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# BOOK I
# 'OF INNATE NOTIONS'

## Chapter i[1]
## Whether there are innate principles in the mind of man.[2]

PHILALETHES. When I re-crossed the Channel after finishing my business in England, my first thought was of visiting you, sir, to renew our old friendship and also to discuss some things which are important to us both and about which I think I have gained new insights during my stay in London. When we were neighbours in Amsterdam, we used to enjoy
70 exploring first principles, and ways of searching into the interiors of things; and although we often differed in our views, this added to the pleasure of our discussions, because there was nothing unpleasant in our occasional conflicts. You sided with *Descartes, and with the opinions of the famous author of the *Search after Truth* [*Malebranche]; and I found the views of *Gassendi, as expounded by M. Bernier, more plausible and natural. I now feel that I am put in a much stronger position by the fine work which a distinguished Englishman whom I have the honour to know personally has since published – a book which has had several reprintings in England under the modest title *Essay Concerning Human Understanding*. Happily, it was recently published in Latin and in French, so that it can be even more widely useful. I have profited greatly from reading this book, and indeed from conversation with its author, with whom I talked often in London and sometimes at Oates, the home of Lady *Masham. She is a daughter worthy of her father, Mr Cudworth, the great English philosopher and theologian and author of the *Intellectual System*; and she has inherited his reflective temper and love of fine knowledge, as is shown especially in the friendship she maintains with the author of the *Essay*. When he was attacked by several worthy scholars, I enjoyed reading a defence of him by a judicious and insightful young lady [*Trotter] as well as the defences he wrote himself. This author is pretty much in agreement with M. Gassendi's system, which is fundamentally that of Democritus: he supports vacuum and atoms, he believes that matter could think, that

[1] In Book I, each chapter number is one lower than the number of the corresponding chapter in any English edition of the *Essay*. Coste rendered Locke's Chapter i as an unnumbered 'Introduction'.

[2] Locke: 'No innate principles in the mind.'

there are no innate ideas, that our mind is a *tabula rasa*, and that we do not think all the time; and he seems inclined to agree with most of M. Gassendi's objections against M. Descartes. He has enriched and strengthened this system with hundreds of fine thoughts; and I am sure that our side will now overwhelm their opponents, the *Peripatetics and the Cartesians. So if you have not already read the book, please do; and if you have read it, I beg you to tell me what you think of it.

THEOPHILUS. I am glad to see you back after all this time, with your 71
important business satisfactorily concluded, your health good, your friendship towards me unchanged, and still prompted by the same eagerness for inquiry into the most important truths. I have also carried on with my meditations, in the same spirit; and I believe that I have profited too, as much as you and perhaps more, if I am not mistaken. But then I needed to, because you were further ahead. You had more to do with the speculative philosophers, while I was more inclined towards moral questions. But I have been learning, more and more, how greatly morality can be strengthened by the solid principles of true philosophy; which is why I have lately been studying them more intensively, and have started on some quite new trains of thought. So we have all we need to give each other a long period of mutual pleasure by explaining our positions to one another. But I should tell you the news that I am no longer a Cartesian, and yet have moved further than ever from your Gassendi, learned and worthy though I acknowledge him to be. I have been impressed by a new system, of which I have read something in the learned *journals of Paris, Leipzig and Holland, and in M. *Bayle's marvellous *Dictionary*, in the article entitled 'Rorarius'; and now I think I see a new aspect of the inner nature of things. This system appears to unite Plato with Democritus, Aristotle with Descartes, the Scholastics with the moderns, theology and morality with reason. Apparently it takes the best from all systems and then advances further than anyone has yet done. I find in it something I had hitherto despaired of – an intelligible explanation of the union of body and soul. I find the true principles of things in the substantial unities which this system introduces, and in their harmony which was pre-established by the *primary substance. I find in it an astounding simplicity and uniformity, such that everything can be said to be the same at all times and places except in degrees of perfection. I now see what Plato had in mind when he took matter to be an imperfect and transitory being; what Aristotle meant by his *'entelechy'; in what sense even Democritus could promise another life, as Pliny says he did; how far the sceptics were right in decrying the senses; why Descartes thinks that animals are 72
automata, and why they nevertheless have souls and sense, just as mankind thinks they do. How to make sense of those who put life and perception

into everything – e.g. of Cardano, Campanella, and (better than them) of the late Platonist Countess of *Conway, and our friend the late M. Franciscus Mercurius van *Helmont (though otherwise full of meaningless paradoxes) together with his friend the late Mr Henry *More. How the laws of nature – many of which were not known until this system was developed – derive from principles higher than matter, although in the material realm everything does happen mechanically. The spiritualizing authors I have just mentioned went wrong about that with their *'archei', and so did even the Cartesians, by believing that immaterial substances at least change the direction or determination, if not the force, of the motions of bodies. Whereas according to the new system the soul and the body each perfectly observes its own laws, and nevertheless they obey one another as much as they should. Finally, since thinking about this system I have discovered why the immortality of human souls is not damaged by the fact that the beasts have souls and sensations; or, rather, why the best possible basis for our natural immortality is the view that all souls are immortal ('souls are exempt from death' [Ovid]), and that this need not create fears about metempsychosis, for it is not merely souls but animals which live, sense and act, and will continue to do so; everywhere it is just as it is here – always and everywhere as it is with us – as follows from what I have already told you. The only difference is that the states of animals are more or less perfect and developed, with no need to invoke completely separated souls; whereas we have spirits which are as pure as may be, despite our bodily organs, since these could not interfere in the slightest with the laws of our spontaneity. What excludes vacuum and atoms, I find, is something entirely different from the faulty Cartesian argument founded on the alleged coincidence of the idea of body with that of extension. I see everything to be regular and rich beyond what anyone has previously conceived; with matter everywhere organic – nothing empty, sterile, idle –
73 nothing too uniform, everything varied but orderly; and, what surpasses the imagination, with the entire universe being epitomized, though always from a different point of view, in each of its parts and even in each of its substantial unities. Besides this new *analysis of things, I have understood better the analysis of notions or ideas, and of truths. I understand what it is for an idea to be true, vivid [**claire*], distinct and – if I may adopt this term – adequate. I understand which are the primary truths and the true axioms; and how to distinguish necessary truths from truths of fact, and human reasoning from its shadow – the thought-sequences of beasts. Well, sir, you will be surprised at all I have to tell you, especially when you grasp how much it elevates our knowledge of the greatness and perfection of God. I have always been open with you, and I cannot hide how possessed I now am by admiration and (if we may venture to use the word) by love of this sovereign source of things and of beauties, since I have

