Descartes published his Meditations in First Philosophy in 1641. A French translation from the original Latin, which he saw and approved followed six years later. The words ‘in First Philosophy’ indicate that the Meditations attack fundamental questions, the chief of them being the nature of knowledge and the nature of man. I shall deal almost entirely with his treatment of the first, the nature of knowledge; even when the two questions become mixed up, as they notoriously do, I shall not encroach on to the second, the nature of man. The Meditations were intended to confirm Descartes’ reputation as a philosopher (he was already pre-eminent as a mathematician and a scientist) and, to increase their impact, they were accompanied in their first publication by a series of comments solicited from notable theologians and philosophers together with Descartes’ replies. These comments are called the Objections and numbered from one to six, but it is only an accident that there are six Meditations and six Objections. There are six Objections because there are six objectors (that is not quite true, the sixth Objection being a collection of comments from several people) and each Objection ranges over the whole work, although, of course, the different commentators focused upon the parts they found important or questionable. Many of the Objections, particularly those of Arnauld and Gassendi, contain acute and valuable criticisms. Descartes took exception to Gassendi’s contribution and wished not to have it published. He maintained that Gassendi quite misunderstood him, but that doesn’t seem true. It is true that Gassendi pokes fun at Descartes in addressing him first ‘O Soul’ and later, pretending to realize his mistake, ‘O Mind’, but no doubt the trouble was that Gassendi understood rather too well, fastening upon inconsequentialities in the argument and inconsistencies in the thought and finding, against both, formidable arguments. Inconsequentialities and inconsistencies there are, so much so that the work is a set of parts rested together to give the appearance of a construction, not fitted together really to make one. That did not prevent the Meditations having as great an influence on philosophical thought as any work from the day of its publication to our own, or prevent Descartes’ ideas from occupying the minds of philosophers ever since.

Among Descartes’ scientific opinions were many that he did not know to be true. He held that nature abhorred a vacuum and he certainly did not know that to be true. Nature does not abhor a vacuum. He held that there were ice crystals in the upper atmosphere and that the white halo to be seen around the sun in some atmospheric conditions was formed by refraction of the sun’s light in those ice crystals, just as the rainbow is formed, men learnt from Descartes’ celebrated theory, so much deplored.
by Keats, by the refraction of the sun’s light in the water drops of a shower of rain or the spray of a waterfall. His explanation of the sun halo is accepted. It was a remarkable piece of anticipation on his part, but he had little indication that the ice crystals were there, other than the phenomenon he invoked them to explain. Nevertheless such opinions, the former opposed by eminent authorities of his own day, among them Galileo, the latter involving what must have seemed even to him to be a speculation, are not the sort of which Descartes first calls his knowledge into question. Indeed they are lint the sort of which he ever explicitly, for more than a moment, calls his knowledge into question, when, at the beginning of the Meditations, he proceeds to withdraw his assent, or, better, to explore what would remain if he were to withdraw his assent, from every one of his opinions that he does not know for certain to be true. He applies his rigorous test to his knowledge of opinions of a sort that, before he started meditating, he would have said he knew for certain to be true and which everyone, before reading his discussion and probably afterwards too, would say he knew for certain. He investigates whether he knows that he is sitting in front of the fire, not whether he knows that there are ice crystals in the upper atmosphere, whether he knows that two and three makes five, not whether he knows that nature abhors a vacuum. Such a procedure, which avoids the things we genuinely find dubious and which never examines the difference between them and the things we find certain, cannot but seem unsatisfactory. Descartes sought a different dividing line and by his rigorous test he hoped to discover opinions of which his knowledge was perfect and to demonstrate the nature of that perfect knowledge. What these were we shall soon see; they were not at all what most people take them to be.

