

The Nature and Origin of Ideas: The Controversy over Innate Ideas Reconsidered

THE INTEREST of philosophers in the thought of the past is seldom just a matter of historical curiosity; it is generally motivated by a concern with issues that still actively engage us, and by a hope that previous thinkers may provide help towards a clearer understanding of them.¹ Anyway it is with such a motivation that this paper has been written. Within the study of epistemology the questions of the origin of knowledge and of the nature of thinking occupy, along with the question of justification, central positions, and the present reflections on the thought of Descartes and Locke with respect to the controversy over innate knowledge are meant, first of all, to be a contribution towards the clarification of these two topics. Descartes and Locke are, however, philosophers of the first rank, and it is they who have been largely responsible for the place that epistemology has come to occupy in philosophical study; their own manners of procedure, the questions they raise, and the theories of rationalism and empiricism that they respectively propounded have had a profound effect on subsequent epistemological thinking.

I hope, therefore, in the second place, that these reflections will also be useful in a general way, inasmuch as the exposure attempted here of the logical structure of their reasoning, will, by contributing to the understanding of their thought, contribute also to the understanding of ideas that are influential in contemporary treatments of epistemological themes, and which are so in part because of that reasoning. Thirdly and finally, I hope these reflections will encourage a fresh look at ideas first put forward by

Aristotle, which may appear on the surface to be strange and of little permanent value, but which in the light of the present discussion will emerge, I think, as quite constructive and at all events well worth pursuing further.

Before I proceed to my argument, however, I ought to make one thing clear. My interest in the views of Descartes and Locke in this paper is philosophical, not historical. That is to say I intend to compare and contrast them with respect to content and reasoning and I am not concerned with how they were in fact compared or contrasted by the individuals in question. So, in particular, I leave aside the fact that when Locke attacks the doctrine of innate ideas he does not so much have Descartes in mind, as rather certain English thinkers.²

A. DESCARTES AND LOCKE: THE ARGUMENTS

It seems clear from a perusal of the writings of Descartes and Locke that what principally divides them is that the former does, while the latter does not, accept the existence of innate knowledge. Locke indeed devotes the first book of the *Essay* to an attack on such knowledge, and empiricism, the doctrine he developed, is basically the claim that all knowledge is acquired by experience and cannot, as rationalists thought, be spun out of innate principles in the mind. However, I shall try to demonstrate that because of an assumption they both shared in opposition to previous thinkers the disagreement on this issue is in fact a transformation of a different and deeper disagreement. In order to show

¹ I would like to express my thanks to the Reverend Professor Connell of University College Dublin for reading an earlier draft of this paper and for making several helpful suggestions.

that this is so, I will begin with a review of the arguments used on each side relative to the question, followed by an assessment and comparison of them.

One may divide Locke's criticism of innate ideas into a negative and a positive part; the negative part attempts to refute the reasons advanced for innate knowledge, while the positive part gives reasons against such knowledge. As regards the first division, the major argument that Locke maintains is used to support innate knowledge is drawn from universal consent; but, says Locke, there is no knowledge that all men consent in, and even if there were it would not thereby be proved innate unless one also showed that no other explanation would do.

Further, the various shifts and qualifications resorted to to explain the apparent lack of universal consent, namely (a) that the knowledge is in all men, but implicitly, (b) that use of reason is required first before the knowledge becomes actual, (c) that the knowledge is admitted as soon as proposed, are all inadequate. As regards (a), 'implicit knowledge' either means that the mind is capable of possessing such knowledge or it means nothing, for to say that the mind has knowledge it does not know is nonsense; but being capable of coming to know applies to everything we know and so will prove all knowledge innate if it proves any to be so, and this Locke's opponents do not want to admit.³ As regards (b), use of reason, how can reasoning be required for knowledge which, as innate, must be regarded as existing prior to reasoning? And anyway, some men who clearly can reason do not know those principles said to be innate. Moreover, since the only sense the phrase 'use of reason' can bear is that it refers to knowledge that

² See, for example, *John Locke and the Way of Ideas* by J. Yolton (Oxford: Oxford Univ. Press, 1968), ch. 2. Cf. also Chomsky, *Language and Mind* (New York: Harcourt, Brace and World, 1968), pp. 70, 86 note 14.

is not known or taken notice of before one comes to the use of reason, and since this is true of all knowledge, it will again follow that no knowledge is innate, and this is more than the proponents of this argument want to admit. The same criticism will apply also to (c), knowledge recognized on first proposing, for many things are known on first proposing that have not been accorded the title of innate.⁴ One can, therefore, summarize this destructive side of Locke's criticism as follows: supposed innate knowledge does not have what is held to be the sign of innateness, namely universal consent, and all efforts to overcome this difficulty fail altogether, or if they prove anything prove all knowledge to be innate including what it is generally admitted is not so.

Locke's positive criticism draws attention to evidence that argues the opposite of innateness. First, he says, the knowledge that is actually first in time for us is of particulars, universals being only understood afterwards when one has learnt the difficult task of abstraction. But all supposed innate principles are universal and so, far from being first, as they ought to be if they are innate, must be last of all. Second, the ideas that occur as the terms in these principles are not present in the minds of all men, and, being universal, must follow the particulars that are visibly first for us, so they cannot be innate either; and neither, therefore, can the principles that use them be innate. Third, no sense can be given to the notion that there is knowledge in a mind which it has never yet perceived, for any idea that the mind has never perceived was, says Locke, never in the mind, and whatever idea is in the mind is either a present perception or was so and is now preserved in the memory.⁵

³ This would confirm, incidentally, that Descartes was not Locke's target here, since Descartes did, as I have suggested, think all knowledge was innate.