found that those which are revealed by the new system surpass everything that has hitherto been conceived. You know that I once strayed a little too far in another direction, and began to incline to the *Spinozist view which allows God infinite power only, not granting him either perfection or wisdom, and which dismisses the search for final causes and explains everything through brute necessity. But these new insights cured me of that; and since then I have sometimes taken the name Theophilus. I have read the famous Englishman's book of which you have just spoken. I think very well of it, and have found fine things in it. But it seems to me that we should go deeper, and that we should even part company from his opinions when he adopts ones which limit us unduly, and somewhat lower not only the condition of man but also that of the universe.

PHIL. I am indeed astonished by your list of wonders, though your account is somewhat too favourable to be accepted easily. Still, I am ready to hope there will be something solid among all these novelties you wish to spread before me; and if there is, you will find me very teachable. You know that I have always been disposed to yield to reason, and that I have sometimes used the name Philalethes. So let us now use these two very suitable names. We have a way of coming to grips: since you have read the famous Englishman's book which I find so satisfying, and since it deals with a large proportion of the topics you have just mentioned, and especially with the analysis of our ideas and our knowledge, the simplest procedure will be to follow the thread of the book and see what you have to say about it.

THEO. I agree to your proposal. Here is the book.

PHIL. I have read the book so carefully that I can recall its very words, 74
which I shall be careful to follow. Thus, I shall not need to consult it except in certain cases where we think it necessary. We shall discuss first the origin of ideas or notions (Book I), then the different sorts of ideas (Book II) and the words which serve to express them (Book III), and then finally the knowledge and truths which result from them (Book IV). That last part will take the most time.

As for the origin of ideas, I share the belief of this author and many able people that there are no innate ideas, nor any innate principles either. **§1.** And to refute the error of those who do allow them, it would be sufficient to show that – as will emerge later on – there is no need for them, and that men 'may attain to all the knowledge they have, without the help of any innate impressions'.

THEO. You know, Philalethes, that I have long held a different view: that I always did and still do accept the innate idea of God, which M. Descartes upheld, and thus accept other innate ideas which could not come to us from the senses. Now the new system takes me even further; and – as you will see later on – I believe indeed that all the thoughts and actions of our soul

come from its own depths and could not be given to it by the senses. But in the meantime I shall set aside the inquiry into that, and shall conform to accepted ways of speaking, since they are indeed sound and justifiable, and the outer senses can be said to be, in a certain sense, partial causes of our thoughts. I shall thus work within the common framework, speaking of the action of the body on the soul, in the way that the Copernicans quite justifiably join other men in talking about the movement of the sun; and I shall look into why, even within this framework, one should in my opinion say that there are ideas and principles which do not reach us through the senses, and which we find in ourselves without having formed them, though the senses bring them to our awareness. I suppose that your able author has been made hostile to the doctrine of innate principles because he has noticed that people often maintain their prejudices under the name of innate principles, wanting to excuse themselves from the trouble of discussing them. He will have wanted to fight the laziness and the shallowness of thought of those who use the specious pretext of innate ideas and truths, naturally engraved on the mind and readily assented to, to avoid serious inquiry into where our *items of knowledge come from, how they are connected, and what certainty they have. I am entirely on his side about that, and I would go even further. I would like no limits to be set to our
75 analysis, definitions to be given of all terms which admit of them, and demonstrations – or the means for them – to be provided for all axioms which are not primary, without reference to men's opinions about them and without caring whether they agree to them or not. This would be more useful than might be thought. But it seems that our author's zeal, highly praiseworthy though it is, has carried him too far in another direction. In my opinion he has not adequately distinguished the origin of necessary truths, whose source is in the understanding, from that of truths of fact, which are drawn from sense-experience and even from confused perceptions within us. So you see, sir, that I do not accept what you lay down as a fact, namely that we can acquire all our knowledge without the need of innate impressions. We shall see which of us is right.

PHIL. We shall indeed. I grant you, my dear Theophilus, that **§2**. 'there is nothing more commonly taken for granted, than that there are certain principles... universally agreed upon by all mankind', which are therefore called common notions, *koinai ennoiai*;[1] 'which therefore they argue, must needs be... impressions, which the [minds] of men receive in their first beings'. **§3.** But if it were certain that there are principles[2] 'wherein all mankind agreed, it would not prove them innate, if there can be any other way shewn, how men may come to that universal agreement...; which I

[1] Added by Leibniz.

[2] Locke: 'if it were true in matter of fact, that there were certain truths'. The change from 'true...' to 'certain' is Coste's.

presume may be done.' §4. But, what is worse, this universal agreement is hardly to be found, not even with regard to those two famous speculative principles (we shall come to practical principles later) that *Whatever is, is*; and that *It is impossible for something to be and not be at the same time.* For although you will doubtless take these two propositions to be necessary truths, and to be axioms, to a great part of mankind they are not even known.

THEO. I do not rest the certainty of innate principles on universal consent; for I have already told you, Philalethes, that I think one should work to find ways of proving all axioms except primary ones. I grant you also that a very general but not universal agreement could come from a transmission diffused throughout the whole of mankind; the practice of smoking tobacco has been adopted by nearly all nations in less than a century, though some island races have been found who are not even acquainted with fire and thus are far from being smokers. Some able people – even some theologians, though only *Arminians – have believed knowledge of the Divinity came in that way from a very old and very widespread trans- 76
mission; and I am willing to believe that such knowledge has indeed been confirmed and amended by teaching. But it appears that nature has helped to bring men to it without doctrine: the wonders of the universe have made them think of a higher power. A child deaf and dumb from birth has been seen to worship the full moon. And nations have been found which fear invisible powers, though they seem not to have learned anything else from any other societies. I grant you, my dear Philalethes, that this is not yet the idea of God which we have and require; but that idea too is in the depth of our souls, without being put there, as we shall see. And some of God's eternal laws are engraved there in an even more legible way, through a kind of instinct. But these are practical principles, which we shall have occasion to speak about later. You must admit, though, that the inclination we have to recognize the idea of God is part of our human nature. Even if the first teaching of it were attributed to revelation, still men's receptiveness to this doctrine comes from the nature of their souls. But we shall decide later that the teaching from outside merely brings to life what was already in us. I conclude that a principle's being rather generally accepted among men is a sign, not a demonstration, that it is innate; and that the way for these principles to be rigorously and conclusively *proved is by its being shown that their certainty comes only from what is within us. As for your point that there is not universal approval of the two great speculative principles which are the best established of all: I can reply that even if they were not known they would still be innate, because they are accepted as soon as they have been heard. But I shall further add that fundamentally everyone does know them; that we use the principle of contradiction (for