In the course of the first Meditation, Descartes finds several different reasons for refusing to accept as certain things that are universally taken to be so. He has the evidence of his senses for many things, yet he has found before that his senses have deceived him: he should not put complete trust where he has once been deceived. That is not such an obviously sensible maxim and he admits that there may be favourable circumstances in which his senses never deceive him. Unfortunately, he argues, he does not even know for certain whether he is using his senses. He has often dreamt that he was sitting by the fire, writing, when he was actually asleep in bed. There is no certain mark to distinguish waking from sleeping. His senses may never deceive him and yet, because he can dream and form opinions that do not arise from the use of his senses but seem to do so, he can he mistaken even about those matters on which the senses are perfectly reliable, even about whether he is sitting by the fire. In sum, he refuses to accept as certain his opinions about the physical world around him on the grounds that he is sometimes mistaken about them, even about those that seem most evidently true. Further, his fallibility arises from his being a man: it is part of men’s nature that they fall asleep and dream.
However, his consideration of dreaming points, he feels bound to admit, towards some things common to dreams and reality. The fact that he regularly falls asleep and dreams does not show that he ever makes mistakes about features common to both states. Things in dreams are coloured, just as they are in waking life; they have some shape, some length and breadth, they are few or numerous, near to or far away from each other and the events that happen to them occur in one order or another. In all these ways dream things are like waking things, therefore the fact that he dreams quite fails to establish that his opinion that there are colours, shapes, numbers, space and time is ever mistaken. What is more, the fact of dreaming, he says, fails to show that he is ever wrong in his opinions on simple matters concerning those things since, ‘whether I am awake or asleep, two and three always make five and squares never have more than four sides’. These assertions raise difficulties which are not important for the progress of Descartes’ discussion, since he soon finds means of setting aside the apparent certainties, but do have an interest of their own. Although it is impossible to depict to oneself, in a dream or otherwise, a bodily thing without shape or surface character, or a square facet with more than four sides, it is not impossible to dream that bodily things have no shape and that squares have more than four sides. To dream something that in waking life we know to be untrue, we need not depict or behold it, we may merely dream it, take pleasure in it or fright at it, and, in one way and another, reflect upon it. Squares we behold in dreams must have four sides, but we can dream that they do not; we can dream that squares never do have. The common features of dreams and waking life do not establish that Descartes could not be misled, in a dream, into the opinions that bodily things have no shape or colour, that squares have more than four sides or that two and three make six. However, Descartes’ confusion here, if I am right and it is a confusion, has no effect upon the course of his argument. He wonders for a moment whether he should not rest certain with arithmetic and geometry, sciences which deal, he says, only with simple things like number and shape, and reject physics, astronomy and medicine, which look beyond such simplicities, but he immediately finds reason to reject them all.

He observes that he himself often considers other people to mistaken in arithmetic and geometry, the sciences of the simple things. He sometimes thinks them mistaken when they themselves are most confident. May it not be that he himself is mistaken in his opinions in those sciences, even in those that seem to him most simple and obvious? Actual mistakes by others, on difficult matters that seem easy to them point to the possibility of mistakes on his own part on matters that seem easy to him. Again, a man’s capacity to arrive at correct opinions in arithmetic and geometry depends upon his constitution, upon how he is made. Descartes does not speculate upon what features of his makeup enable him to recognize mathematical truths, nor point out that they are very much more mysterious than the organs and nerves of his sensory apparatus upon which his capacity to perceive what lies
around him depends. He emphasizes only that his mathematical capacities do depend upon his constitution and, to discover what reason he has to believe that his constitution is not faulty and fallible, enquires how he may have come by it, not what it is. He believes himself to have been created by an all-powerful god. Such a god could have brought it about that the sky and the earth did not exist while, at the same time, making Descartes believe, just as he does believe, that they do. If such a god could do that, could he not also ensure that Descartes makes a mistake every time he adds two to three or counts the sides of a square? The god who created the world is said to be good as well as powerful, so he should not have wished so to deceive him, but Descartes knows that, if there is such a god, he sometimes allows him to be deceived.

This argument by which Descartes extends his doubts to the simplest questions of mathematics seems to require that an all-powerful god, or demon, should have power over the truths of mathematics. He argues that, since such a god could have arranged that there is no world and arranged, too, that Descartes seemed to see one, so he could have ensured that Descartes held erroneous opinions on simple mathematical questions. The implication is, presumably, that he could have done so by arranging that two and three do not make five and arranging, also, that to Descartes they seemed to do so. To be able to arrange that two and three do not make five and that squares have more than four sides is to have power over arithmetic and geometry, or, perhaps it would be better to say, arithmetic and logic, it is, of course, absurd to suppose that two and three could have had some other sum than five or that squares could have had some other number of sides than four. Since that is absurd, it is absurd to credit any being with the power of bringing it about. In arguing as he does, Descartes seems to embrace absurdity and, since it is an absurdity, his argument seems invalid. It does not seem to justify doubts about these simple truths.