⁴ *Essay on Human Understanding*: Bk. 1, ch. 2.

⁵ *Essay*: Bk. 1, ch. 4.

Turning now to Descartes, he makes a division of ideas into innate, adventitious and factitious, but he regards this division as provisional and, in fact, it turns out that though there are differences between these types of ideas all of them must, in the end, be considered innate.⁶ In the passage just mentioned Descartes includes the following among those ideas he provisionally calls innate: a thing, a truth, a thought. He gives these reasons for considering them innate. First, when one examines a piece of wax, the idea of this as a thing, or as an enduring and self-identical object, cannot be derived from sensation because all the sensible qualities may change while the wax yet remains the same piece of wax; so it must be innate. Second, it is possible to form in one's thought clear conceptions of an infinity of geometrical figures that one has never perceived through the senses, and, further, these conceptions are quite different in character from sensible impressions and images because while one can form a clear conception of a chiliagon, say, as a thousand-sided figure, one can by no means form a clear sensible image of one; therefore these ideas too must be innate. Third, the ideas of God and the soul cannot be sensible or derived from sensible ideas because there is nothing sensible about either of them. Fourth and finally, there are universal principles such as 'Things equal to the same thing are equal to each other' which cannot be derived from something particular such as sensible ideas are.⁷

If one views these arguments together, one may say that what Descartes is basically doing is adverting to certain facts about our knowledge that point to a difference in kind between sensations and imaginations on the one hand and thoughts on the other,

⁶ Descartes, *Third Meditation* in *The Philosophical Works of Descartes*, trans. Haldane and Ross (Cambridge: Cambridge Univ. Press, 1911, in 2 vols.; hereafter referred to as *HR*), 1, 160.

⁷ *First Meditation*, *HR*, 1, 154ff; *Fifth Meditation*, *HR*, 1, 180; *Sixth Meditation*, *HR*, 1, 186, *Discourse*, *HR*, 1, 104; *Notes against a Certain Programme*, *HR*, 1, 443.

or between what one may call sensible ideas and intellectual ones. But (and this is significant) he regards it as sufficient to point this out to be able immediately to conclude that intellectual ideas cannot be derived from sensible ones, and must therefore be innate.

As regards those sensible ideas which Descartes provisionally classified as adventitious, these also, he maintains, must be acknowledged as innate. This is because of certain convictions he has about the nature of physical things, for he holds that bodies are just extended things capable of motion and that all that is really in the senses when stimulated by external bodies is corporeal movements and nothing else. Consequently the sensible ideas we actually experience, as colors, sounds, tastes and so on, which clearly have no likeness to the corporeal movements, cannot be derived from them and must be innate in the mind so that they can be envisaged by the mind on the occasion of the relevant stimulus. Finally, as regards those ideas provisionally classified as factitious, since these are just made up of other ideas, they too must be acknowledged as innate, at least with respect to their materials.⁸

Such, then, is a brief summary of the reasonings of Descartes and Locke about innate knowledge. Now I do not intend to examine each argument in detail (that would take too long and is, anyway, not necessary for my purpose), but a general remark is here in order. What is particularly noteworthy is that, in the case of Locke, his attention is principally directed to the observable phenomena about the state and growth of knowledge among men and he pays little attention to the precise character of that knowledge. The reverse, however, is true of Descartes, for what tends to impress him and make him opt in favor of innate ideas is that the content of our knowledge is such that it cannot be accounted for in purely empirical terms. It is worth pointing out that a similar

motivation lies behind the thinking of others who have adopted a theory of the innate-knowledge type. One thinks, for example, of Chomsky with his generative grammar that underlies all languages and is genetically inherited, for he holds language-ability to be too complex to have been acquired by experience alone;⁹ one thinks also of Kant who felt compelled to posit, if not innate knowledge, at least innate forms of knowledge, or a priori concepts to explain the universality and necessity of the propositions of science. One is tempted to suggest that in proportion as one concentrates on those aspects of the question that impressed Descartes, on the one hand, or Locke on the other, so one will incline accordingly for or against belief in some kind of innate knowledge.

B. DESCARTES AND LOCKE: THE ARGUMENTS COMPARED

What I wish to do now, having summarized the arguments, is to examine how far and in what ways it is, in theory, possible to construct a defense for the position of each against the criticisms of the other. I will take Descartes first since he is rather easier to deal with and since the longer discussion required for Locke will lead onto more involved issues.

Descartes need not be much embarrassed by Locke's negative criticism because he does not appeal to universal consent in support of his position. In fact such consent might appear to him unattainable in existing conditions because of the way men's thought is corrupted, in his view, during the long period of their immature and un-discriminating

⁸ *Notes against a Certain Programme*, HR, 1, 443.

⁹ See, for example, the extracts printed in S. P. Stich, *Innate Ideas* (Berkeley: Univ. of California Press, 1975); also Chomsky's *Language and Mind* (cited above in note 2), especially chapter 3. It is significant that Chomsky typically presents his views about innate grammar in opposition to empiricist accounts of language and knowledge-acquisition; he is also keen to mark his basic agreement with the rationalist tradition.

youth. The practice of the method of doubt is an absolute preliminary to genuine knowledge and not all men are capable of that, so it would be unreasonable to expect them all to assent to the same things.¹⁰ Further, as Descartes is prepared to say that all knowledge is innate he would escape all the objections that Locke makes on this score.

The first two parts of Locke's positive criticism would cause Descartes as little trouble. Since he regards all knowledge as innate, it hardly matters which parts of it are recognized first. But, anyway, it is only reasonable to expect that beings whose life, from its very beginning, is lived so much in the senses, should become conscious first of the part of their innate knowledge that concerns sensible particulars. In fact, the predominating influence that such ideas have over men's thinking just reinforces, for Descartes, the need for a proper method to overcome it.