instance) all the time, without paying distinct attention to it; and that the conduct of a liar who contradicts himself will be upsetting to anyone, however uncivilized, if the matter is one which he takes seriously. Thus, we use these maxims without having them explicitly in mind. It is rather like the way in which one has implicitly in mind the suppressed premisses in *enthymemes, which are omitted in our thinking of the argument as well as in our outward expression of it.

PHIL. I am surprised by what you say about implicit knowledge and about these inner suppressions. §5. For it seems 'to me near a contradiction, to say, that there are truths imprinted on the soul, which it perceives . . . not'.

THEO. If you have that prejudice, I am not surprised that you reject innate
77 knowledge. But I am surprised that it has not occurred to you that we know an infinity of things which we are not *aware of all the time, even when we need them; it is the function of memory to store them, and of recollection to put them before us again, which it does often – but not always – when there is need for it to do so. Well might this be called *souvenir* (*subvenire*),[1] for recollection needs some assistance [*mnemonics]. Something must make us revive one rather than another of the multitude of items of knowledge, since it is impossible to think distinctly, all at once, about everything we know.

PHIL. I believe you are right about that. And my too general assertion that *we are always aware of*[2] *all the truths that are in our soul* is one which I let slip without having thought enough about it. But you will not find it quite so easy to deal with the point I am about to put to you. It is that if one can maintain the innateness of any particular proposition, then one will be able to maintain by the same reasoning that all propositions which are reasonable,[3] and which the mind will ever be able to regard as such, are already imprinted on the soul.

THEO. I grant you the point, as applied to pure ideas, which I contrast with images of sense, and as applied to necessary truths or truths of reason, which I contrast with truths of fact. On this view, the whole of arithmetic and of geometry should be regarded as innate, and contained within us in an implicit way, so that we can find them within ourselves by attending carefully and methodically to what is already in our minds, without employing any truth learned through experience or through being handed on by other people. Plato showed this, in a dialogue where he had Socrates leading a child to abstruse truths just by asking questions and without

[1] Here a French word meaning 'come to mind' or 'remember' is followed by a cognate Latin word meaning 'come to the assistance of'.

[2] '*nous nous apercevons de*'; but Locke and Philalethes have spoken only of what '*nous apercevons*', what we perceive.

[3] Locke: 'true'.

teaching him anything [*Meno* 82b]. So one could construct these sciences in one's study and even with one's eyes closed, without learning from sight or even from touch any of the needed truths; although it is true that if one had never seen or touched anything, one would not bring to mind the relevant ideas. For it is an admirable arrangement on the part of nature that we cannot have abstract thoughts which have no need of something sensible, even if it be merely symbols such as the shapes of letters, or sounds; though there is no necessary connection between such arbitrary *symbols and such thoughts. If sensible traces were not required, the pre-established harmony between body and soul, which I shall later have an opportunity to talk to you about more fully, would not obtain. But that does not preclude the mind's obtaining necessary truths from within itself. It is sometimes evident how far it can go through a purely natural logic and arithmetic, with no help: for instance, the Swedish boy who – if 78
I remember rightly what I was told about the case – has developed his natural arithmetic to the point where he can do complex calculations on the spot, in his head, without having learned the standard methods of calculation nor even to read and write. It is true that he cannot solve inverse problems, such as ones which require the finding of roots. But that does not preclude there being some further trick of the mind by which he could have found even those solutions within himself; so it proves only that, of the things which are in us, some are harder to become aware of than others. Some innate principles are common property, and come easily to everyone. Some theorems are also discovered straight away; these constitute *natural sciences, which are more extensive in some people than in others. Finally, in a larger sense, which is a good one to use if one is to have notions which are more comprehensive and determinate, any truths which are derivable from primary innate knowledge may also be called innate, because the mind can draw them from its own depths, though often only with difficulty. But if someone uses terms differently, I would not argue about words.

PHIL. I have conceded that there could be something in the soul which one did not perceive there; for one does not at any given moment remember everything one knows. But whatever is known must have been learned, and must at some earlier stage have been explicitly known. So 'if any one can be said to be in the mind, which it never yet knew, it must be only because' it has the capacity or faculty for knowing it.

THEO. Why couldn't it be because of something different, such as that the soul can contain things without one's being aware of them? Since an item of acquired knowledge can be hidden there by the memory, as you admit that it can, why could not nature also hide there an item of unacquired

knowledge? Must a self-knowing substance have, straight away, actual knowledge of everything which belongs to its nature? Cannot – and should not – a substance like our soul have various properties and states which could not all be thought about straight away or all at once? The Platonists thought that all our knowledge is recollection, and thus that the truths which the soul brought with it when the man was born – the ones called innate – must be the remains of an earlier explicit knowledge. But there
79 is no foundation for this opinion; and it is obvious that if there was an earlier state, however far back, it too must have involved some innate knowledge, just as our present state does: such knowledge must then either have come from a still earlier state or else have been innate or at least created with [the soul]; or else we must go to infinity and make souls eternal, in which case these items of knowledge would indeed be innate, because they would never have begun in the soul. If anyone claimed that each previous state took something from a still earlier state which it did not pass on to its successors, the reply is that obviously some self-evident truths must have been present in all of these states. On any view of the matter, it is always manifest in every state of the soul that necessary truths are innate, and that they are proved by what lies within, and cannot be established by experience as truths of fact are. Why could one not have in the soul something which one had never used? Is having something which you do not use the same as merely having the faculty for acquiring it? If that were so, our only possessions would be the things we make use of. Whereas in fact it is known that for a faculty to be brought to bear upon an object there must often be not merely the faculty and the object, but also some disposition in the faculty or in the object, or in both.[1]

PHIL. On that view of the matter, one will be able to say that there are truths engraved in the soul[2] which it has never known, and even ones which it will never know; and that appears strange to me.