There is, however, good reason to think that Descartes did not attribute power over such truths to however powerful a god or demon. At the beginning of the second Meditation he explicitly asserts that, in the case of one such truth, the most powerful deceiver would be powerless. What is more, there is an argument, very like his, but not requiring the attribution of such power, which Descartes could have employed to justify his doubts. Very likely it is what he intended. The arguments are, indeed, easily confused. To deceive us about the world, a god needs power over us; he does not need power over the world. If he finds that the world exists, he exerts his power to ensure that it seems to us not to. If he finds that the world does not exist, he exerts his power to ensure that it seems to us that it does. In just the same way, if he finds that two and three make five, he need only work on us to make them seem to us to make six. If he finds them to make six, he need only work on us to make them seem five. If you have enough power over a man, you can deceive him. You don’t need power over the
matters he is to be deceived about. That argument shows that an all-powerful god could mislead Descartes and, if it is possible that such a god exists, it shows that Descartes could have formed and could form erroneous opinions about even the simplest mathematical truths. It shows that Descartes’ mathematical opinions are liable to error, just as his earlier arguments showed that his opinions about the world around him were. However, it does not show quite what Descartes argues for. It shows that Descartes could hold mistaken opinions in mathematics, it does not show that he could be mistaken in the opinions he holds. Now the former, that he could reach mistaken opinions, shows him fallible in mathematics and so shows that he cannot be certain of the opinions he holds, but it is the latter that Descartes asserts. He writes: ‘it may be that he has decided that I make mistakes every time I add two and three or count the sides of a square’ and, later on, at the end of the first Meditation, when he decides to guard against the possibility that he is in the hands of an ill-intentioned deceiver, he decides to reject all these old opinions that he has discussed as deceptions. Evidently, the suggestion is that he should hold all his opinions to be deceptions until he discovers one that cannot be a deception. Now, it cannot be that a god is deceiving him about the sum of two and three, for Descartes believes it to be five and it could not be anything else. It is not possible that his opinion that two and three make five is a deception. If that is the policy he is to adopt, he should admit that, in two and three make five and squares have four sides, he has found what he is seeking.

My point is that, towards the end of the first Meditation, Descartes is led astray. An opinion that cannot be a deception is not the same thing as an opinion on a matter about which he cannot be deceived. What is more, being the former, the one Descartes comes to think important, does not imply that an opinion is something he knows for certain to be true, or even that it is something he has any knowledge of at all. A little child who knows next to nothing about arithmetic may pick up the idea that two and three make five. That would be an opinion that cannot be a deception, but there is no reason to suppose that the child knows it for certain, or in any way at all, to be true. On the other hand, if there is some matter on which the child couldn’t be deceived, such as its parents love it or not, that, surely, is something about which the child has certain knowledge. Of course, the words ‘So two and three may not make five’ could be used to express the conclusion that that is something we do not know for certain. The words ‘may’ and ‘possibly’ are often used to express lack of confidence in the opposite opinion or imperfect knowledge of it, so it is not unreasonable to say ‘I am liable to error in mathematics, even on the simplest questions, so two and three may not make five’. However, Descartes introduces the all-powerful deceiver in order to demonstrate that error is possible over the simplest questions in mathematics, just as, for the same purpose, he points to the mathematical errors of other people. From that possibility of error, once established, he argues to his uncertainty, his lack of
knowledge, even about the simplest matters. There would not be an argument here, if he were merely using the words 'It is possible that I am mistaken in my opinions' to mean 'I do not know for certain that my opinions are true'.