The only argument of Locke's that might cause a problem for Descartes is the final one that it makes no sense to talk of knowledge that is not known, as one does if one says that all knowledge is innate but yet brought to consciousness only after time and learning. Descartes' response on this point would be to the effect that innate knowledge is such that one can draw it out of one's mind, not that one is always conscious of it,¹¹ so he might well argue that there is no contradiction involved since one is not talking of knowledge that is not known but about ideas that have a twofold manner of existence: first unconsciously, when they are not known, and second consciously, when they are. In other words 'being in the mind' does not mean 'being known' as Locke maintains.

Nevertheless, even if one says this, one must recognize that there is a difference between the unconscious knowledge that has been learnt but is not being reflected on,

¹⁰ *Discourse, HR*, 1, 90. *Replies to Sixth Objections, HR*, 11, 251-52.

¹¹ *Replies to Third Objections, HR*, 11, 73.

and knowledge that is supposed to be possessed unconsciously but has never yet been learnt. The former knowledge can be brought to mind more or less at will, but the latter cannot. It was at this point that Plato, for instance, had recourse to the supposition that the soul had learnt things before birth but had forgotten them in being born, so that learning now is in fact a kind of remembering. Apart from the implausibility of this idea in itself, the sense given to 'remembering' here must be quite different from the ordinary sense it bears when referring to that mental process (with which we are all familiar) of recalling things we have once learnt in this life, and it is arguable that in thus transferring the term Plato has evacuated it of any meaning accessible to us.¹² And similar remarks might be made of Descartes with respect to the unconscious possession of innate ideas. But however that may be, I think it is here that Descartes' position is most vulnerable. When one considers the role that experience as a matter of fact plays in the generation of our knowledge (and in this respect, at any rate, Locke's reflections are very much to the point), Descartes' thesis, despite all he has to say in favor of it, seems somehow out of line.¹³

Turning now to Locke and in what way his position could be defended against Descartes, there is first of all Descartes' reason for making sensible or adventitious ideas innate. Locke had similar materialist views to Descartes and likewise believed that all that was real in things was corpuscles and their motions; his classic division into primary

¹² Cf. Locke's remarks in *Essay*: Bk. 1, ch. 4, sect. 21.

¹³ There is in fact a more general puzzle about the supposed unconscious possession of innate knowledge in Descartes that raises important questions for understanding his theory. Since he equates the essence of the soul with thinking how can he also hold that there are in that essence ideas which are not thought on? Prima facie it would seem that something whose essence is thinking would always think whatever knowledge it possessed innately within itself. For a discussion of this and related problems in the interpretation of Descartes, see, for example, Genevieve Lewis, *Le Problème de l' inconscient et le Cartésianisme* (Paris, 1950).

and secondary qualities reflects that belief.¹⁴ Why then is his conclusion different since he accepts the premise? There is some evidence that Locke did feel the force of Descartes' argument here, for he says that it is God who "annexes" sensible ideas to such and such motions in the sense organs.¹⁵ How far Locke was aware of the significance of this remark is unclear, but what it effectively amounts to is the admission that the motions by themselves are incapable of causing the ideas and that it is necessary to have recourse to some other cause, God, to account for them. Certainly there is, for Locke, no discoverable connection (and so no discoverable connection of causality) between motions and bodies, or primary qualities, on the one hand, and tastes and sounds etc., or secondary qualities, on the other.¹⁶

It is clear from this that, if not as explicit on this point as Descartes, Locke evidently felt its force sufficiently to speak as if God rather than the corporeal motions was the cause; the motions would at best be occasions for divine activity.¹⁷ And if this is so, then the question at issue reduces to the manner of this divine activity: does God implant the ideas once for all in the nature of the soul, to be made conscious on the occasion of the appropriate stimulus, or does he implant them afresh each time? Descartes takes the former view, and, if "annex" can be pressed, so, it seems, would Locke; thus they would hardly differ from each other at all.

In this light Locke would turn out to be almost as much a believer in innate knowledge as Descartes. Certainly he would be more a believer than those he attacks in

¹⁴ *Essay*: Bk. 11, ch. 8, sects. 9 ff.

¹⁵ *Essay*: Bk. 11, ch. 8, sect. 13; Bk. IV, ch. 3, sect. 6.

¹⁶ *Essay*: Bk. III, ch. 3, sect. 13.

¹⁷ To be ready to attribute some sort of occasionalism to Locke on such a slim basis as this may seem a bit hasty. I can only say in defense here that his views on this point must at least be pushing him in that direction.

his Essay, for they only posited some innate knowledge, but Locke would virtually be saying that all knowledge is innate, at least all sensible knowledge. This is a paradoxical result for it seems to overturn Locke's empiricism completely. In fact it does not so much destroy empiricism as bring to light its precise nature. Locke's thesis will not be much affected if sensible ideas turn out to be innate rather than received from without, for what he is principally contending for is that all knowledge is derived from sensible knowledge (whether directly in the case of outer sensation or indirectly in the case of inner reflection), and whatever the origin of sensible knowledge, the dependence of other knowledge on it would remain unaffected. (So, to this extent, he would still remain in disagreement with those he attacks in his Essay, for the innate knowledge they seem to have been arguing for was knowledge that was not thus derived, but was non-sensible in character.)

It is at this point that one must consider Descartes' arguments that we do have knowledge, intellectual knowledge, that is not derived from sensible knowledge and differs from it in kind. Locke does not directly confront such arguments, but he does say enough about the generation of our knowledge for us to be able to judge how defensible against them his attempt to show that it is all derived from the ideas of experience would be. The important tests concern his explanations of such things as substance, infinity, and abstract ideas.

