is some remedy for them. When first principles are called into question, there are ways of making their evidentness more apparent; but these 'ways' are very special to this particular problem. The evidentness of the procedures is not demonstrative, but intuitive; the first principles don't need to be *proved*, but merely shown in the right light.

I'll show this more fully in the proper place, in application to the very principles that I now assume. In the meantime, when I propose something as a 'first principle'—as I shall do in the following list of eight of them—you should be on your guard, and should consider whether it really is entitled to that label.

1. **I shall take it for granted** that I *think*, that I *remember*, that I *reason*, and in general that I really perform all the mental acts of which I am conscious.

The operations of our minds are accompanied by *consciousness*, which is our evidence—the only evidence we can have—of their existence. If someone takes it into his head to think or to say that *his consciousness might deceive him*, and to demand proof that it can't do so, I don't know of any proof we can give him. We have to leave him to himself, as someone who denies first principles that are needed for all reasoning. Everyone finds that he *has to believe* what consciousness tells him, and everything that has this testimony should be

taken as a first principle.

2. Just as by •consciousness we know for sure the existence of our •present thoughts and emotions, so by •remembering we know the •past. And when events are recent and the memory of them fresh, the knowledge of them that such clear remembering gives us is second only—in certainty and evidentness—to that of consciousness.

3. We are conscious of many things to which we give little or no attention. We can hardly attend to several things at once, and our attention is usually directed to •whatever it is that we are thinking about, and only rarely to •the thought itself. For example, what an angry man attends to is the wrong that has been done to him or the person who has done it; as for his *anger*—he is conscious of that but he doesn't attend to it. But when we reach years of maturity we have it in our power to pay attention to our own thoughts and feelings and the various operations of our minds. When we focus on these—when they are present or recent and fresh in our memory—this act of the mind is called 'reflection'.

So **I take it for granted** that by attentive reflection a man can have knowledge of the operations of his own mind—a knowledge that is as clear and certain as his knowledge of an external object when it is set before his eyes. . . . A man must be convinced beyond possibility of doubt of everything concerning the operations of his own mind that he clearly and distinctly discerns by attentive reflection.

4. **I take it for granted** that all the thoughts I am conscious of or remember are the thoughts of a single thinking principle, which I call 'myself' or 'my mind'. [See note about 'principle' on page 2.] Everyone has an immediate and irresistible belief not only in his present existence but in his continuous existence and identity as far back as he can remember. If anyone thinks fit to demand a proof •that the thoughts he is successively conscious of belong to *one*

thinking principle—•that he is the same person today as he was yesterday or a year ago—I don't know of any proof that can be given to him. He must be left to himself, either as a lunatic or as someone who denies first principles and •therefore• can't be reasoned with. . . .

5. **I take it for granted** that there are some things that can't exist by themselves and must be *in* something else to which they belong as qualities or attributes.

For example, motion can't exist except in something that is moved. To suppose that there could be motion while no *thing* was moving is a gross and obvious absurdity. Similarly, hardness and softness, sweetness and bitterness, are things that can't exist by themselves; they are qualities of something that is hard or soft, sweet or bitter. The thing, whatever it may be, *of* which they are qualities is called their 'subject'. . . .

Things that can exist by themselves and don't necessarily presuppose the existence of anything else are called *substances*; they are the *subjects* of the qualities or attributes that belong to them.

Anything that we •immediately perceive by our senses or •are conscious of is something that must be in something else as its subject. Thus by my senses I perceive shape, colour, hardness, softness, motion, resistance, and such things; these are qualities, and must necessarily be *in* something that is shaped, coloured, hard or soft, moving, resisting. The name 'body' is applied not to these qualities but to their subject, •i.e. the thing that *has* them•. If anyone should think fit to deny that these things are qualities, or that they require a subject, I leave him to enjoy his opinion as a man who denies first principles and isn't fit to be reasoned with. If he has ordinary intelligence he will find that he can't have a half-hour conversation without saying things that contradict what he says he believes.

Similarly, the things that I'm conscious of—such as thought, reasoning, desire—necessarily presuppose something that thinks, that reasons, that desires. We don't give the name 'mind' to thought, reason or desire, but to the *thing* that thinks, reasons, and desires. So these propositions:

Every act or operation presupposes an agent,

Every quality presupposes a subject,

are things that I don't try to prove, but **take for granted**. Every ordinarily intelligent man sees these immediately and can't have the least doubt about them.

[Then Reid contends that 'the grammar of all languages' supports these principles, mostly repeating things he said a few pages back.]

6. **I take it for granted** that most operations of the mind must have an object distinct from the operation itself. I can't see without seeing *something*. To see without having any object of sight is absurd. I can't remember without remembering something. The remembered thing is past, so it must be distinct from my remembering of it, because that is present. The operations of our minds are expressed in all languages by active transitive verbs, and the sheerly grammatical properties of these require not only a person or agent but also an object of the operation.

Thus the verb 'know' signifies an operation of mind. From the general structure of language, this verb requires a person: I know, you know, he or she knows. But it equally requires a noun in the accusative case signifying the thing that is known; for someone who knows must know *something*. . . .

7. We ought likewise **to take for granted** as first principles things on which there is universal agreement, among the learned and the uneducated, in the different nations and ages of the world. Such widespread consent. . . .ought at least to have great authority unless we can show how it might have been caused by some equally universal prejudice.

Truth is •one, but error is •infinite. Many truths are so obvious to the human faculties that it can be expected that men should universally agree in them.

And that's what we find with regard to many truths, ones that no-one dissents from except perhaps a few sceptical philosophers, and we can fairly suspect *them* of differing from the rest of mankind through pride, obstinacy, or some obsession. When there is such universal agreement on things that aren't deep or intricate, but which lie as it were on the surface, there is the strongest possible presumption that it is a natural result of the human faculties; and it must have great authority with every serious mind that loves truth. . . . You may think: 'It is impossible to collect the opinions of all men about *anything*, so that this maxim can't be of any use.' But in many cases it *is* possible. Consider these:

- There is a material world, and the things we see and handle are real, and not mere illusions and apparitions.
- Everything that begins to exist, and every change that happens in Nature, must have a cause.
- There is a right and a wrong in human conduct—things that in certain circumstances we ought to do, and other things that we ought not to do.