The bogey of an all-powerful deceiver is Descartes' final argument for doubt. He decides to reject as uncertain every one of his opinions that may be the deception of an all-powerful being. He admits that he does not know that he was created and made as he is by such a god, but he argues that upon any other supposition of his origin, that he came to be as he is by fate, or by chance, or by the sequence and linking of events, he is even more likely to have a faulty constitution that leads him into error. Descartes, of course, had no inkling of the explanation that Darwin was to give in his theory of natural selection of how the linking of causes and effects might have provided human beings with faculties adapted to their needs. Awareness of the theory of natural selection should have removed his doubts, since he argues for them from the probability that his constitution and circumstances derive from an all powerful deceiver or from something worse, and natural selection takes away that probability by providing a plausible alternative. I think, however, that the argument Descartes gives here is not quite the one he intended. Consider his reason for doubting, earlier in the Meditation, that he is sitting by the fire writing. It is that he cannot tell whether he is dreaming or awake, not that the probability is that he is dreaming. Why then should he need more reason for his new doubts than that he does not know enough about his origins to be sure that his faculties are reliable? The process of natural selection, even if it could be proved to be the process by which Descartes came to be as he was, does not guarantee that. A sudden change in the environment, a short time before, might have rendered his slowly developed faculties useless.

Descartes argues from his great ignorance concerning his own nature and origins and concerning many things about the world around him, that he possesses knowledge only when, however he is made and whatever the world is like, his opinions will be correct. In his fanciful image, the all-powerful, possibly ill-intentioned god represents his own unknown and possibly defective make-up and the world’s only partially known and possibly hostile nature. I have already pointed out the ambiguity in this conclusion. It may mean that he has knowledge of those, and only those, matters about which, however he is made and whatever the world is like, he will form a correct opinion. It may mean that he has knowledge of those, and only those, of his opinions which, however he is made and whatever the world is like, he will be correct in holding. The former focuses on the matters in question and requires the impossibility of his being wrong about them. The latter focuses on the opinions he holds and requires the impossibility of his being wrong in holding them. This conclusion or, as I think, one or other of these conclusions, provides Descartes with the rigorous test for his opinions that he has been
developing throughout the first Meditation. It is the application of this test that he speaks of as his method of doubt. Where did it lead him?

When, at the beginning of the second Meditation, Descartes starts to test his opinions by the method he has perfected in the first, rejecting as false, or, at least, suspending judgment upon, everything that may possibly be a deception, it seems to be the second of the two ways of guarding against deception that he adopts. He begins to run through his opinions, discarding them if he finds that they could be deceptions. He fears, not unreasonably you may think, that he may be left with nothing. He sacrifices his beliefs in the existence of bodily things, the existence of his own body among them. He almost relinquishes his belief in his own existence, but stops, for he realizes that that cannot be a deception.

No, certainly, there is no doubt that I exist, if I am convinced, or even if I think anything. But there is a very cunning and very powerful deceiver who employs all his efforts to deceive me about everything. There is, then, no doubt that I exist, if he deceives me; and, deceive me as much as he will, he will never find a way of making me nothing, while I think that I am something. So that, having thought well about the question, and carefully considered everything, I cannot but conclude, and henceforth hold, that this proposition: I am, I exist, is necessarily true, every time I affirm it or conceive it in my mind.

So he concludes that there is at least one of his opinions that survives his rigorous test, when it seemed only too likely that nothing would survive it, his belief that he himself exists. He could have found another by an exactly similar argument, although he doesn’t explicitly do so. It is the belief he sometimes had that he holds a belief. If he ever believes that he holds a belief, that cannot be a deception, since the deceiver could never find a way of making him beliefless when he believes himself beliefful.

This is the passage in the Meditations in which Descartes presents the thought known as the cogito. That name comes, of course, from the first word of the Latin for ‘I think, therefore I am’, ‘Cogito, ergo sum’. Descartes did not sum up his thought in that formula in the Meditations; he did use it, but in French, in an earlier work, The Discourse on Method. The account of the cogito in the Meditations is clearer and better than that in the Discourse. The passage, the one I have just quoted at length, is persuasive but very mysterious. It certainly seems to present an argument, and it is rather surprising to find Descartes’ first discovery of an opinion that survives his rigorous test identified by an argument. If an opinion that passes his test is recognized by proving it, then he must already have found an opinion
that passes it, upon which the proof rests. In the first Meditation, before he formulated his rigorous test, the opinions that he considered to be most obviously beyond doubt were ones that required no proof: ‘I am sitting by the fire’ and ‘Two and three make five’. Unless Descartes is very much misled, it cannot be that he offers a proof that he exists from the fact that he thinks in order to show that he is certain, if of nothing else, of his own existence.