As regards substance it is difficult to regard Locke's position as anything other than inconsistent. It is, according to him, not a distinct, positive idea and is not derived from sensation or reflection; it is a relative idea, a "something I know not what."¹⁸ Locke seems to attribute the origin of this idea to an inner compulsion of thinking which does

not allow us to suppose ideas can exist without a subject or support for them. Now this, interestingly, brings him close to Descartes for whom substance is an innate intellectual idea that is necessarily present in the mind's thinking. Moreover, the idea of substance, if one is going to talk about a something that supports other ideas (its "accidents"), can be thought in separation from those accidents, and as such it is a distinct idea. In fact, as Descartes' wax example helps to show (and as his scholastic teachers would have argued), substance is the idea of the thing itself, considered, however, without consideration of its qualities; it is thus a positive idea as well, the idea of the thing as taken under the aspect of self-subsistence, as opposed to the ideas of its qualities, its shape, or color, which are ideas of the thing as taken under the aspect, not of its existing purely and simply, but of its existing in a certain way, as round or white. Locke does not take this line, and principally, one supposes, because substance understood in this way is not reducible to any impressions or images of sensation. But if so, he would have been more consistent to have followed Hume and refused to admit the idea of substance at all.¹⁹ If Locke would have been unhappy about such an extreme answer and felt it necessary to posit substance as a genuine part of the idea of a physical object, then one must say that he has in effect made an important concession in favor of Descartes, for it becomes difficult, if not impossible, to regard substance as an idea of purely empirical origin.

Similar problems arise with respect to the idea of infinity. Here again, says Locke, we have no positive idea, only a negative one that is positive insofar as it includes some determinate size or length and negative insofar as it includes the idea of an in-

¹⁸ *Essay*: Bk. 1, ch. 4, sect. 14; Bk. It, ch. 23, sects. 1-2.

¹⁹ Hume, *Treatise*: Bk. 1, pt. 1, sect. 6.

determinate amount more.²⁰ In the whole of Locke's discussion, judging by the argumentation and the examples used, there is a persistent confusion of the notion of infinity with the image of something infinite. Locke only succeeds in showing that we can form no image of an infinite thing (which is perhaps a truth too obvious to justify the amount of space devoted to it), and he leaves out altogether any mention of the notion of infinity, of the 'what it is' of infinity. Aristotle defines the infinite as that of which there is always something more (and in this he is followed by Aquinas),²¹ which seems clear and positive enough. Locke's failure to take notice of this illustrates the basic thrust of his empiricism, for his implicit argument (which accounts for the confusion just mentioned) is that if infinity is an idea derived from the senses it must be analyzable in terms of the immediate sensible data, namely sensible qualities and images. His empiricism, in other words, amounts to the claim not just that knowledge is derived from sensible experience, but that it is reducible to those very sensible impressions.

This talk of sensible impressions and images reminds one of Descartes' remarks concerning the chiliagon when he distinguishes between thought and imagination. He argues, and correctly, that there must be a difference between these two, for while we have a very clear conception of what chiliagons and other many-sided figures are, that is of their specific nature, we can form no clear image of them. Now Locke is prepared to talk of natures and essences, but what he means by them is just a collection of simple ideas or images to which a single name is given; he does not mean an intellectual concept as Descartes does.

²⁰ *Essay*: Bk. 11, ch. 17.

²¹ Aristotle, *Physics*: 207a1; Aquinas, commentary ad loc.

That this amounts to a deficiency in Locke's thought is further illustrated by what he says of abstract ideas. We arrive at these, in his opinion, by removing from the several particulars we perceive—Peter, James, Mary, Jane—what is peculiar to each and retaining what is common to all—man. Abstract ideas are thus particular ideas narrowed down, or partial ideas of more complex ones.²² Berkeley's celebrated attack on this view is convincing: no idea whatever can be without characteristics that make it a particular.²³ This criticism is correct when 'idea' means, as it does in this context, a sensible image, but if one is talking about intellectual concepts, not images, as Descartes is when he mentions universals, the same objection does not arise, for these are understood as not being bound by particularity.²⁴

C. DESCARTES AND LOCKE: THE REAL ISSUE

Having examined and compared these arguments, it remains to consider what they tell us about the differences between Descartes and Locke. I think it can quite readily be seen that the point at issue between them is not the existence or non-existence of innate knowledge but the difference between imagining and sensing, on the one hand, and thinking (or what Descartes calls pure intellection), on the other. Locke's distinctive thesis, and indeed what empiricism basically amounts to, is the denial that there is any such difference, or in other words the reduction of thought in effect to imagination. This is true despite the fact that Locke posits reflection as a source of knowledge in addition to sensation, for this really makes no difference since not only do the ideas of reflection

²² *Essay*: Bk. 111, ch. 3, sects. 7-9.

²³ *Principles of human Knowledge*: Intro., sect. 10.

arise from the mind's perception of its own operations about sensible ideas, but this reflection is itself said to be a kind of inner sensation, and so is, in principle, no different in its cognitive character from sensation proper.²⁵ Nevertheless, as the examples of substance and abstract ideas indicate, Locke is not as thorough-going as his reductive thesis requires him to be. He seems to have remained aware, possibly because of his closeness to the scholastic tradition, of elements of thought with which his thesis does not square, but which he felt it was somehow necessary to fit in. Despite this, however, his successor, Berkeley, had no doubt about the bearing of that thesis. For him what Locke meant by 'idea' was 'sensible image' as is clear from his attack on Locke's abstract ideas. Hume is even more explicit about the reduction of thought to imagination, declaring that all knowledge resolves itself into impressions, that is immediate sensible experience, and ideas, that is their "faint images in thinking and reasoning";²⁶ it was he, above all, who carried empiricism to its skeptical, but logical, extreme.