Who can doubt whether mankind have in all ages believed these? The universality of these opinions and of many others that might be named is sufficiently evident from the whole course of men's conduct, as far as our acquaintance reaches, and from the records of history that are transmitted to us.

[Reid now repeats that some 'opinions' are embedded in 'the structure of all languages', which is evidence that everyone has always accepted them. Then:] I shall often have occasion to argue from the sense of mankind as expressed in the structure of language, so it was appropriate to call attention here to arguments drawn from this topic.

8. I need hardly say that **I shall also take for granted** facts that all sober and reasonable men accept on the testimony of their senses, of their memory, or of other people. Although some writers on this subject have questioned the authority of the senses, of memory, and of every human faculty, we find that these people in the conduct of life—in pursuing their ends, or in avoiding dangers—give the same authority to their senses and other faculties as do the rest of us. This entitles us to doubt the sincerity of their professions of scepticism.

This, indeed has always been the fate of the few who have professed scepticism: having done their best to discredit their senses, they find themselves having to trust them after all. Hume has openly admitted this; and it is no less true of those who haven't been as open about it. I never heard that any sceptic ran his head against a post or stepped into

a canal because he didn't believe his eyes.

I agree that in general we ought to be careful not to accept as first principles opinions that aren't entitled to that status. But the risk of that is minimized when the principles are openly declared, and thus exposed to the examination of any who may dispute their authority. I don't claim that things laid down as first principles shouldn't be examined, and that we oughtn't to listen to what may be argued against their being accepted as principles. Let us deal with them as an upright judge does with a witness who has a good character. He accepts the testimony of such a witness while his character is not challenged; but if it can be shown that he has been bribed or is influenced by malice or personal bias, the judge won't believe his testimony and will rightly reject it.

Chapter 3: Hypotheses

Every branch of human knowledge has its own principles, its own foundation and method of reasoning; and if we try to build it on any *other* foundation it will never stand firm and stable. Thus the historian builds on •testimony, and rarely engages in •conjecture. The antiquarian mixes •conjecture with •testimony, and conjecture is often the larger ingredient. The mathematician pays no attention to either testimony or conjecture, and deduces everything by demonstrative reasoning from his definitions and axioms. In fact, anything that is built on conjecture shouldn't be called a 'science', because conjecture can generate *opinion* but it can't produce

knowledge, and science properly so-called should consist entirely of knowledge. Natural philosophy must be built on the phenomena of the material system, discovered by observation and experiment.

When men first began to philosophise—i.e. to take their thoughts beyond the objects of sense and to enquire into the •causes of things and the secret •operations of Nature—it was very natural for them to engage in *conjecture*; and it wasn't to be expected that they would soon discover the right scientific way of proceeding in philosophical investigations. And so it is that the most ancient systems in every branch

of philosophy turn out to be nothing but the *conjectures* of men who were famous for their wisdom and whose fame gave authority to their opinions. Thus, in ancient times wise men *conjectured* that this earth is a vast plain surrounded by a boundless ocean, and that the sun, moon, and stars emerge from this ocean at their rising and plunge back into it at their setting.

With regard to the mind, primitive men are apt to conjecture that the source of life in a man is his breath; because the most obvious difference between a living man and a dead one is that one breathes and the other doesn't. That is why in ancient languages the word that stands for the soul is one that strictly means 'breath' or 'air'.

As men come to know more, their first conjectures seem silly and childish and are replaced by others that square better with later observations and discoveries. Thus one system of philosophy takes over from another, without any claim to being better in any way except that it is a more ingenious system of conjectures that accounts better for common appearances.

Skipping over many ancient systems of this kind, we come to Descartes, about the middle of the last century. He was dissatisfied with the 'prime matter', the 'substantial forms' and the 'occult qualities' of the Aristotelians, and boldly conjectured that

the planets in the solar system are carried round by a whirlpool of subtle [= 'very finely divided, fluid'] matter, just as straws and chaff are carried round in a tub of water.

He had a conjecture about the soul, namely:

The soul is seated in a small gland in the brain, called the pineal gland. It sits there, as though in a reception room, and receives information about everything that affects the senses, brought by a subtle fluid—called

the 'animal spirits'—contained in the nerves. And the soul sends these animal spirits as its messengers to get the various muscles of the body moving, when there is a call for it.

By conjectures like these Descartes could account for every phenomenon in Nature, doing this so plausibly that for more than half a century a great part of the learned world was satisfied with his account.

Such conjectures in philosophical [here = 'scientific'] matters are generally known as 'hypotheses' or 'theories'. And it has been considered the highest attainment of a philosopher to invent a hypothesis, based on slight probabilities, which accounts for many natural phenomena. If the hypothesis hangs together well, is decorated by a lively imagination, and serves to account for familiar appearances, many people think that it has •all it needs to deserve that we should believe it, and •all that ought to be required in a philosophical system.

Highly talented men are given to inventing hypotheses, and others are given to accepting them as the utmost that the human faculties can reach in philosophy. These two facts make it enormously important for the progress of real knowledge that we should have a clear and distinct understanding of •the nature of hypotheses in philosophy, and of •the respect that should •as well as the respect that *shouldn't* be paid to them.

Some conjectures may have a considerable degree of probability, but obviously it is in the nature of a conjecture to be uncertain. In every case the assent should be proportioned to •the strength of• the evidence, because it is a clear misuse of our understanding to believe firmly something that has only a low probability. Well, now, we can quite often form very probable conjectures concerning the •works of men, but any conjecture we can form concerning the •works of

God has as little probability as the conjectures of *a child* concerning the works of a grown man.