THEO. I see no absurdity in that – though one cannot say confidently that there are such truths. For things which are higher than any we can know in our present course of life may unfold in our souls some day when they are in a different state.

PHIL. But suppose that 'truths can be imprinted on the understanding without being perceived' by it: I do not see how they can differ, so far as their origin is concerned, from ones which the understanding is merely capable of coming to know.

THEO. The mind is capable not merely of knowing them, but also of finding them within itself. If all it had was the mere capacity to receive those items of knowledge – a passive power to do so, as indeterminate as the power

[1] Taking '*et dans toutes les deux*' to be a slip for '*ou dans tous les deux*'.
[2] Locke: 'imprinted on the mind'. Coste's change.

of wax to receive shapes or of a blank page to receive words – it would not be the source of necessary truths, as I have just shown that it is. For it 80
cannot be denied that the senses are inadequate to show their necessity, and that therefore the mind has a disposition (as much active as passive) to draw them from its own depths; though the senses are necessary to give the mind the opportunity and the attention for this, and to direct it towards certain necessary truths rather than others. So you see, sir, that these people who hold a different view, able though they are, have apparently failed to think through the implications of the distinction between necessary or eternal truths and truths of experience. I said this before, and our entire debate confirms it. The fundamental proof of necessary truths comes from the understanding alone, and other truths come from experience or from observations of the senses. Our mind is capable of knowing truths of both sorts, but it is the source of the former; and however often one experienced instances of a universal truth, one could never know inductively that it would always hold unless one knew through reason that it was necessary.

PHIL. But if the words 'to be in the understanding' have any positive content, do they not signify *to be perceived and comprehended by the understanding*?[1]

THEO. They signify something quite different to us. It suffices that what is 'in the understanding' can be found there, and that the sources or fundamental proofs of the truths we are discussing are only 'in the understanding'. The senses can hint at, justify and confirm these truths, but can never demonstrate their infallible and perpetual certainty.

PHIL. §11. However, all 'those who will take the pains to reflect with a little attention on the operations of the understanding, will find, that this ready assent of the mind to some truths, depends' on the faculty of the human mind.[2]

THEO. Yes indeed. But what makes the exercise of the faculty easy and natural so far as these truths are concerned is a special affinity which the human mind has with them; and that is what makes us call them innate. So it is not a bare faculty, consisting in a mere possibility of understanding those truths: it is rather a disposition, an aptitude, a preformation, which determines our soul and brings it about that they are derivable from it. Just as there is a difference between the shapes which are arbitrarily given to a stone or piece of marble, and those which its veins already indicate or are disposed to indicate if the sculptor avails himself of them.

PHIL. But truths are subsequent to the ideas from which they arise, are 81
they not? And ideas all come from the senses.[3]

[1] Locke: 'If [they] have any propriety, they signify to be understood.' Coste's change.
[2] Locke: 'depends not, either on native inscription, or the use of reason; but on a faculty of the mind quite distinct from both of them'.
[3] Added by Leibniz, perhaps based on Locke's §§15–16.

THEO. Intellectual ideas, from which necessary truths arise, do not come from the senses; and you acknowledge that some ideas arise from the mind's reflection when it turns in on itself. Now, it is true that explicit knowledge of truths is subsequent (in temporal or natural order) to the explicit knowledge of ideas; as the nature of truths depends upon the nature of ideas, before either are explicitly formed, and truths involving ideas which come from the senses are themselves at least partly dependent on the senses. But the ideas that come from the senses are confused; and so too, at least in part, are the truths which depend on them; whereas intellectual ideas, and the truths depending on them, are distinct, and neither [the ideas nor the truths] originate in the senses; though it is true that without the senses we would never think of them.

PHIL. But according to you, the ideas of numbers are intellectual ones; and yet the difficulties about numbers arise from the difficulty of explicitly forming the requisite ideas. **§ 16.** For example, 'a man knows that eighteen and nineteen, are equal to thirty-seven, by the same self-evidence, that he knows one and two to be equal to three: yet, a child knows this, not so soon as the other; . . . because the ideas the words eighteen, nineteen, and thirty-seven stand for, are not so soon got, as those, which are signified by one, two, and three.'

THEO. I can grant you that the difficulty about explicitly forming truths often arises from a difficulty about explicitly forming ideas. I think that in your example, however, it is rather a matter of using ideas which have already been formed. For anyone who has learned to count to 10, and the procedure for going on from there by a certain repetition of tens, easily grasps what 18, 19 and 37 are, namely one or two or three times 10, plus 8 or 9 or 7. But to infer from this that 18 plus 19 make 37, requires more attention than is needed to know that 2 plus 1 are three, which really amounts only to a definition of *three*.

PHIL. **§ 18.** It is not 'the prerogative of numbers alone', or of the ideas which you call intellectual, to 'afford propositions, which are sure to meet with assent, as soon as they are understood.' They are encountered also in 'natural philosophy, and all the other sciences', and even the senses provide some.[1] For example, the proposition 'that two bodies cannot be in the same place [at the same time],[2] is a truth, that no body any more sticks at, than at this maxim, That it is impossible for the same thing to
82 be, and not to be [at the same time]; That white is not [red], That a square is not a circle, That yellowness is not sweetness'.

[1] Added by Leibniz.

[2] Whenever 'at the same time' occurs in parentheses, the addition is Coste's. Future occurrences will not be noted.

THEO. There is a difference between these propositions. The first of them, which claims that bodies cannot interpenetrate, needs proof. Indeed, it is rejected by all those who believe in condensation and rarefaction, strictly and properly so-called, such as the Peripatetics and the late Sir Kenelm Digby; not to mention Christians, most of whom think that the opposite – namely the *penetration of dimensions – is possible for God. But the other propositions are *identities*, or nearly so; and identical or immediate propositions do not admit of proof. The ones pertaining to what the senses provide, such as that 'yellowness is not sweetness', merely apply the general maxim of identity to particular cases.