To return to Descartes, all he in effect does is to point to aspects of thought that show it to be quite distinct from sensation, or to be at a higher cognitive level; and with respect to none is it possible for Locke to give a really satisfactory reply. If this analysis is correct, then it means that the real point at issue between the empiricism of Locke and the rationalism of Descartes is not, as appears on the surface, about the origin of thought, but about its nature. The question that divides them is not so much "Where does knowledge come from, experience or the innate resources of the mind?" as rather "What is the nature of thought—is it, or is it not, distinct in kind from sensation and imagination?" It is worth asking why this latter question gets transformed into the former.

²⁴ *Notes against a Certain Programme*, HR, 1, 443; *Sixth Meditation*, HR, 1, 185.

²⁵ *Essay*: Bk. 11, ch. 1, sect. 4.

A look at the general form of the reasoning employed by each thinker will help to reveal the answer.

The general form of Descartes' reasoning (disregarding the argument about the origin of sensible ideas which is not relevant here) is as follows: thoughts are quite different from sensations or images, therefore they cannot be derived from them but must be innate. The general form of Locke's reasoning is conversely: no knowledge is innate but it all comes from sensible experience (the argument of the first book of the *Essay*), therefore it is all sensible knowledge or reducible to such knowledge, that is, to sensations and images. Now once this general form is exposed, it can be seen that there is a common assumption that lies behind both these arguments. If Descartes believes that the difference between thought and sensation means that the former cannot be derived from the latter, this can only be because he is taking for granted the additional premise that if thought is sense-derived it must ultimately be the same as sensation; and if Locke believes that the derivation of knowledge from sensible experience means it must all be sensible knowledge, this can only be because he is taking for granted the same additional premise, namely that if all knowledge (including thought) is sense-derived it must ultimately be the same as sensation. This conditional premise can be expressed more fully thus: if all knowledge is conveyed to the mind through the senses, it must be sensible knowledge or reducible to such knowledge. Now there are two ways to argue from a conditional premise; one either asserts the antecedent and concludes 'by asserting the consequent, or one denies the consequent and concludes by denying the antecedent. Locke and Descartes only differ from each other about innate knowledge as completely as they do because Locke adopts the former procedure while Descartes adopts the latter.

²⁶ *Treatise*: Bk. 1, Pt. 1, sect. 1.

It is worth dwelling on this fact because it is only on account of the common and shared premise that they come into conflict. Remove that premise and the conflict is removed too; for nothing prevents one holding that thought is different in kind from sensation and imagination (for the sorts of reasons given by Descartes), and yet has its source in sensible experience (for the sorts of reasons given by Locke), if one holds that this can be done without the reduction of thought to imagination, in other words if one rejects Descartes' and Locke's, premise. Now this is, in point of fact, substantially the position taken by scholastics and before them by Aristotle in their doctrine of abstraction. The disagreement between Descartes and Locke is less important than the disagreement between them both on the one hand and the scholastics and Aristotle on the other.

D. FROM DESCARTES AND LOCKE TO WITTGENSTEIN

If the crucial premise here can be found in Descartes and Locke, it can also be found in several others after them. Berkeley and Hume, the heirs of Locke, have already been mentioned, and it is clear that they, even more than Locke, unite the belief that knowledge is derived from experience with the belief that thought is ultimately imagination. Through Hume the premise passes over into the critical philosophy of Kant. Science, according to Kant, is universal and necessary, but experience (as Kant believed Hume had successfully shown) is neither. Now Hume had come to this result by taking the reduction of thought to imagination to its logical extreme: mere sensible images are just a series of particulars, and one cannot at the level of sense or imagination grasp any necessary or universal connection between them; the unfettered way they can be

separated and connected by imagination is proof of this.²⁷ Kant accepts the legitimacy of Hume's destructive analysis of experience, and accordingly he is compelled to look for the universality and necessity that characterize science elsewhere, namely in innate a priori categories of the mind. Kant's doctrine of innate knowledge is quite different from Descartes, but the motivation is the same, and so is the hidden premise, for Kant accepts (because of his acceptance of Hume) that all knowledge derived from sensible experience is no more than sensible knowledge, or that sensible experience conveys nothing to the mind save sensible images, so that everything else must come from the mind itself.²⁸

The influence of the same premise can be felt also in the *Philosophical Investigations* of Wittgenstein (though here attention has been shifted away from the nature of thought to that of meaning). This is partly because so much of the *Investigations* reads as if it were directed against the tradition descended from Locke that a word means the inner ideas or images it signifies.²⁹ Wittgenstein's thesis may be summed up negatively as "The meaning of words must not be looked for in something they are supposed to signify," and it is clear from his remarks about identifying the meaning of 'reading' and 'pain' with some internal process that he takes the object which is supposed to constitute the meaning of a word to be a sensation or feeling, rather like a Lockean idea, and so something irreducibly private. He likens this inner object to the unseen beetle in the box which serves its purpose just as well whether it is there or not; such hidden objects, he points out, will not do as the meaning of a word, for they can be changed or removed altogether while the word goes on functioning in language just as

²⁷ See in particular *Treatise*: Bk. 1, pt. 1, sect. 4.

²⁸ See the *First Critique*: Intro., sect. 2 (2nd. ed.).

²⁹ *Essay*: Bk. III, ch. 2.

successfully, and so must still have all the meaning it had before.³⁰ Wittgenstein therefore has recourse to use, and locates meaning there rather than in something signified. This term is meant very broadly, for he regards language as woven into the other activities of life so that meaning is constituted by the whole context in which words function, by the “language-game” or “form of life” within which one is operating. What the origin of forms of life is is left unclear, but they are certainly social, and discourse is so much embedded in them that without them it is impossible: if language-using beings do not share the same life-form (Martians and humans, for instance), however much they may use the same words, they will be unintelligible to each other.³¹ History would thus seem to play a crucial role in the generation of them.