God's wisdom exceeds that of the wisest man more than that man's wisdom exceeds that of a child. Suppose a child conjectures •how an army should be drawn up on the day of battle, •how a city should be fortified, •how a state should be governed—what are his chances of guessing right? *That* is how little chance a man—even the wisest man—has of being right when he claims to conjecture how •the planets move in their courses, •how the tides rise and fall, and •how our minds act on our bodies.

Suppose that a thousand of the best minds that the world ever produced, having no previous knowledge of anatomy, were to sit down and try to work out •how and •by what internal organs the various functions of the human body are carried on—how blood is made to circulate and the limbs to move. In a thousand years they wouldn't arrive at anything like the truth!

Of all the discoveries that have been made concerning the inner structure of the human body, *not one* was arrived at through conjecture. Precise observations of anatomists have brought to light countless devices of Nature in the make-up of this machine of the human body—devices that we can't help admiring as excellently adapted to their various purposes. But. . .no-one ever dreamed of them before they were *discovered*. In contrast with this, countless *conjectures* formed down the centuries concerning the structure of the body have been refuted by observation, and none has ever been confirmed.

What I have just said about the internal structure of the human body holds equally for every other part of the works of God about which any real discovery has been made. Such discoveries •have always been made by patient observation, by precise experiments, or by conclusions drawn through

strict reasoning from observations and experiments; and they •have always tended to refute and not to confirm the theories and hypotheses that ingenious men had invented.

This fact has been confirmed by the history of philosophy in all past ages, so it ought to have taught men long ago to regard hypotheses in every branch of philosophy with justified contempt, and to give up any hope of advancing real knowledge in that way. The Indian philosopher who didn't know how the earth was supported invented the hypothesis of a huge elephant, which he then supposed to stand on the back of a huge tortoise. [This refers to Locke's *Essay* II.xxiii.2.] Ridiculous as this hypothesis seems to us, it might seem very reasonable to other Indians who didn't know any more than that one did. And that will be the fate of *all* hypotheses invented by men to account for the works of God: they may have a decent and plausible appearance to those who don't know any more than their inventors do, but when men come to be more enlightened those hypotheses will always appear ridiculous and childish. . . .

The finest productions of human art fall far short of the lowest works of Nature. The most careful artist can't make a feather or a tree-leaf. •Human workmanship will never be in any way comparable with •divine. Well, conjectures and hypotheses are man's work, and must reflect the capacity and skill of their inventors; so they will always be very unlike the works of God which it is the business of philosophy to discover.

For centuries the world has been duped by hypotheses in every branch of philosophy; so it's of the utmost importance, for anyone who wants to make any progress in real knowledge, to brush hypotheses aside as the dreams of vain and fanciful men whose pride makes them think they can unfold the mysteries of Nature by the force of their thought. A learned man in a letter to Descartes wrote something that

very much deserved the attention of that philosopher and of all who come after him:

When someone tries to investigate Nature while sitting in his study and consulting only his books, he may indeed tell how *he* would have made the world if God had given him the job; that is, he may describe chimeras that correspond to the weakness of *his* mind just as well as the admirable beauty of the universe corresponds with the infinite perfection of God; but, lacking a truly divine intellect, he can never form in his own mind an idea like the one God had in creating things. (Descartes, *Passions*, Preface)

Let us, therefore, adopt this as a basic principle in our enquiries into the structure and workings of the mind: *No attention should be paid to the conjectures or hypotheses of philosophers, however ancient and however widely accepted.* Let us accustom ourselves to test every opinion by the touchstone of fact and experience. Anything that can fairly be deduced from facts that have been duly observed or sufficiently testified to is genuine and pure; it is the voice of God, and not a fiction of human imagination.

The first rule of philosophising laid down by the great Newton is this:

The only causes of natural effects that should be admitted are ones that are both true and sufficient for explaining the phenomena.

This is a golden rule; it is the true and proper test for

distinguishing what is sound and solid in philosophy from what is hollow and vain.

So when a philosopher claims to show us the cause of some natural effect, whether relating to matter or to mind, we should first ask whether there is sufficient evidence that the cause he assigns really does exist. If there isn't, send it packing as a fiction that oughtn't to have any place in genuine philosophy. If the cause assigned really does exist, ask next whether the effect it is supposed to explain really does follow necessarily from it. Unless it satisfies these two conditions, it is good for nothing.

When Newton had shown the wonderful effects of gravitation in our planetary system, he must have felt a strong desire to know its cause. He could have invented a hypothesis for this purpose, as many had done before him. But his philosophy wasn't like that. Listen to what he says:

I have not yet been able to deduce from phenomena the reason for the properties of gravity, and I don't make up hypotheses. For whatever is not deduced from the phenomena must be called a 'hypothesis'; and hypotheses, whether metaphysical or physical—whether based on occult qualities or on mechanical ones—have no place in experimental philosophy.

[In this, 'make up' replaces Reid's 'feign'. In the Latin (which he also gives) the relevant word is *finigo*, which is the source of 'feign' and also of 'fiction'. Newton was saying in effect 'I don't fake hypotheses'.]

Chapter 4: Analogy

It is natural for men to form opinions about less well-known things on the basis of some similarity they see (or think they see) between those things and others that are more familiar or better known. In many cases we have no better way than this of reaching any opinions. And when the things that are compared really are very similar in their nature, and there's reason to think that they are subject to the same laws, such conclusions drawn from analogy can have a quite high probability .

For example, we can see a very great similarity between our earth and the other planets—Saturn, Jupiter, Mars, Venus, and Mercury. •They all revolve around the sun as the earth does, although at different distances and in different periods. •They borrow all their light from the sun as the earth does. •Some of them are known to revolve round their axis like the earth, so that they must have a succession of day and night as the earth does. •Some of them have moons that give them light in the absence of the sun, as our moon does to us. •The motions of all of them fall under the same law of gravitation as the earth does. From all this similarity, it isn't unreasonable to think that those planets may, like our earth, be the homes of various orders of living creatures. There is some probability in this conclusion from analogy.