Apart from the inappropriateness of such a proof, there is another reason why that cannot be what the cogito passage presents. I have pointed out that the argument would work as well for ‘I believe’, as it does for ‘I exist’. For ‘I exist’ the argument, very much compressed, would go: ‘No one could make me think I existed when, at that very time, I didn’t, therefore “I exist” is necessarily true’. If, in that argument, Descartes were proving his existence from his thinking, then, in the parallel argument for belief, or thinking, which would go: ‘No one could make me think I thought when, at that very time, I did not, therefore “I think” is necessarily true’, he would be proving that he thought from the fact that he thought. Now, the argument is persuasive, and it is as persuasive for ‘I think’ as it is for ‘I exist’. It cannot be as silly and empty as ‘I think, therefore I think’. I seem now to be admitting that the passage does present an argument and, indeed, I think it does. If it is not the argument ‘I think, therefore I am’, what argument is it? The premise, at least, is not difficult to identify. It is the fact upon which Descartes insists, that however an all-powerful deceiver exerts himself, he will never bring it about that Descartes believes that he exists when, at that very time, he does not. His premise is: whatever the deceiver does, if I think I exist, then I exist. When I said, earlier, that Descartes did explicitly deny that an all-powerful god would have power over a simple truth it was this passage that I was thinking of. He can hardly have thought it less necessary that if I am square I have four sides than that if I think I exist then I exist. Now, from that premise, it follows at once that Descartes could not be mistaken in his opinion that he exists. Whatever the deceiver does, Descartes will not be mistaken in holding that he himself exists. Since that is exactly what must be true of an opinion of his, if it is to pass his rigorous test and be counted as known for certain, or, at least, if it is to pass one of the two tests his words ambiguously express, Descartes can consistently conclude that his opinion that he himself exists passes his test and can be counted as one thing that he knows for certain to be true. The parallel argument in which ‘I think’ replaces ‘I exist’ proves, just as validly, that he cannot be mistaken in his opinion that he thinks. The arguments are not proofs of the propositions I exist’ and ‘I think’ that pass the test; it would be absurd to offer such a thing: they are proofs that they do pass it.

It is that fact, that the arguments are not proofs that he exists and thinks but proofs that, in believing that he exists and that he thinks, he knows that he exists and that he thinks, that explains why it does not matter that the premises of the arguments, that he cannot, without existing, believe himself
to exist or, without thinking, believe himself to think, are simple truths of logic, less obvious, if anything, than ‘squares have four sides’ that Descartes admits that he may be mistaken about.

Descartes’ knowledge that he exists and that he thinks arises, if the cogito argument is correct, from the simple logical facts. It does not arise from his knowledge of those facts. Everyone who believes that he exists, knows that he exists, whether or not he knows that he knows it. Knowledge must, if Descartes’ strict conditions are to be fulfilled, arise from facts of logic. It cannot arise from men’s intelligence, powers of reasoning or perceptual faculties, for all of those may be disturbed by illusions, emotions or drugs, and may have built-in defects. Only a logician, probably, will notice the simple logical fact that a man cannot, without existing, believe himself to exist, so only a logician will know that he and everyone else know themselves to exist. Nevertheless, everyone will know the fact, that he himself exists, that only the logician, Descartes, knows he knows. No knowledge of logic or power of reasoning is required for that. If the cogito is correct, everyone who believes he himself exists, knows it.

The Meditations show clearly how the formula ‘I think, therefore I am’ should be modified to provide a less misleading short-hand for the cogito argument. Expand ‘I think’ to ‘I think I am’ and replace ‘therefore’ by ‘If…, then…’: ‘If I think I am, I am’, a formula which brings out the peculiar feature of thinking that you exist: the truth of what you think is implied by your thinking it. If you think you exist, you do exist, because if you think anything, you exist. If you think that you think, you do think, because if you think anything, you think. If you think that you are a being with an understanding, then you are a being with an understanding, because if you think anything, you are a being with an understanding. Gassendi commented that Descartes might as well have employed any of his actions to prove his existence, since he could not walk without existing or see without existing: ‘it being manifest by the natural light that everything that acts is or exists’. ‘If I think, I am’ leads on to ‘If I think I am, I am’ and to the impossibility of mistake. It is true that if I walk, I exist but, since there is no such thing as walking that I exist, it leads nowhere. Bertrand Russell was misled into supposing that Descartes’ argument relied upon the immediacy of thought whereas it establishes both the logical immediacy of thought and the logical immediacy of existence. Russell allowed that, when he himself was thinking, he knew that a thought existed but questioned the inference to the existence of a thinker of that thought. The cogito argument would work for thoughts, since if there were no thoughts, no one could think there were, but Descartes had no need to argue from thoughts to a thinker. He could deal with ‘I think’ and ‘I exist’ directly.