Now it must be admitted that there is a certain parallelism with Descartes’ reasoning here, for it is because Wittgenstein is convinced that one cannot explain the meaning of language in terms of the objects of experience that are immediately present to the speaker’s mind, that he brings in something else, namely (as I have suggested) the social and linguistic context. In this case, however, the input beyond the data deemed sufficient by Locke is not innate in the sense of being already present in the constitution of the mind, but it certainly appears to be so in the sense of being innate in life’s historical tissue (a sort of substitute for the Cartesian mind). What separates Wittgenstein from Descartes (and also from Aristotle, incidentally)³² is that, being apparently still very much under the influence of empiricism, he does not consider whether one can avoid the difficulties he sees in the thesis that words mean what they signify if one talks about

³⁰ *Philosophical Investigations*, trans. Anscombe (Oxford: Blackwell, 19176): part 1, sects. 156-180, 293, 304-5.

³¹ *Ibid.*, part 2, sect. xi, p. 223.

³² *De Interpretatione*: 16a3-8; also Aquinas’ commentary ad loc.

intellectual concepts rather than images (when, for instance, the intellectual concept of pain cannot be identified with having or recalling the feeling of pain). It is not clear that an intellectual concept will be as necessarily private, or as accidentally related to the successful functioning of words in language, as feelings or sensible images are.³³

E. THE ARISTOTELIAN/MEDIEVAL APPROACH

In view of the significance of Descartes' and Locke's premise, not only in their own thinking, but also in that of others who have exercised a similarly wide influence over modern philosophy, it is surely of some importance to examine its validity. I think a useful way of setting about to do this is to examine the contrary view of older thinkers, particularly Aristotle.

In the last chapter of *Posteriora Analytica*,³⁴ Aristotle raises the question how we attain knowledge of the universal principles of science. As is his wont he begins dialectically by suggesting reasons on either side, first to show that this knowledge is innate, then to show it is not. He resolves these reasons in his answer that it is not innate but does require an innate power to be attained. He traces this knowledge to sensible experience and declares it arises by induction, *epagoge*, but this is not what we usually mean by induction. There are, says Aristotle, different levels of knowing which are reflected in the different kinds of animals. There is first mere perception, then retention of perception in memory, then experience built up from many rememberings, and finally in

³³ The elaboration and defense of this suggestion demands a study in itself. It seems to me, nevertheless, to be part of what Husserl is doing in his *Logical Investigations*. For an interesting discussion of Husserl's thought here, I refer the reader to an essay by Raggiunti in *Analecta Hussertiana*, vol. XI (Dordrecht: Reidel, 1981), pp. 225-277.

the case of man there is also reason, *logos*, and mind, *nous*. It is only at this final level of mind that one reaches universal knowledge, that is, the recognition in the many particulars of the one common nature they all share. Neither the mind nor the senses on their own are sufficient for this, for while the mind is needed to bring out the universal, the senses are needed to give the mind the material from which the universal can be drawn. The induction involved here is not formal induction whereby the many particular instances are the cause of the universal conclusion and make that conclusion the more probable the more numerous they are, but rather material induction whereby the many particulars are not the cause of the universal but merely furnish the occasion for its recognition. Another term for this process is abstraction, but this is not Lockean abstraction, for that is just a matter of separating sensible features from sensible features (the abstract idea is supposed to be but a partial idea of the complex particular idea), and therefore does not involve any ascent beyond the sensible level to a higher intellectual one. Such an abstraction, as Berkeley pointed out, cannot yield an idea that is genuinely universal. Aristotelian, and also medieval, abstraction essentially involves a rising to a higher cognitive level, from that of sense, *aisthesis*, to mind, *nous*, and therefore only occurs in man where there is mind and not in animals where there is only sense. (It is significant in this context that the reduction of thought to imagination in empiricism leads Hume to a denial of any substantial difference between men and other animals.)³⁵

But it is not enough to assert this doctrine about the relationship between sensation and mind; one must also give some account of it. An instructive way of seeing how Aristotle does this is by noting first something else about the thought of Descartes

³⁴ 99b15-100b17.

³⁵ See *Treatise*: Bk. 1, part 3, sect. 16.

and Locke. What drove them, one may say, to accept the premise on which their reasoning rests was the recognition that one cannot speak of a derivation of one thing from another if there is not a likeness between the two, if what is derived is not somehow present in what it is derived from; hence if knowledge is all supposed to be sense-derived one cannot legitimately speak of knowledge that is unlike sensible knowledge. Aristotle would not quarrel with the motive here but he would quarrel with the result. This is because for him there is a likeness between the world we experience through the senses and the mind that comes to know it at an intellectual level. The world is in itself intelligibly structured, and while the universal natures are not real entities (as Plato thought) they have a real foundation in things. The intelligibility of this ordered whole is, however, not transparent to the senses, but has to be uncovered; and mind is precisely the faculty fitted to do this uncovering. There are, in other words, two main parts to the Aristotelian doctrine of abstraction: a view of the nature of mind on the one hand and a view of the nature of the world of experience on the other.