In medicine, physicians have to be guided by analogy in most of their prescriptions. The constitution of one human body is so like that of another that it's reasonable to think that what causes health or sickness in one may have the same effect on another. And this is generally found true, though there are exceptions.

In politics we reason mostly from analogy. The constitution of human nature is so similar in different societies

or commonwealths that the causes of peace and war, of tranquillity and revolt, of riches and poverty, of improvement and deterioration, are much the same in all of them.

So analogical reasoning should not be rejected across the board. It can confer more or less probability depending on whether the things that are compared are more or less similar in their nature. But this kind of reasoning can provide only *probability*, at best; so unless great caution is used we are apt to be led into error by it, for men are naturally disposed to think that things are more alike that they really are.

Here is one example. Anatomists in ancient times seldom dissected human bodies, but often dissected the bodies of quadrupeds whose internal structure was thought to come closest to that of the human body. Modern anatomists have discovered many mistakes that the ancients were led into by thinking there was more anatomical similarity between men and some beasts than there really is. From this and many other examples that might be given, we can see that conclusions built on analogy stand on a slippery foundation, and that we ought never to rely on evidence of this kind in cases where we can have more direct evidence.

I know no author who has made a sounder and more satisfactory use of this kind of reasoning than Bishop Butler in his *The Analogy of Religion, Natural and Revealed, to the Constitution and Course of Nature*. In that excellent work the author doesn't use analogy as evidence on which to base any of the truths of religion. He uses it only to answer objections against those truths. An objection against the truths of religion can't have any weight if it holds just as strongly against what we *know to be true* in the course of Nature.

Thus, analogical reasoning can be extremely useful in answering objections against truths that have other evidence to support them. And it can also confer large or small probabilities in cases where we can't find other evidence. But *all* arguments from analogy are weak to the extent that the compared things are *dissimilar*; so they must be weakest of all when we compare body with mind, because no two things in Nature are more unlike than they are.

On no other subject have men been so prone to form their notions by analogies of this kind as they are in what concerns *the mind*. Our senses acquaint us with material things early in our lives, and we grow up in constant familiarity with them. This makes us apt to measure all things by them, and to ascribe the qualities of material things to things that are nothing like them. That is why mankind have always been so prone to think of the mind itself as some subtle kind of matter; and to ascribe human shape and human organs not only to angels but even to God. We are conscious of the operations of our own minds when they are going on, and we *can* attend to them so as to form a clear notion of them; but this is hard work for men whose attention is constantly being claimed by external objects. So hard that we give our mental operations names taken from things that are familiar and are thought to have some similarity to them; and the *notions* we form of them are just as analogical as the *names* we give them. Almost all the words by which we express the operations of the mind are borrowed from material objects. [In the following list, the words on the left are given by Reid; the explanations on the right are added.]

'understand'—from 'under' and 'stand'

'conceive'—from Latin *concipere* = hold in the hand

'imagine'—from Latin *imago* = portrait, painting, etc.

'comprehend'—from Latin *comprehendere* = 'hold in the hand'

'deliberate'—from Latin *librare* = weigh

'infer'—from Latin *inferre* = 'bring in'

and many others are words of this kind; so that when it comes to the operations of our minds, the very language of mankind is analogical. Because bodies are affected only by contact and pressure, we are apt to think that whatever is an immediate object of thought, and affects the mind, must be in contact with it and make some impression on it. When we *imagine* something, the very word leads us to think that there must be in the mind some *image*—some representation, like a portrait—of the thing that is imagined. . . .

Analogical reasoning based on a supposed similarity of mind to body produces more errors about the operations of our minds than does anything else. Here is another example of it.

When a man is urged by contrary motives, some of them inciting him to perform a certain action and others inciting him not to, he *thinks about whether* to do it—and eventually he either decides to do it or decides not to. These opposing motives are compared to the weights in the opposite scales of a balance; and this may be the most striking analogy there is between body and mind. That is why phrases like 'weighing motives' and 'deliberating on actions' occur in all languages.

Some philosophers draw very important conclusions from this analogy. They say:

- As a balance *can't* slope either way when the opposite weights are equal, so a man *can't* decide what to do if the motives on the two sides are equal. And

- As a balance *has to* go down on the side with most weight, so a man *has to* decide to perform the action for which the motive is strongest.

On this basis, some of the schoolmen maintained that if a hungry ass were placed between two equally inviting bundles

of hay, the beast would have to stand still and starve to death, being unable to turn to either bale because there were equal motives to both! This is an example of the kind of analogical reasoning that I think should never be trusted; for the analogy between a balance and a man who is deliberating, though one of the strongest that can be found between matter

and mind, is too weak to support any argument. A piece of dead inactive matter is *very* unlike an active thinking being, and because one would remain at rest in a certain case it doesn't follow that the other would be inactive in a *somewhat* similar case. . . .

Chapter 5: The right way to get knowledge of the operations of the mind

'If we ought to ignore hypotheses, and to be very suspicious of analogical reasoning, from what source can we get knowledge of the mind and its faculties?' I answer that the main source for this branch of knowledge is *careful reflection on the operations of our own minds*. Before coming to a fuller treatment of this source, I shall offer some remarks about two other sources of knowledge about the mind that may be subservient to it.

1. The first is *attention to the structure of language*. Men's language expresses their thoughts and the various operations of their minds. The various operations of the understanding, will, and passions, which are common to mankind, have in all languages corresponding forms of speech, which are the signs of them and by which they are expressed. By paying due attention to these signs we may in many cases get considerable light on the things signified by them.

All languages have modes of speech by which men
say what they think,
give their testimony,
accept or refuse,

ask for information or advice,
command, threaten, or implore,
give their word in promises or contracts.