PHIL. 'Every proposition, wherein one different idea is denied of another,' e.g. that the square is not a circle, and that to be yellow is not to be sweet, will just as certainly be accepted as indubitable[1] 'at first . . . understanding the terms, as this general one, *It is impossible for the same to be, and not to be [at the same time]*'.

THEO. That is because one (namely the general maxim) is the principle, while the other (namely the negation of an idea by an opposed idea) is the application of it.

PHIL. It seems to me rather that the maxim rests on that negation, 'which is the foundation of it', and that it is even easier to grasp that '*The same is not different*' than to grasp the maxim which rejects contradictions. By your account, then, we shall have to admit as innate truths an infinite number of propositions of this kind, in which one idea is denied of another, not to mention other truths. Furthermore, 'since no proposition can be innate, unless the ideas [which make it up][2] be innate, this will be, to suppose all our ideas of colours, sounds, tastes, figures, etc. innate'.

THEO. I cannot really see how the proposition *The same is not different* is the origin of the principle of contradiction, and 'easier' than it: for it appears to me that one goes further in asserting that A is not B than in saying that A is not non-A; and it is *because* B contains non-A that A is prevented from being B. Furthermore, the proposition that *The sweet is not the bitter* is not 'innate' in the sense we have given to the term 'innate truth'; for the *sensations of sweet and bitter come from the outer senses, 83
so that the proposition is a mixed conclusion (*hybrida conclusio*), in which the axiom is applied to a sensible truth. But as for the proposition *The square is not a circle*: it might be called innate, for in thinking it one applies the principle of contradiction to materials which the understanding itself provides, as soon as one becomes aware that these ideas – which are innate – contain incompatible notions.

[1] Locke: 'as certainly find assent'. Coste's change.
[2] Locke: 'ideas, about which it is'. Coste's change.

PHIL. **§19.** When you maintain 'that those...particular self-evident propositions, which are assented to at first hearing, as...that green is not red,...are received as the consequences of those more universal propositions, which are looked on as innate principles', you seem to overlook the fact, sir, that these particular propositions are accepted as indubitable truths by people who know nothing of those more general maxims.

THEO. I have answered that already [p. 76]. We rely on those general maxims, as we rely on the major premisses which are suppressed when we reason in enthymemes; for although we are very often not thinking distinctly about what we are doing when we reason, any more than about what we are doing when we walk or jump, it remains the case that the cogency of the inference lies partly in what is being suppressed; there is nowhere else it can come from, as one will discover in trying to defend the inference.

PHIL. **§20.** But 'those general and abstract ideas' seem to be 'more strangers' to our minds than are particular truths and notions; so these particular truths will be more natural to the mind than is the principle of contradiction, and yet you say that they are just applications of it.

THEO. The truths that we start by being aware of are indeed particular ones, just as we start with the coarsest and most composite ideas. But that doesn't alter the fact that in the order of nature the simplest comes first, and that the reasons for particular truths rest wholly on the more general ones of which they are mere instances. And when one wants to think about what is in us implicitly, before all awareness, it is right to start with the simplest.

84 For general principles enter into our thoughts, serving as their inner core and as their mortar. Even if we give no thought to them, they are necessary for thought, as muscles and tendons are for walking. The mind relies on these principles constantly; but it does not find it so easy to sort them out and to command a distinct view of each of them separately, for that requires great attention to what it is doing, and the unreflective majority are hardly capable of that. Do not the Chinese have articulate sounds, just as we do? And yet, since they have adopted a different system of writing, it has not yet occurred to them to make an alphabet of these sounds. It is in that way that many things are possessed without the possessor's knowing it.

PHIL. **§21.** If the mind agrees so readily to certain truths, might that not be because the very 'consideration of the nature of...things' will not let it judge otherwise, rather than because these propositions are naturally engraved in the mind?

THEO. Both are true: the nature of things and the nature of the mind work together. And since you contrast the consideration of the thing with the awareness of what is engraved in the mind, this very objection shows, sir,

that those with whom you ally yourself take 'innate truths' to be merely whatever one would naturally accept, as though by instinct, even if one knows it only in a confused way. There are truths like that, and we shall have occasion to discuss them. But the *light of nature*, as it is called, involves distinct knowledge; and quite often a 'consideration of the nature of things' is nothing but the knowledge of the nature of our mind and of these innate ideas, and there is no need to look for them outside oneself. Thus I count as innate any truths which need only such 'consideration' in order to be verified. I have already replied (§5) [p. 79] to the objection (§22) which maintains that when it is said that innate notions are 'implicitly' in the mind, that should signify only that the mind has a faculty for knowing them; for I have pointed out that it has in addition a faculty for finding them in itself, and the disposition, if it is thinking about them properly, to accept them.

PHIL. **§23.** You seem then to be maintaining, sir, that those who hear these general maxims for the first time learn nothing which is entirely new to them. But it is clear that they do learn – first the names, and then the truths and even the ideas on which these truths depend.

THEO. Names are not in question here. They are in a way arbitrary, 85
whereas ideas and truths are natural. But with regard to these ideas and truths, you attribute to me, sir, a doctrine which I am far from accepting; for I quite agree that we learn innate ideas and innate truths, whether by paying heed to their source or by verifying them through experience. So I do not suppose, as you say I do, that in the case you have mentioned we learned nothing new. And I cannot accept the proposition that *whatever is learned is not innate*. The truths about numbers are in us; but still we learn them, whether by drawing them from their source, in which case one learns them through demonstrative reason (which shows that they are innate), or by testing them with examples, as common arithmeticians do. The latter, not knowing the underlying principles, learn their rules merely through their being handed on; at best, before teaching them they confirm their rules, as far as they judge appropriate, by trying them out.[1] Sometimes even a very able mathematician, not knowing the proof of some result obtained by someone else, has to be satisfied with examining it by that inductive method. That is what was done by a well-known writer in *Paris while I was there: he tested my arithmetical tetragonism rather hard by comparing it with Ludolph's numbers, expecting to find something wrong in it; and he was right to go on being sceptical until he was sent the demonstration of it [*quadrature]. Demonstration spares us from having to make these tests, which one might continue endlessly without

[1] '*par l'expérience*'.

ever being perfectly certain. And it is just that – namely the imperfection of inductions – that *can* be verified through the trying out of particular cases.[1] For there are progressions which one can follow a very long way before grasping the changes, and the laws that they involve.