Turning to the question of the nature of mind first, it becomes clear in the *De Anima*³⁶ that mind is able to abstract because it is active as well as passive. What is latent in particular things is brought to life, so to speak, and imprinted on the mind by the mind itself. Aristotle resorts to an analogy with light to explain this. As colors are not seen unless light first falls on them and makes them visible, so the universal natures are not seen in the particulars unless the light of the mind falls on them and makes them knowable. Now it is worth noting that one of the results which may be said to emerge from the debate about innate knowledge between Descartes and Locke, is that one cannot get out of sensible experience by itself all that is grasped by thought; some input beyond

mere sensation is required. Aristotle would agree with this, but not with Descartes that that input takes the form of actual knowledge, nor with Kant that it takes the form of a priori concepts, nor indeed with Wittgenstein and others that it takes the form of the social and linguistic context; rather it takes the form of a different faculty or power that is endowed with its own distinct principle of activity (what medieval writers used to call its own “intelligible light”), which does not work by adding to the content of sensible experience (as the other solutions do), but by enabling more of what is already there to be taken out.

The point may be put also in this way. Not everything that is apprehended by the senses in experience is expressed or expressible at the level of sensation; it can only be expressed and only made explicit by the mind when the mind reflects on the experience apprehended by the senses. And if this is so, it necessarily follows that the mind’s thinking is not to be regarded as a sort of passive copying of sense-data (as Hume too readily supposes), but rather as something active. The mind must, in other words, be regarded as an independent power with its own independent principle of activity. In this sense, for Aristotle, as for Kant, the mind has its own spontaneity. The difference, as I have argued (and this is significant), is that for Aristotle the spontaneity consists in an active capacity for drawing out knowledge from experience, not in actual knowledge, or actual principles of knowledge, that are imposed on experience from outside.³⁷

As regards the nature of the world of experience that the mind comes to know, here again a contrast with the views of Descartes and Locke is instructive for

³⁶ 430a10-25.

³⁷ One is almost tempted to suggest that this is what Chomsky and Leibniz are at times trying to say, though they do not distinguish actual innate knowledge from an innate capacity for abstracting knowledge. See the

understanding the alternative view of Aristotle.³⁸ Descartes and Locke would both agree that the world has its own intelligible order (independently, say, of any mental constructing by man), but only with certain qualifications. Descartes regards its order as purely mathematical, since all that is real in objects is extension and quantity; for this reason it is not revealed by the senses, which give us only a confused picture of sensible qualities, and so it can only be accessible to us through innate intellectual ideas. For Locke its order is the constitution and motion of its insensible atoms, and these too are not revealed by the senses, except very slightly; Locke is therefore skeptical about how much we can know of this real order, though he does replace it by the order of nominal essences that we are able to construct for ourselves.

Now these orders are not orders of the sensible world as we experience it; but Aristotle's order is. For Aristotle sees this order lying in the fact that the world the senses give us, while it may be a sensible world, that is a world revealed by the perception of sensible features, is nevertheless a world of things or beings. This fact may appear to be a truism but its implications are far-reaching. Being, as famously expressed by Avicenna following Aristotle's implicit thinking if not any express words,³⁹ is the proper object of thought and indeed the most basic fact that strikes the mind about sensible things. And by being is meant the 'is-ness' of things, or the fact that they exist over against us in their

references in note 9 above for Chomsky, and the *Preface to New Essays*, trans. and ed. by Remnant and Bennett (Cambridge: Cambridge Univ. Press, 1981), for Leibniz.

³⁸ On the general difference of conception about the nature of reality between the Aristotelian/medieval tradition on the one hand, and the modern scientific approach (of which Descartes and Locke were part) on the other, there is a stimulating article by J. Naydler "The Regeneration of Realism and the Recovery of a Science of Qualities;" *International Philosophical Quarterly*, 23 (1983), 155-72. While I am in basic agreement with Naydler, I think one should stress much more the importance of the concept of being for medieval thought.

³⁹ The remark is found in Avicenna's *Al-Shifa'*. The Latin translation is given in *Avicenna Latinus, Liber de Philosophia Prima*, tractatus 1, cap. 5, ed. Van Riet (Leiden: Brill, 1977). Aquinas often refers to it; e.g. *De*

own right and not as the subjective modifications of our own psyche. This may be a controversial thesis (though not as controversial as it was); but for Aristotle and the medievals generally it was a basic given, so much so in fact that it was quite pointless to seek to prove it; the immediate evidence of experience was the only, and sufficient, proof of it (though one could, it is true, argue against those who denied it and try to show that their position was absurd or contradictory).⁴⁰

Being is, further, not a simple property like redness; it is all-comprehensive in its scope (for everything whatever is a being in some sense) and rich in its diverse complexity (for while everything is a being, not everything is a being in the same way or in the same sense). In trying to understand the intelligible order of the sensible world, the mind is doing nothing other than trying to penetrate the complexities of its being. What this involves is clear, first of all, from the *Categories* where Aristotle sets out the kinds of ways in which any sensible object has being, either as self-subsistent (substance), or as so long or wide (quantity), or as so colored or shaped (quality), etc. Now as the primary divisions of being these are also the primary divisions of the objects of thought, and in this respect it is instructive to contrast this division according to the kinds of being with Locke's division according to the kinds of sensible qualities. This is, in effect, his substitute for Aristotle's categories, and it goes to show just how much of the realm of being is necessarily excluded from experience by empiricism.

Being is not just treated by Aristotle in the *Categories*, it is also the express

Veritate, q.1, a.1, ed. Spiazzi (Rome: Marietti, 1964). For Aristotle himself, see *Metaphysics*: 1028b2-7; *De Anima*: 429a10-430a25.

⁴⁰ Cf. the way Aristotle argues in *Metaphysica* 1006alff. One may add that there is a further reason here that would have turned Descartes and Locke against Aristotelian abstraction. It is a necessary consequence of their theories of the nature of external reality that they should assert that the immediate objects of our perception are not real external existents but rather internal states of mind. In this way they necessarily

subject of the *Metaphysics* which is, in many ways, the culmination of his philosophy. In fact in medieval elaborations of this theme, it was pointed out how the whole division of the sciences followed the various divisions of beings.⁴¹ The task in the sciences is to treat of the nature or *whatness* of things and their properties, that is, to discover the particular kind of being each thing is and those manners or modes of being that consequently belong to it.