If such operations weren't common to all mankind we wouldn't find in all languages forms of speech by which they are expressed.

Of course all languages have imperfections; they can never be adequate to all the varieties of human thought; so it can happen that two things are really distinct in their nature, and can be so distinguished by the human mind, though they aren't distinguished in common language. The most we can expect to find in the structure of languages are the distinctions that all mankind find a need for in the common business of life. [Reid goes on to emphasize that this is about what's found in *all* languages, not any one particular language. Then:]

I have given some examples of this, and now add one more. All languages have plural forms of many of their nouns; from which we can infer that all men have notions not only of individual things but also of attributes, i.e. things that are common to many individuals. . . .

2. Another source of information about the human mind is a due *attention to human actions and conduct*. Men's actions are •effects; their opinions, emotions and feelings are the •causes of those effects; and it is often all right for us to form a judgment about a cause from its effect.

The behaviour of parents towards their children gives sufficient evidence, even to those who never had children, that parental affection is common to mankind. It is easy to see from the general conduct of men what sorts of things they naturally look up to, admire, love, approve of, resent. . . and so on through all their natural dispositions. For example, the conduct of men in all ages makes it obvious that man is by his nature a social animal—that he loves to associate with other members of his species, to converse and exchange favours with them.

Not only men's actions but even their opinions can sometimes throw light on the structure of the human mind. Men's opinions of men can be seen as the effects of their •intellectual powers, just as their actions are the effects of their •active principles. [See page 2 note on 'principle'.] Even the prejudices and errors of mankind in general must have some equally general cause, the discovery of which will throw some light on the structure of the human understanding.

This, I think, is what the history of philosophy is chiefly useful for. When we trace the history of the various philosophical opinions that have sprung up among thinking men, we are led into a labyrinth of fanciful opinions, contradictions, and absurdities, mixed in with some truths; but sometimes we can find a thread to lead us through the various windings of this labyrinth. We may find the point of view from which the author of the system saw things; and this will often give a •consistency to things that looked •contradictory, and some degree of •probability to things that appeared most •fanciful.

The history of philosophy, considered as a map of the intellectual operations of men of genius, will always be interesting and may sometimes give us views of the human understanding which couldn't easily be had any other way.

3. I return now to what I have said is the main source of information about the human mind, namely attentive reflection on the operations of our own minds.

Locke gave the label 'ideas of reflection' to all the notions we have of the mind and of its operations. A man can have notions of remembering, judgment, will and desire that are as clear as his notions of any object whatever. Such notions, as Locke rightly says, are acquired by the power of reflection. But what *is* this power of reflection? He answers that it is 'the power by which the mind turns its view inward, and observes its own actions and operations' (*Essay* I.i.8). He observes elsewhere that 'the •understanding is like the •eye in this: while it makes us see and perceive all other things, it pays no attention to itself; and we need skill and hard work to set it at a distance and make it its own object' (I.i.1). . . .

This power of the understanding to direct itself towards its own operations, to attend to them and examine them on all sides, is the power of reflection. It is the only way for you to have any clear notion of the powers of your own mind or of anyone else's.

This •reflection ought to be distinguished from •consciousness, though they are often run together, even by Locke. All men are •conscious of the operations of their own minds at all times while they are awake; but there are few who •reflect on them or make them objects of thought.

Throughout our pre-adult lives we are engaged solely with external objects. The mind is •conscious of its operations through those years and beyond, but it doesn't •attend to them; its attention is directed solely onto the external objects that those operations are concerned with. An angry man is

conscious of his anger, but his *attention* is directed towards the person who offended him and the circumstances of the offence, and not at all towards the passion of anger itself.

I think this is enough to show the difference between •consciousness of the operations of our minds and •reflection on them; and to show that we can have the •former without any degree of the •latter. The difference between consciousness and reflection is like the difference between •a superficial view of an object that presents itself to the eye when we are focussing on something else and •the attentive examination that we give to an object when we are wholly engaged in surveying *it*. Attention is voluntary: it requires active exertion to start attending to something, and to continue doing so; and we can go on attending for as long as we choose. But consciousness is involuntary, and it doesn't stay steady through a period of time, but changes with every •change in our •thought.

The power to reflect on the operations of their own minds doesn't appear at all in children; to become capable of it they

must reach a certain level of intellectual maturity. Of all the powers of the human mind, this one seems to be the last to come into play. Most men seem to go on being incapable of acquiring it in any considerable degree. Like all our other powers, it is greatly improved by being used; and until a man gets the •*habit* of attending to the operations of his own mind, he can never have clear notions of them, or form any steady opinion concerning them. He has to borrow his opinions from others, his notions will be muddled and unclear, and he can easily be led to swallow very gross absurdities. It takes time and hard work to acquire this •*habit*, even for those who begin it early, and whose natural talents are pretty well fitted for it; but it will become easier every day, and the advantage of having this habit is great. It will enable you to think with precision and accuracy about every subject, especially the more abstract subjects. You'll be able to judge for yourself on many important points, while others must blindly follow a leader.

Chapter 6: The difficulty of attending to the operations of our own minds

Anyone wanting to make progress in the science of the mind needs to understand the difficulty of attending to our own mental operations, and to have an accurate idea of *how* difficult this is. That is to protect him against •expecting to succeed without taking trouble and working hard, and against •becoming discouraged by the thought that the obstacles to success are insuperable, and that no certain results can be achieved in this science. So I shall do my best

to point out the causes of this difficulty, and the effects that have arisen from it, so that we can form a true judgment of both. On the causes of the difficulty I have five points to make.