PHIL. But might it not be that not only the terms or words that we use, but also our ideas, come from outside us?

THEO. If they did, we too should have to be outside ourselves; for intellectual ideas, or ideas of reflection, are drawn from our mind. I would
86 like to know how we could have the idea of *being* if we did not, as beings ourselves, find being within us.

PHIL. What do you say, sir, to this challenge which a friend of mine has offered? If anyone can find a proposition whose ideas are innate, let him name it to me (he says); he could not please me more.

THEO. I would name to him the propositions of arithmetic and geometry, which are all of that nature; and among necessary truths no other kind is to be found.

PHIL. Many people would find that strange. Can we really say that the deepest and most difficult *sciences are innate?

THEO. The actual knowledge of them is not innate. What is innate is what might be called the implicit knowledge of them, as the veins of the marble outline a shape which is in the marble before they are uncovered by the sculptor.

PHIL. **§25.** But is it possible that children 'receive and assent to adventitious[2] notions, and [are] ignorant of those, which are supposed' to be innate in them and to be as it were parts of their mind, in which they are said to be 'imprinted[3]...in indelible characters, to be [a] foundation ...? This would be, to make Nature take pains to no purpose; or, at least, to [engrave] very ill; since its characters could not be read by those eyes, which saw other things very well'.

THEO. To be aware of what is within us, we must be attentive and methodical. Now, it is not only possible but appropriate that children should attend more to the notions of the senses, because attention is governed by need. However, we shall see later that nature has not 'taken pains to no purpose' in imprinting us, innately, with items of knowledge; for without these there would be no way of achieving actual knowledge of

[1] '*par les instances de l'expérience*'.
[2] Taking '*au dehors*' to be a slip for Coste's '*de dehors*'.
[3] Locke: 'supposed woven into the very principles of their being, and imprinted'. Coste's change.

necessary truths in the demonstrative sciences, or of learning the reasons for facts; and we should have nothing over the beasts.

PHIL. **§26.** If there are innate truths, must there not be innate thoughts?

THEO. Not at all. For thoughts are actions, whereas items of knowledge (or truths), in so far as they are within us even when we do not think of them, are tendencies or dispositions; and we know many things which we scarcely think about.

PHIL. It is very hard to conceive of 'a truth in the mind, that it has never 87
thought on.'

THEO. That is like saying that it is hard to conceive how there can be veins in the marble before they have been uncovered. Also, this objection seems to come rather too close to begging the question. Everyone who admits innate truths, without founding them on Platonic recollection, admits some which have not yet been thought of. Furthermore, your argument proves too much: for if truths are thoughts, we shall lose not only truths which we have never thought of but also those which we have thought of but are no longer thinking of at this moment. And if truths are not thoughts but tendencies and aptitudes, natural or acquired, there is no obstacle to there being within us truths which have never and will never be thought about by us.

PHIL. **§27.** If general maxims were innate they 'should appear fairest and clearest in those persons, in whom yet we find no footsteps of them'. I allude to 'children, idiots, savages,' who are of all men those whose minds are the least spoiled and corrupted by custom or by the influence of borrowed opinions.

THEO. I believe that the argument at this point should run quite differently. Innate maxims make their appearance only through the attention one gives to them; but those people have almost no attention to give, or have it only for something quite different. They think about little except their bodily needs; and it is appropriate that pure and disinterested thoughts should be the reward for having nobler concerns. It is true that the minds of children and savages are less 'spoiled by customs', but they are also less improved by the teaching which makes one attentive. It would be very unjust if the brightest lights had to shine better in minds which are less worthy of them and are wrapped in the thickest clouds. People as learned and clever as you, Philalethes, or your excellent author, should not flatter ignorance and barbarism; for that would be to disparage the gifts of God. It may be said that the less one knows the closer one comes to sharing with blocks of marble and bits of wood the advantage of being 88
infallible and faultless. But unfortunately that is not the respect in which one comes close to them; and in so far as one is capable of knowledge, it

is a sin to neglect to acquire it, and the less instruction one has had the easier it is to fail in this.

## Chapter ii
## That there are 'no innate practical principles'.

PHILALETHES. **§1.** Morality is a demonstrative science, and yet it has no innate principles. Indeed 'it will be hard to instance [a] moral rule, which can pretend to so general and ready an assent[1] as, *What is, is*'.

THEOPHILUS. It is absolutely impossible that there should be truths of reason which are as evident as *identities* or immediate truths. Although it is correct to say that morality has indemonstrable principles, of which one of the first and most practical is that we should pursue joy and avoid sorrow, it must be added that that is not a truth which is known solely from reason, since it is based on inner experience – on confused knowledge; for one only senses[2] what joy and sorrow are.

89 PHIL. It is only through 'reasoning and discourse, and some exercise of the mind,' that one can be sure of practical truths.[3]

THEO. Even so, that would not make them any less innate. However, the maxim which I have just advanced seems to be of a different nature; it is not known by reason but by an *instinct*, so to speak. It is an innate principle, but it does not share in the natural light since it is not known in a luminous way. Given this principle, though, one can derive scientific conclusions from it, and I warmly applaud what you have just said, sir, about morality as a demonstrative science. So we observe that it teaches truths so evident that robbers, pirates and bandits are compelled to observe them among themselves.

PHIL. **§2.** But thieves 'keep... rules of justice one with another', without taking them to be innate principles.

THEO. What does that show? Do people generally trouble themselves about these theoretical issues?

PHIL. They practise the maxims of justice only as 'rules of convenience' which they absolutely must observe if they are to preserve their confederacy.[4]

THEO. Very good; and if you were speaking generally of all mankind, you could not improve on that. This is how these laws are engraved in the soul, namely as necessary for our survival and our true welfare. Are we supposed to be maintaining that truths are in the understanding independently of one another, as the Praetor's edicts used to be on his notice-board – his

[1] Preferring '*reçue*', from an earlier version, to the Academy edition's '*résolue*'.
[2] Taking '*on ne sent pas*' ('one does not sense') to be a slip. In drafting the passage, Leibniz first wrote '*on ne sait pas assez*' ('one does not really know').
[3] Locke: 'moral principles'.
[4] Added by Coste.

doctrines can bear a sound sense. So I wish that men of intellect would seek to gratify their ambition by building up and moving forward, rather than by retreating and destroying. I would rather they emulated the
101 Romans who built fine public works than that Vandal king whose mother advised him that since he could not hope for renown by rivalling those magnificent structures he should seek to destroy them.