In Descartes’ proof logic, not psychology, is fundamental. That is entirely in accordance with his philosophy, since his rationalism puts what can be discovered by reason at the foundation of everything, but for others it cannot but serve as a warning that something, somewhere, is wrong with
the argument. It can hardly be that there is an item of knowledge which humans owe solely to a logical
truth. Where does the mistake lie?

The argument builds two conclusions, one upon the other. The first is that I cannot be
mistaken in believing that I exist; the second, that if I believe I exist, I know that I do. The first
conclusion, as I have already shown, is sound. The second is unsound. I pointed out the mistake and
how it arises when I pointed out the ambiguity of ‘Mistake here is impossible’. The way that ambiguity
applies to the second step of the *cogito* can he easily seen by considering a parallel argument with the
same two steps.

First, two and three cannot but make five, therefore no one can be mistaken in believing that
two and three make five. Second, no one can be mistaken in believing that two and three make five,
therefore everyone who believes that two and three make five knows that two and three make five. In
this argument, as in Descartes’ *cogito* argument, the first step is sound. No one can be mistaken in
believing that two and three make five. The reason for the impossibility of mistake is not the same as in
Descartes’ argument: here it is the impossibility of two and three not making five, there it was the fact
that, unless you exist, you cannot believe that you exist, but the impossibility is present just the same.
Since every mathematical fact is as necessary as ‘two and three make five’, the same manner of
argument would show that anyone who believes any arithmetical fact knows that fact to be true, yet, as
Descartes himself affirms, people are notoriously liable to be mistaken about difficult questions in
arithmetic. Evidently, the fact that you cannot be mistaken in believing something does not at all show
that when you believe it you know it to be true. You might, for example, have arrived at your belief by
making two mistakes, one cancelling out the other, or you may have taken the word of some quite
unreliable or deceitful source who wished to misinform you but has miscalculated and unwittingly
given you the right answer. The fact that you cannot be mistaken in believing something seems to show
that you know it because it seems to show that it is impossible that you should have been mistaken
about the question to which it is an answer. In fact, you could very easily have been mistaken about
whether two and three make five. How? By believing them to make six.

Compare the consequences of the fact that two and three cannot but make five with those of
the fact that it is a ridiculously simple arithmetical proposition that two and three make five. The first
has the consequence that you cannot be mistaken in believing it, the second that you cannot be
mistaken about it. The simplicity of a proposition of arithmetic has the effect that, if it is true, you
believe it true, if false, you believe it false. That is why you are right to claim knowledge of the simple
arithmetical truths. Of course, your knowledge does not come up to Descartes’ requirements, it
depends upon your make-up and an evil god could deceive you, but your immunity from error, both
less and more than Descartes required, is very close to knowledge. Certainly, it is closer than the Cartesian immunity of anyone, even a complete idiot, who believes that two and three make five. The strange thing is that Descartes saw this about the simple truths of arithmetic. He saw that forming a correct opinion about them, and being able to learn to form a correct opinion about them, depended upon how he was made. For that reason he did not count them as truths known for certain. How did he miss the fact that the opinion he formed about whether he existed also depended upon how he was made and should, likewise, have not been counted as known for certain? It may have been because, although Descartes approached the question 'What do I know for certain?' by enquiring into his own powers, not by enquiring into the matters he held opinions about, passing events, mathematics, mechanics and meteorology, he did not succeed in keeping to his method. He fell into something between the two enquiries and mistook a dead end for a way out. Had he held his line, he might have found no way out and come to suspect that the trouble lay, not with his own powers, but with the over-rigorous demands he was making upon them. Such a suspicion does indeed begin to dawn upon him at the beginning of the third Meditation. There he suggests that his doubts have been rather unreal, his actual words are ‘bien légère, et pour ainsi dire, métaphysique’, ‘very light, and so to speak metaphysical’, since he hasn’t any reason to believe that a deceiving god does exist. However, it is not doubts about the validity of his cogito argument that inspire his retraction, it is the hopelessness of building upon the certainties that he exists and thinks to restore the sensory knowledge he cannot get on without. As we shall soon see, he does build a good deal upon them, a good deal more than they can stand.