1. It is hard to give due attention to the operations of the mind because there are so many of them and they whip by so quickly. It's well known that if very many objects are presented in quick succession, even to the eye, our

memory and imagination run them together. We retain a confused notion of the whole, and a more confused one of the individual parts, especially if they are objects to which we have never before given particular attention. No succession can be faster than that of thought. While we are awake the mind is busy, continually passing from one thought to another and from one operation to another. The scene is constantly shifting. You'll be aware of this if you try for just one minute to keep the same thought in your mind, not varying it or adding to it. You will find it impossible to keep the scene of your imagination fixed. Other objects will force their way in, and all you can do is to reject these intruders as quickly as possible, and return to your principal object.

2. In this exercise we go *against* habits that we acquired long ago and that have been reinforced by long unvaried practice. From infancy we have been accustomed to attending to objects of sense and *only* to them; and when confirmed habit has given sensible objects such a strong hold on our attention, it isn't easy to make them let go. . . .

3. The operations of the mind, from their very nature, lead the mind to give its attention to something else. I'll show later that our sensations •are *natural signs*, which •turn our attention to the things they signify; doing this so thoroughly that most of our sensations—and the most frequent and familiar of them—have no name in any language. In perception, memory, judgment, imagination, and reasoning there is an object distinct from the operation itself; and, while we are led by a strong impulse to attend to the object, the operation escapes our attention. Our emotions, affections, and all our active powers also have objects that engross our attention, diverting it from the emotion itself.

4. To this we may add a correct point of Hume's (*Treatise* II.i.4), namely: When the mind is agitated by some emotion, as soon as we turn our attention from the object to the

emotion itself, the emotion dies down or vanishes, and in that way escapes our scrutiny. This indeed is common to almost all operations of the mind: while an operation is going on, we are conscious of it but are attending not to it but to its object; and when the mind is drawn away from the object to attend to its own operation, the operation stops and so escapes our notice.

5. . . .In order to discover the truth concerning the operations of the mind, it isn't enough to give attention to them; one must also be able •to distinguish accurately their tiny differences, •to resolve and analyse complex operations into their simple ingredients, to •sort out the ambiguity of words (there's more ambiguity in this science than in any other) and give the words the same precision that mathematical terms have. In fact,

- the same precision in the use of words,
- the same cool attention to tiny differences between things,
- the same talent for abstraction and analysing,

that equips a man for the study of mathematics is equally necessary in the science of the mind. The big difference between these two sciences is that the objects of mathematics are external to the mind, so that it's much easier to attend to them and hold them steady in the imagination.

•So much for causes of the difficulty. Now for some of its effects. . . . Most branches of science have been highly cultivated, either in ancient or in modern times, and brought to a considerable degree of perfection. But *this* one remains to this day in a very low state—still in its infancy, so to speak.

Every science invented by men must •start, and then •develop; and from various causes it can happen that one science reaches considerable maturity while another is still in its infancy. What shows that a science is mature is this:

It contains a system of principles, and conclusions drawn from them, that are so firmly established that among thinking and intelligent people there remains no doubt or dispute about them; so that those who come later can raise the superstructure higher but can't ever overturn what is already built so as to begin on a new foundation.

Geometry seems to have been in its infancy at about the time of Thales and Pythagoras, because they are credited with having invented many of the elementary propositions on which the whole science is built. Euclid's *Elements*, written a good while after Pythagoras, presents a system of geometry that deserves the name of 'science'; and though great additions were made by Apollonius, Archimedes, Pappus and others among the ancients, and still greater ones by the moderns, yet what was laid down in Euclid's *Elements* has never been set aside. It remains as the firm foundation of all future superstructures in that science.

Natural philosophy remained in its infant state for nearly two thousand years after geometry had acquired its adult shape. For natural philosophy seems not to have been built on a stable foundation or carried to any degree of maturity until the last century, when Sir Isaac Newton ·in 1687· had the merit of getting this branch of philosophy into the ·adult· shape of a *science*. (Until then the system of Descartes dominated the most enlightened part of Europe, but it was all *hypothesis*.) It needn't surprise us if the philosophy of the human mind should be a century or two later in being brought to maturity.

Several modern writers have contributed greatly to natural philosophy, ·bringing it nearer to qualifying as a science·. For it to be entitled to the name 'science' perhaps it doesn't now need much more than to be cleansed of certain hypotheses that have deceived some of the most acute writers on

this subject, leading them into downright scepticism.

What the ancients presented us with concerning the mind and its operations was almost entirely taken not from careful reflection but from some conceived analogy between body and mind. And although the modern authors I named earlier have given more attention to the operations of their own minds, and in that way have made important discoveries, they have also retained some of the ancient analogical notions; this has made their discoveries less useful than they might have been, and has led to scepticism.

An error in the foundation of a building can weaken the whole structure, and the further the building is carried on the more apparent and the more threatening the fundamental error becomes. As in building, so in science. Something like this seems to have happened in our systems concerning the mind. The additions that have been made to them by modern discoveries, though very important in themselves, have thrown darkness and obscurity on the whole, and have led men to scepticism rather than to knowledge. This must come from some fundamental errors that haven't been observed; it is to be hoped that when *these* are corrected, the ·modern· improvements will have their proper effect.

I shall note just one other effect of the difficulty of investigating the powers of the mind. It is the fact that there is no other department of human knowledge in which able authors have been so apt to blunder into strange paradoxes and even into gross absurdities. In modern writings about the mind we find:

- philosophers maintaining that there is no heat in the fire, no colour in the rainbow;
- the most serious philosophers, from Descartes down to Berkeley, rounding up arguments to prove the existence of a material world, and not finding any that will bear examination;

- Berkeley and Hume, the acutest metaphysicians of the age, maintaining that there is no such thing as matter in the universe—that sun, moon, and stars, the earth we inhabit, our own bodies and those of our friends, are only ideas in our minds and have no existence except in thought;
- Hume maintaining that •there is neither body *nor mind*—nothing in Nature except ideas and impressions, without any substance on which they are impressed;

- Hume maintaining that there is no certainty, indeed no probability, even in mathematical axioms.