PHIL. **§§24–7.** When able men have fought against innate truths, their aim has been to prevent others from passing off prejudices and concealing laziness under a high-sounding name.

THEO. We agree about this; for, far from approving the acceptance of doubtful principles, I want to see an attempt to demonstrate even Euclid's axioms, as some of the ancients tried to do. If it be asked how one can know and investigate innate principles, I reply in conformity with what I have said above: apart from the instincts the reason for which is unknown, we must try to reduce them to first principles (i.e. to identical or immediate axioms) by means of definitions, which are nothing but a distinct setting out of ideas. I do not doubt that even your friends, opposed as they have so far been to innate truths, are in favour of this method, which appears to conform to their chief aim.

## Chapter iii
## 'Other considerations concerning innate principles, both speculative and practical.'

PHILALETHES. **§3.** You would have truths reduced to first principles; and I grant you that if there is any innate principle it is undeniably this: '*It is impossible for the same thing to be, and not to be* [*at the same time*]'. But it appears hard to maintain that this is innate, since we must also be convinced 'that impossibility and identity, are two innate ideas'.

THEOPHILUS. Those who support innate truths must indeed maintain and be convinced that those ideas are also innate – I acknowledge that that is
102 my own opinion. The ideas of *being*, *possible* and *same* are so thoroughly innate that they enter into all our thoughts and reasoning, and I regard them as essential to our minds. But I have already said that we do not always pay particular attention to them, and that it takes time to sort them out. I have said too that we are so to speak innate to ourselves; and since we are beings, being is innate in us – the knowledge of being is comprised in the knowledge that we have of ourselves. Something very like this holds of other general notions.

PHIL. **§4.** If the idea of identity is natural,[1] 'and consequently so clear and obvious to us, that we must needs know it even from our cradles; I would

[1] Locke: 'If identity. . .be a native impression'. Coste's change.

gladly be resolved, by one of seven, or seventy years old, whether a man, being a creature, consisting of soul and body, be the same man, when his body is changed?' And whether, on the supposition of metempsychosis, Euphorbus would be the same as Pythagoras?

THEO. I have said often enough that what is natural to us need not therefore be known from the cradle. Furthermore we can know an idea without being able to settle straight away all the questions which can be raised about it. As if someone were to argue that a child cannot know what a square and its diagonal are because it will have trouble grasping that the diagonal is incommensurable with the side of the square. As for the question itself, it appears to me to be demonstratively settled by the doctrine of monads which I have published elsewhere [e.g. 'On nature itself']; but we shall discuss this matter more fully later [pp. 232 ff].

PHIL. **§6.** I see that it would be useless to object to you that the axiom according to which 'the whole is bigger than a part' is not innate, on the grounds that the ideas of whole and part are 'relative', and depend on those of number and extension; for you would be likely to maintain that 103
there are logically derivative innate ideas,[1] and that those of number and extension are innate too.

THEO. You are right. Indeed my view is rather that the idea of extension is posterior to those of whole and part.

PHIL. **§7.** What do you say about the truth 'that God is to be worshipped' – is it innate?

THEO. I believe that the duty to worship God implies that at certain times one should indicate that one honours him beyond any other object, and that this follows necessarily from the idea of him and from his existence, which on my theory signifies that this truth is innate.

PHIL. **§8.** But atheists seem to prove by their example that the idea of God is not innate. Apart from the ones which were 'taken notice of amongst the ancients,' have not whole nations been discovered – such as at the Bay of Saldanha, and in Brazil, the Caribee Islands, and Paraguay – who had no idea of God[2] nor any names standing for God or the soul?

THEO. The late M. *Fabricius, the well-known Heidelberg theologian, wrote an *Apology* for the human race, to clear it of the charge of atheism. He was a very careful writer and quite above many prejudices. However, I have no intention of getting into this debate about the facts. I will concede that there are whole peoples who have never thought of the supreme substance or of what the soul is. I remember when, at my request, seconded by the distinguished M. *Witsen, someone attempted to obtain for me in

[1] '*idées innées respectives*'.
[2] Locke: 'no notion of a God'. Coste's change.

Holland a version of the Lord's Prayer in the language of Barantola, he got no further than 'hallowed be thy name', because it was impossible to
104 make the Barantolans understand the meaning of 'holy'. I remember too that in the *Credo* written for the Hottentots, it was necessary to use their words for a gentle and pleasant wind to translate 'Holy Spirit'. This is not unreasonable since our Greek and Latin words *pneuma*, *anima*, *spiritus* primarily signify simply the air or wind which one breathes, as being one of the most rarefied things that our senses acquaint us with; one starts with the senses in order to lead men gradually to what is above the senses. However, all these difficulties in the way of attaining abstract knowledge count not at all against innate knowledge. There are people who have no word corresponding to 'being'; does anyone suspect that they do not know what it is to be, granted that they hardly ever think of *being* in isolation? Before I finish, what I have read in our distinguished author about the idea of God is so fine and so much to my liking that I cannot forbear quoting it: 'Men...can scarce avoid having some kind of ideas of those things, whose names, those they converse with, have occasion frequently to mention to them: and if it carry with it the notion of excellency, greatness, or something extraordinary' which engages some part of one's being and is impressed upon the mind under the idea of an absolute and irresistible power which one cannot help fearing (or, I would add, an ultimate goodness which one cannot help loving),[1] then 'the idea is likely to sink the deeper, and spread the farther; especially if it be such an idea, as is agreeable to the [simplest lights][2] of reason, and naturally deducible from every part of our knowledge, as that of... God is. For the [brilliant] marks[3] of extraordinary wisdom and power, appear so plainly in all the works of the creation, that a rational creature, who will but seriously reflect on them, cannot miss the discovery of [the author of all these wonders]:[4] and the influence, that the discovery of such a being must [naturally have on the soul][5] of all, that have but once heard of it, is so great, and carries' with it thoughts which are so weighty and so fit to be propagated in the world,[6] 'that it seems stranger to me, that a whole nation of men should be any where found so brutish, as to want the notion of a god; than that they should be without any notion of numbers, or fire.' (*Essay* I.iv.9) I wish that I might copy word for word many other excellent passages from our author which we are obliged to pass over. All I shall say at this point is that this author when he speaks of 'the simplest lights of reason' which are 'agreeable to'