You might be tempted to think, faced with the refutation of the cogito argument as I have interpreted it, that my interpretation is wrong. Perhaps what Descartes does, you might say, is to derive from the simple truth that, if I think I am, I am, a policy for forming a true opinion about my existence. ‘I don’t know whether or not I exist’, he says to himself, ‘but I do know that if I believe that I exist, I exist, so I will adopt the opinion that I exist. I will adopt it, not because there is any reason to think it true, but because, if I adopt it, it will be true.’ Now, I don’t myself think that anyone who adopts a belief solely out of policy, even with the best motives, knows that belief to be true; but, however that may be, if Descartes argued in this way, he would have had no excuse for thinking that he had escaped the deceiver’s powers. He would not because, although he would not be deriving his existence from a premise about which he might be deceived, he would be justifying his policy by such a premise. It is a simple truth that if he thinks he exists, he exists, but he might have been so made that he didn’t see its truth, thinking benightedly instead that if he thought he existed, he would not exist, and so adopting a
policy of believing he didn’t exist. That would be, obviously enough, a policy that would lead him into error.

The fairy-tale malicious god makes Descartes’ doubts seem frivolous. In fact, they are a natural extension of quite ordinary doubts about our senses and our minds. We can be deceived by concealed mirrors, our thinking can be set astray by nervousness or by drugs. The insistence that, unless we know that such factors are not operating, we cannot be certain of the things we seem to see and the things we seem to prove is a compelling one. It demands an answer. Descartes’ claim that there is knowledge owed solely to a simple logical fact would, if it were correct, provide such an answer. It meets the problem squarely and, however implausible it now seems, it had to be explored, if only to be put aside. It was not the only answer he gave in the Meditations. The knowledge that he existed and thought proved too limited, exploit it as he might.

One of the ways in which he does so is to argue, at the beginning of the third Meditation, that there is nothing peculiar in his having the knowledge the cogito has shown him to have, except his clear and distinct perception of the fact he knows. Such a perception could not yield knowledge if it could ever lead him astray, therefore everything that he perceives very clearly and distinctly is true. Here, he argues back from the fact that he knows that he exists, to a conclusion about his manner of reaching that opinion. It must have been reliable, or it would not have led him to an opinion he knows for certain to be true. This argument is outrageous. It quite ignores the fact that he proves his certainty of his own existence by proving the impossibility of his being mistaken in believing it, an impossibility which has nothing to do with his manner of arriving at the belief, would be present however he arrived at it and arises solely from the fact that he cannot, without existing, believe that he does exist. The truth is that, far from validating clear and distinct perception as a route to knowledge, the cogito argument, in Descartes’ hands, discredits it, for the argument separates the things he perceives clearly and distinctly into two sorts: those, such as ‘I exist’, that are beyond doubt and those, such as ‘two and three make five’, that are not.

Nevertheless, Descartes does, henceforward in the Meditations, accept that he knows those facts of which he has a clear and distinct perception. When speaking of perception, he is certainly using the term to cover an intellectual faculty and almost certainly using it for an intellectual faculty alone, since, in the argument I have just been complaining of, he speaks sometimes of perception and sometimes of conception without, apparently, intending anything different. Of course, it is common to speak of perception when the senses are not involved as when we say such things as ‘I saw at once that the argument was valid’ or ‘I saw that it was no use reasoning with him any longer’. Descartes’ conclusion, in the argument I have been complaining of, that nothing that he clearly and distinctly
conceives can be false shows, too, that the intellectual perception he has in mind is a clear grasp, or understanding, of a fact. He has reached the conclusion that a clear understanding of a question is enough to reveal the answer to it. That conclusion enables him, in his later meditations, to accept that he does know the simple truths of mathematics and logic.