When we consider such wild claims by many of the ablest writers, we may suspect that the whole thing is only a dream—a tangle of mental cobwebs. But remember that the more tightly and cleverly men reason from false principles, the more absurdities they will be led into. We can perhaps forgive the absurdities because of their service in bringing to light the false principles that generated them.

Chapter 7: Classifying the powers of the mind

The powers of the mind are so many, so various, and so interlinked and complicated in most of its operations, that no system of classification of them has ever been proposed that isn't open to considerable objections. So I shall start with the general division that is the most common, into •powers of the understanding and •powers of the will.

Under 'the will' I bring our active powers, and all that lead to action or influence the mind to act—such as appetites, emotions, affections. Under 'the understanding' come our contemplative powers, by which we perceive objects, conceive or remember them, analyse or compound them, we judge and reason concerning them.

This general will/understanding dichotomy can help us to proceed more methodically in our subject, but we shouldn't take it to imply that the operations that are ascribed to the understanding never involve any exercise of will, any activity. I don't think there is *any* operation of the understanding in

which the mind isn't to some extent active. We have some command over our thoughts, and out of the many objects that present themselves to our senses, our memory, or our imagination, we can choose which ones to attend to. We can choose whether to survey an object on this side or that, superficially or carefully, for a longer or a shorter time; so that our •contemplative powers are under the guidance and direction of the •active powers; and the •former never pursue their object without being led and directed, egged on or held back, by the •latter: And because the understanding is always to some extent directed by the will, mankind have ascribed some degree of activity to the mind in its intellectual operations, as well as in those that belong to the will, and have expressed them by active verbs such as 'see', 'hear', 'judge', 'reason' and the like.

And the will/understanding dichotomy shouldn't be taken to imply that the operations ascribed to the will never involve

the understanding. For in fact, just as the mind exerts some degree of activity even in the operations of understanding, so it is certain that there can be *no* act of will that isn't accompanied by some act of understanding: the will must have an object, and that object must be apprehended or conceived in the understanding.

So we need to remember that in most if not all operations of the mind both faculties work together, and we classify an operation under whichever faculty—whichever side of the will/understanding dichotomy—plays the greater part in it.

The intellectual powers are commonly divided into •simple apprehension, •judgment, and •reasoning. As this division has in its favour the authority of antiquity and of very general acceptance, I oughtn't to set it aside without giving any reason. So I shall briefly explain it and then give my reasons for adopting a different classification.

You can't •judge concerning something unless you •apprehend it; and you can't •reason concerning it unless you •apprehend it *and* make •judgments about it. So these three operations are not independent of one another. The second includes the first, and the third includes both the first and second; but the first can be exercised without either of the other two. That's why it is called '*simple* apprehension'—i.e. apprehension not accompanied by any judgment about the object that is apprehended.

This **simple apprehension** of an object is, in common language, called 'having a notion' or '. . . a conception' of the object, and recent authors called it 'having an idea' of it. It is expressed by a word ('man') or by a part of a proposition that doesn't have the complex structure of a complete sentence ('a man of fortune'). Such words ·or phrases·, taken by themselves, signify simple apprehensions. They don't affirm or deny; they imply no judgment or opinion about the thing they signify; so they can't be true or false.

The second operation in this trichotomy is **judgment**. Philosophers have said that in a judgment two objects of thought must be brought together, and some agreement or disagreement—or more generally some *relation*—discerned between them; and that this results in an opinion or belief concerning the relation that we discern. This operation is expressed in speech by a proposition in which some relation between the two things is affirmed or denied—as in saying 'All men are fallible'.

Truth and falsehood are qualities that belong to judgment only—or to propositions in which judgment is expressed. Every judgment, every opinion, and every proposition is either true or false. But words that don't affirm or deny anything can't be either true or false, and that holds also for the simple apprehensions that such words signify.

The third operation is **reasoning**, in which we draw a conclusion from two or more judgments.

[In this next paragraph, Reid will use 'compare' in a sense that it has almost lost today, a sense in which to compare two things is just to bring them together in a single thought in order to see how they relate to one another. The relation doesn't have to be similarity or dissimilarity.] This classification of our intellectual powers corresponds perfectly with the account that philosophers commonly give of the successive steps through which the mind acquires knowledge, namely: (1) By the senses or by other means the mind is provided with various simple apprehensions, notions or ideas. These are the materials that Nature gives it to work with; and from the simple ideas it gets from Nature it forms various other more complex ones. (2) By comparing its ideas and perceiving their agreements and disagreements, it forms its judgments. (3) From two or more judgments it draws conclusions by reasoning.

If all our knowledge is acquired through a procedure of this kind, the above threefold classification of the powers of

understanding. . . . is the most natural and the most proper that can be devised. This •theory about the acquisition of knowledge and this •classification are so closely connected that it's hard to judge which of them has given rise to the other; certainly they must stand or fall together. But if some of our knowledge is not acquired through a process of that kind—if there are routes to knowledge other than comparing our ideas and perceiving their agreements and disagreements—there may very well be operations of the understanding that can't be fitted into any of the three categories that I have presented.

Let us consider some of the most familiar operations of our minds, and see to which of the three they belong. I begin with **consciousness**. I know *that I think*, and this is the most certain bit of knowledge that I have. Am I given this certain knowledge by •simple apprehension? Surely not! Simple apprehension doesn't affirm or deny. And you won't say that •reasoning lets me know that I think. So it must be by •judgment, i.e. (according to the above account of judgment) perceiving the agreement between two ideas. *What* two ideas? They'll have to be the idea of myself and the idea of thought, for 'I' and 'think' are the terms of the proposition 'I think'. According to this account then, I first have the idea of myself and the idea of thought, and then by considering these two ideas together I perceive that I think.

I ask you: Is *that* how you come to be convinced that you think? It seems to me obvious that my conviction that I think isn't acquired in this way; and from that I infer that either •consciousness is not judgment or •judgment is not rightly defined as 'the perception of some agreement or disagreement between two ideas'.