[1] Parenthetical clause added by Leibniz. The unquoted clauses preceding it represent an expansion by Coste.
[2] Locke: 'common light'. Coste's change.
[3] Locke: 'of a God is. For the visible marks'. Coste's changes.
[4] Locke: 'discovery of a deity'. Coste's change.
[5] Locke: 'necessarily have on the minds'. Leibniz's adverb, Coste's noun.
[6] Locke: 'carries such weight of thought and communication with it'. Coste's change.

the idea of God, and of what is 'naturally deducible' from them, appears 10
to differ hardly at all from my own views about innate truths. When he says that it seems to him as strange that there should be men with no idea of God as it would be surprising to find men who had no idea of number or of fire, I would point out that the inhabitants of the Mariana Islands – named after the Queen of Spain, who supported missions to them – had no knowledge of fire at the time that they were discovered. My source is the account which Father *Le Gobien, the French Jesuit in charge of missions to distant lands, has presented to the public and sent to me.

PHIL. **§15.** 'If it be a reason to think the notion of God innate, because all wise men had it, virtue too must be . . . innate; for wise men have always had' a genuine idea of it.

THEO. It is not virtue but the idea of virtue that is innate. Perhaps that is all that you mean.

PHIL. **§16.** ''Tis as certain, that there is a god, as that the opposite angles, made by the intersection of two straight lines, are equal. There was never any rational creature, that set himself sincerely to examine the truth of these propositions, that could fail to assent to them: though yet it be past doubt, that there are many men, who having not applied their thoughts that way, are ignorant both of the one and the other.'

THEO. I grant it, but that does not stop them from being innate, i.e. one's being able to find them within oneself.

PHIL. **§18.** It would be useful also to have an innate idea of *substance*; but in fact we have that neither as innate nor as acquired, since we have it neither by sensation nor by reflection.

THEO. It is my opinion that reflection enables us to find the idea of substance within ourselves, who are substances. And this is an extremely important notion. But perhaps we shall speak of it at greater length later in our discussion.

PHIL. **§20.** 'If there be any innate ideas . . .[1] in the mind, which the mind 106
does not actually think on; they must [at least] be lodged in the memory, and from thence must be brought into view by remembrance; i.e. must be known, when [the memory of them is conjured up], to have been perceptions in the [*soul] before, unless remembrance can be without remembrance.' For this inner conviction[2] that such an idea has been in our mind before is strictly 'that, which distinguishes remembering from all other ways of thinking.'

THEO. Knowledge, ideas and truths can be in our minds without our ever having actually thought about them. They are merely natural tendencies,

[1] Locke: 'any innate ideas, any ideas'. Coste's omission.
[2] Locke: 'this consciousness'. Coste's change.

that is dispositions and attitudes, active or passive, and more than a *tabula rasa*. However, the Platonists did indeed believe that we have already actually thought about everything that we find again within us; to say that we do not remember doing so will not refute them, since certainly countless thoughts come back to us which we have forgotten having had. It once happened that a man thought that he had written original verses, and was then found to have read them word for word, long before, in some ancient poet. And we often have an unusual capacity to conceive certain things because we have conceived them formerly without remembering doing so. A child who has become blind may forget having ever seen light and colours; this is what happened to the famous Ulrich Schönberg at the age of two and a half, as a result of smallpox. He was born in Weiden, in the Upper Palatinate, and died at Königsberg in Prussia in 1649; he taught philosophy and mathematics there and was universally admired. Such a man may well retain the effects of former impressions without remembering them. I think that dreams often revive former thoughts for us in this way. After Julius Scaliger had extolled the eminent men of Verona in verse, a certain man calling himself Brugnolus, who came from Bavaria but had settled in Verona, appeared to him in a dream and complained of having been overlooked. Scaliger, who could not remember having ever before heard of him, nevertheless wrote an elegy in his honour on the authority of this dream. Later his son, Joseph Scaliger, while travelling in Italy,
107 learned in more detail that there had formerly been in Verona a famous grammarian or scholarly critic of this name who had contributed to the restoration of literature in Italy. This story can be found in the elder Scaliger's poems, which include the elegy, and in his son's letters. It is also presented in *Scaligerana*, which has been put together from Joseph Scaliger's conversations. It is very likely that Julius Scaliger had had some knowledge of Brugnol and no longer remembered it, and that his dream had in part consisted in reviving a former idea – although there had not occurred that 'remembering', strictly so-called, which makes us know that we have had that same idea before. At least, I see nothing which compels us to insist that no traces of a perception remain just because there are not enough left for one to remember that one has had it.

PHIL. I must acknowledge that you reply naturally enough to the objections which we have made to innate truths. Perhaps, then, our authors do not deny them in the same sense in which you maintain them. So I shall merely reiterate, sir, that **§24.** there has been some reason to fear that the belief in innate truths may serve as an excuse to ease 'the lazy from the pains of search,' and may let masters and teachers, for their own convenience, 'make this the principle of principles, that principles must not be questioned'.

THEO. I have already said that if *that* is your friends' purpose, to urge us to look for the proofs of truths which admit of them, whether or not they are innate, then I entirely agree. The belief in innate truths, taken in my way, should not distract anyone from that; not only is it good to look for the explanation of instincts, but it is one of my chief maxims that it is good to look for the demonstrations even of axioms. I remember that in Paris, when they laughed at the late M. *Roberval, who was old by then, because he wanted to demonstrate Euclid's axioms following the examples of Apollonius and Proclus, I showed the importance of such an inquiry. As for the 'principle' of those who say that we should never argue with people who deny principles, it does not wholly apply to any principles except those which can be neither doubted nor proved. Of course, restrictions may be imposed on public disputes and certain other assemblies, in order to prevent outrages and disturbances; and under these it may be forbidden to question certain established truths. But this is a matter of public order rather than of philosophy.