For Aristotle, then, and also for the scholastics and medievals in general, the world, as a system of beings, is a naturally intelligible whole that is in principle proportioned to the mind, because being is the object of the mind. And this world, moreover, is none other than the world of sensible experience (not some world supposedly ‘hidden’ behind it), precisely because what the senses give us is beings, namely sensible beings, although admittedly they themselves do not make explicit anything beyond the sensible properties. The task of doing that has to be left to the mind itself, which is, by its own nature, endowed with the proper capacity for doing so.

F. A POSSIBLE CRITICISM

Such an account of Aristotelian and also medieval thought,⁴² while brief, is I think enough to show how it contrasts with the views of Descartes and Locke, and how it opens up quite different perspectives on epistemology. But there is one particular criticism of it

deny that what we directly perceive has real being, and it is on the real being of directly perceived things that Aristotelian abstraction is founded.

⁴¹ See, for example, Aquinas, *In Octo Libros Physicorum Aristotelis Expositio*, ed. Maggiolo (Rome: Marietti, 1965), sects. 1-4.

⁴² For the views of Aquinas, for instance, one may refer to his commentaries on the passages of Aristotle already mentioned, and also to *Summa Theologica*, Ia, qq. 84, 85.

that is almost bound to be made and is so important in itself that it needs to be considered. This is the criticism of historicism which rejects the idea (common to Descartes, Locke and Aristotle) that the world possesses intelligibility independently of human thinking, and declares instead that the way the world is understood varies according to time and place, and that the pattern or order it is held at any time to possess is just a construct of man's own devising. The whole does not have an intellectual structure to be discovered and even less universal natures to be abstracted.

The best way of replying briefly to this is to focus on the principal support historicism claims to have in its favor, namely the evidence of history, because history does present us with just such a succession of diverse opinions, varying with time and place, as historicism speaks of. But this evidence is far from conclusive for it admits of more than one explanation. It is certainly explicable within Aristotle's philosophy, since for him, while the whole has a natural order, it is not transparent; thus, though all men have opinions (which may well result from all the kinds of non-rational factors that are posited as the causes of thought by historicists), and though these opinions may vary as much as one wishes with times and places, there is nevertheless a true, unchanging knowledge of the whole, accessible to all those who dedicate themselves to philosophy to find it.

In fact, when historicism is considered in the light of its own history (something which historicists seem strangely slow to do), it will be found that its claim that the structure of the whole is made by us, is, in fact, much more based on the belief that the world is in itself irrational, or at any rate out of step with, and inaccessible to, our minds; and this belief is itself tied, in its historical origins, to the skeptical consequences of

Humean empiricism. It was because Hume pictured the experienced world as lacking all natural order that it was asserted by Kant that its order had to be imposed by us, and then, under the historical impulse given to philosophy by Hegel and Marx, that the order was not necessitated by the constitution of our minds (as Kant in effect supposed), but was the result of history and varied accordingly. To the extent, therefore, that historicism is indebted in its premises to ideas that go back to empiricism, the question about the nature of thought and of the world cannot be considered as settled in its favor against Aristotle until the dispute between empiricism and Aristotle has itself been settled. I think enough has been said to establish that in this dispute Aristotle is by no means the obvious loser.

G. CONCLUDING REMARK

I will conclude with a final thought. Descartes and Locke did not accept the Aristotelian understanding of the intelligible order of the world (with which they must have had some considerable familiarity through the scholastic tradition), because of their preference for modern science and their belief that the real world must be of a quite different character if such a science was to be applicable to it. They therefore promoted their own mechanistic and mathematical understandings (as mentioned above) to replace that propounded by Aristotle.

The view that such mechanistic and mathematical interpretations of reality are required to account for the success of science is one to which we are less bound today. One of the reasons for this is that advances within science itself have taught us that strict mechanical causality does not obtain, nor, even if it did, would it explain all the

phenomena. The uncertainty principle and quantum mechanics in general have undermined the old trust in mechanical and determinist explanations. Another reason is the more explicit, and more theoretically argued, recognition (by certain thinkers, for instance phenomenologists as well as neo-scholastics, such as J. Maritain),⁴³ of the limitations of science. Both in its objects and in its method it is severely restricted: there are things that of necessity escape it (notably in the human sciences where behavior cannot be reduced to its external manifestations, however statistically quantified, but must include reference to motives, intentions and so on), while what it does treat it treats only with respect to those aspects, chiefly mathematical and quantitative, which fall within its competence. The abstract and artificial nature of scientific categories thus leaves much of the richness of the world of experience untouched, and it is a mistake to try, like Descartes, to absolutize them and extend them beyond their proper sphere.⁴⁴

In view of these changes from the days of Locke and Descartes to our own, and in view also of the fact that time has made us freer of the passions and conflicts that attended the birth of modern science and brought scholastic and therewith Aristotelian philosophy into such disrepute, we are perhaps in a better position to form an unbiased assessment of the validity of that philosophy, and of the contribution it can still make to our thinking today, especially, as I have argued in this paper, to our understanding of epistemology.

Peter Simpson

⁴³ See *Degrees of Knowledge*, trans. Phelan (London: Bles, 1959), part 1.

⁴⁴ For some criticisms of contemporary theories in psychiatry along these lines, see the essays by Borgna, De Negri, Callieri and Castellani in *Analecta Hussertiana*, XI, 173-222.