Even that retraction leaves him in doubt concerning the evidence of his senses. He needs some way of setting a limit to the frailty of his sensory faculties. There would be such a limit, he considers, if there was no possibility that they were not the gift of a well-intentioned all-powerful being. That would mean, of course, that what he supposed possible in the first Meditation, that there could exist an ill-intentioned all-powerful being, was not possible. An ill-intentioned creator cannot be a possibility, if a well-intentioned one is a necessity. His argument in the fifth Meditation is intended to show, not merely that there is a god, a benign, omnipotent being, but that it is a logical necessity that there is. That can be seen, he thinks, by understanding clearly the implications of being perfect. A non-existent being is less than perfect. Since man is the creature of a perfect being, he cannot but have faculties that, rightly used, lead him to truth rather than falsehood. I shall barely enter into a discussion of that argument; I have outlined it only to point out that here, as with the cogito, Descartes sets out to establish that our holding a false opinion, provided in this case we take certain precautions, is a logical impossibility. It is not such a simple and obvious impossibility as not existing but thinking that we do exist, but it was nevertheless, so Descartes thought, an impossibility: not existing but being perfect. This argument has been much criticized, notably by Immanuel Kant in *The Critique of Pure Reason*. His simplest, but very effective, criticism was that Descartes’ impossibility is no more than the necessity that if any being is perfect, it exists, from which it does not follow that there exists a perfect being. However that may be, this argument of Descartes’ founds all our knowledge upon a simple logical truth. In his metaphysics, his view of the fundamental nature of the world, God stands high but the simple logical truths stand higher. Remember what he says at the beginning of the second Meditation, that no powerful and cunning deceiver can bring it about that he is nothing while he believes that he is something. If the logical truth that if he thinks he exists, he exists cannot be subverted by an all-powerful being, neither could it have been created by one and neither could the truth that to be perfect, a being must exist, the truth, if Descartes is right, that implies that there must be a god. It is the logical necessity of there being a benign god that upholds our knowledge. The god that there must be is not responsible for that logical necessity. No doubt that explains why Descartes’ hope that his philosophy would be adopted by the Catholic church came to nothing. The church, understandably enough, was not prepared to see God playing second fiddle to squares have four sides. I have sought to show that, in one way or another, Descartes bases our possession of any knowledge at all upon a logical fact: in one argument upon the
fact that to think he exists implies existing, in another, upon the fact that to be perfect implies existing. I have argued in some detail that the former can provide no such basis but have only indicated an argument that the latter can do no better. Once Descartes had accepted that his doubts were justified, only faulty reasoning enabled him to avoid the conclusion that he knew no single thing. Had he argued correctly and reached that conclusion, then, to say the very least, he should have returned to re-examine the justification for his doubts. Now his justifications were of different kinds, but, since his conclusions were reached by accepting his most extreme doubt, it is the justification for that extreme doubt that must be re-examined. As I pointed out, his stated justification is the probability that he was made by a god who may be a deceiver or in some worse way. That contention never carried much conviction, as he himself comes to admit, and, once seen to have the fearful consequences it does have, will carry even less. I suggested that it was not his real justification, which was the one implied by the test to which he subjects his opinions: would it be possible for me to be mistaken about this matter? His justification for his most extreme doubt is that the matter is one for which the possibility of his forming a wrong opinion exists. What should we think of that?

I don’t know that I can prove it, but my own opinion is that we should think it worthless. Far from being a reason for thinking that we do not know something, the possibility of forming a wrong opinion is a reason for thinking that perhaps we do know it, since one requirement for knowledge, that here is a matter on which our choice can be right and can be wrong, is fulfilled. Consider an example where it is not fulfilled, a novelist’s writings, in his novel, concerning the doings of his characters. If he writes that the hero won through, then the hero did win through; if he writes that he did not, then he did not. The author cannot possibly be mistaken. Here are statements for which Descartes’ rigorous condition is fulfilled, yet here there is no question of knowledge. The statements in a novel do not express knowledge of anything. They have quite another function. Of course, one such example proves nothing. All I can do is to suggest that, for knowledge, the possibility of a wrong choice must have existed but the one who knows will have been clever enough to avoid it.