The perception of an object by my **senses** is another operation of the understanding. Is it simple apprehension or judgment or reasoning? It is not •simple apprehension,

because I am wholly convinced that the object exists—as convinced as if this had been demonstrated—which implies that sense-perception involves something in the nature of belief, which simple apprehension never does. It isn't •judgment either, if 'judgment' means 'bringing ideas together and perceiving their agreements or disagreements'. And it isn't •reasoning, because there are creatures that can't reason but can perceive.

I find the same difficulty in classifying **memory** in terms of the trichotomy.

There is no more fruitful source of •error in this branch of philosophy than *classifications that are wrongly thought to be complete*. To make a perfect job of dividing up any class of things, one needs to command a view of the whole class all at once; very often our minds are not capacious enough for this; and in those cases something that wasn't in the philosopher's view when he made his division is omitted from his classificatory scheme. Such an omitted item gets into the classificatory scheme, which involves falsifying its real nature—hence, •error. This has been such a common fault of philosophers that anyone wanting to avoid error ought to be suspicious of classificatory schemes—even ones of long standing and great authority—especially ones based on some theory that is open to question. In a subject that is imperfectly known we ought not to aim at perfectly complete classifications; rather, we should leave room for whatever additions or alterations may be suggested later on when we get a better view of the whole subject.

So I shan't try to enumerate *all* the powers of the human understanding. I merely list the ones that I propose to explain, namely:

1. The powers we have by means of our external senses.
2. Memory.
3. Conception.
4. The power to resolve and analyse complex objects, and to make complexes out of simpler objects.
5. Judging.
6. Reasoning.

7. Taste.
8. Moral Perception.
Consciousness.

[Items 1-7 are the topics of Essays 2-8, in the same order. At the end of the Essay (8) on topic 7, Reid says that he hasn't discussed topic 8, moral perception, because it belongs under man's active rather than his intellectual powers; and that Consciousness (the item he doesn't number) is discussed fully enough in Essay 6, chapter 5, item (1).]

Chapter 8: Social operations of mind

There is another way of dividing up the powers of the mind that gets overlooked by writers on this subject, but ought not to be because it has a real basis in Nature. Some operations of our minds are in their very nature *social*, while others are *solitary*.

By 'social operations' I mean ones that necessarily presuppose communication with some other thinking being. A man could understand and will, apprehend and judge and reason, even if he knew of no thinking being in the universe except himself. But when he

- asks for or receives information,
- offers or receives testimony,
- requests or gets a favour,
- gives a command to his servant or gets one from a superior,
- gives his word in a promise or contract,

these are acts of social interaction between thinking beings, and can't occur in solitude. They presuppose understanding

and will, but they also presuppose something additional to both of those, namely *society with other thinking beings*. These operations can be called 'intellectual'—and so fall within the scope of this book—because only intellectual [= 'thinking'] beings can perform them. But they are not simple apprehension, or judgment, or reasoning, or any combination of those.

[Reid repeats in more detail that questioning, promising and giving testimony are perfectly well understood acts of the mind, but ones that fall outside the trichotomy. Then:] When philosophers try to bring them within the confines of their classificatory schemes by analysing them, they find inexplicable mysteries and even contradictions, in them. (Many examples of this might be mentioned, but here is just one: Hume, *Enquiry Concerning the Principles of Morals*, the last long footnote in Section 3.)

Philosophers' attempts to bring our •social operations into the common classificatory scheme are very like the

attempts of some philosophers to analyse all our •social affections as certain forms of self-love. God intended us to be social beings, and for that purpose he has given us •social intellectual powers as well as •social affections. Both are *basic* aspects of our constitution, and it is just as natural to us to employ them as it is to employ the powers that are solitary and selfish.

Our social •intellectual operations, as well as our social •affections, appear very early in life, before we are capable of reasoning; yet •both presuppose a belief that there are other thinking beings. When a child asks its nurse a question, this act of his mind presupposes not only a desire to know the answer but also a belief that the nurse is a thinking being to whom he can communicate his thoughts and who can communicate her thoughts to him. How did he get this conviction so early? That is a question of some importance in the knowledge of the human mind, so it is worthy of the consideration of philosophers. But *they* seem to have given no attention either to this early conviction or to the operations of mind that presuppose it. I'll return to this in due course.

All languages are equipped to express the social as well as the solitary operations of the mind. Indeed, it may be held that the basic and immediate purpose of language is to express the social operations. A man who had no interactions with other thinking beings would never think of language. . . . Once language has been learned, it can be useful even in our solitary meditations; clothing our thoughts with words gives us a firmer hold on them. But this wasn't the original

purpose of language, and the structure of every language shows that it isn't meant solely for this purpose.

In every language, a question, a command, a promise, which are social acts, can be expressed as easily and as properly as can a judgment, which is a solitary act. The expression of the judgment has been honoured with a particular name—it is called a 'proposition'—and philosophers have paid a lot of attention to it, analysing it into its elements of subject, predicate, and copula. All the variants on this basic kind of proposition, and the more complex propositions that are made up out of these, have been anxiously examined in many long books. The linguistic expression of a question, command, or promise is as capable of being analysed as a proposition is; but we don't see this being attempted; we haven't even given them a name different from the operations that they express.

[In this context as in many but not all others, Reid is using 'proposition' to mean what we mean by 'assertoric sentence'. That last point of his means this:

- (1) My *judgment* that grass is green is expressed in the *proposition* 'Grass is green'.
- (2) My *question* as to whether grass is green is expressed in the *question* 'Is grass green?'

In (2) our only label for that sentence is also our label for the mental operation that the sentence expresses.]

Why have theory-builders laboured so anxiously to analyse our solitary operations, and given so little attention to the social ones? The only explanation I can find is this: in their classification of the mind's operations the social operations have been omitted, and thereby pushed out of sight. . . .