

THE PROSPECTS FOR NATURAL THEOLOGY

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I. What is Natural Theology For?

What is natural theology, and what is it for? As to what it *is*, for present purposes we may take it, very simply, to be the attempt to provide proofs or arguments for the existence of God. More exactly, it is the project of producing proofs or arguments for *theism*, the view (roughly speaking) that there exists an all-powerful, all-knowing, wholly good person who has created the world. Clearly there are many things one might hope to accomplish by offering such arguments. You might be a believer in God yourself and might try to convince someone else to join you in this belief. Or you might be a wavering or troubled believer in God, and be trying to convince yourself. Or you might have no initial views on the subject and propose to come to a position on the matter by way of considering the evidence for and against. Or you might think theism useful in philosophy, in that it offers suggestions for answers to a wide range of otherwise intractable questions, and look for some arguments; you might then look for some arguments for theism, as part of your effort to deal with those questions.

A. *Fides Quarens Intellectum*

But of course there are other, historically more prominent reasons for working at natural theology: to consider some of the more important ones we must make a brief historical *excursus*. According to

one important strand of medieval thought, we begin with faith, but a faith that is seeking understanding: *fides quarens intellectum*. According to this tradition we have *understanding* when we have scientific knowledge, *scientia*, of the item in question; and we have *scientia* when we see that the item in question is true by seeing that it follows from what we see to be true. From this perspective, a central function of the theistic proofs would be to transform faith into knowledge, belief into *scientia*.¹ (Of course there is also the Augustinian-Bonaventurian medieval tradition; and for that tradition *fides quarens intellectum* is to be understood quite differently.) But in at least one important strand of the broadly Thomistic tradition, the central function of natural theology is that of transforming faith into knowledge. According to Aquinas, a person might be perfectly justified, perfectly within her rights, indeed, thoroughly meritorious in believing in God without the benefit of argument. Still, such a person does not have knowledge (*scientia*) of God's existence; she *believes* but does not *know*. He holds that it is possible for some of us, however—those of us who have the inclination, the ability, and the leisure—to see that God exists by way of the theistic proofs: the five ways, for example. Such a person *knows* that God exists, has *scientia* of that fact; and to have *scientia* is in general² a higher and better epistemic condition than merely to believe. Why so? On this way of thinking of the matter, what is self-evident (i.e., self-evident to us) has maximal epistemic status (for us); and what can be seen to be true by virtue of being seen to follow from what is self-evident has equivalent or nearly equivalent status. Suppose we say that *the deliverances of reason* are the propositions that are self-evident to us together with the propositions that we can see follow from them by way of arguments whose validity is self-evident for us. Then the deliverances of reason will have maximal (or near maximal) epistemic status for us; and to show that a proposition is among the deliverances of reason will suffice to show that its epistemic status is (almost) maximally great. A successful piece of natural theology, therefore, would be an argument that showed that the existence of God is among the deliverances of reason. It would start from premisses that are self-evident; it would proceed by a self-evidently valid argument to the conclusion that indeed there is such a person as God; and it would thereby enable at least some of us to have *scientia* of the proposition in question. So another proposed reason for natural theology would be to make it possible for you yourself or someone

else to *know* that God exists, to have *scientia* of this fact, to see that it is so, as opposed to merely believing it.

Can natural theology in fact perform such a function? I don't have the space here to go into this matter with the care it deserves: I shall have to be brief and dogmatic. First, on the view in question self-evidence is not a matter of degree; a proposition is self-evident to us or it is not. A proposition is self-evident (for us) only if it is such that we can simply see it to be true (and furthermore, says Aquinas, such that we couldn't so much as entertain it *without seeing* that it is true.) The fact is, I think (and here Aquinas need not disagree), that there are many degrees of intuitive warrant; and only a proposition that enjoys the highest degree of intuitive warrant for us is such that a person can't even entertain it without seeing that it is true. There are many degrees of self-evidence or intuitive warrant: it is self-evident *in excelsis* that $2+1 = 3$; it is nearly as clear that no propositions are both true and false; it is perhaps almost as obvious that every proposition is either true or false; it is less obvious (but still obvious) that (pace Meinong and Castañeda) there aren't any things that do not exist; it is still less obvious (but nonetheless obvious) that no propositions are sets.³ The propositions that have intuitive warrant for us (what reason teaches us) have *varying* degrees of warrant, ranging all the way from cast iron certainty through great plausibility to substantial probability. If so, however, the deliverances of reason properly so-called will include propositions of varying degrees of warrant. And then it becomes less plausible to think that theism gains a really impressive epistemic status by being shown to be among the deliverances of reason. It would have that *maximal* degree of warrant or positive epistemic status only if it were shown to follow from what had maximal intuitive warrant by way of argument steps that themselves enjoyed that exalted status. It is doubtful, however, that any of the arguments of natural theology even approach that lofty and baronial condition. None of them, so far as I can see, measures up to the enormously high standards to which they would have to conform if they were to show that the existence of God has this maximal epistemic status. (Of course that is so far nothing against them; *no* philosophical argument of any significance measures up to those standards.) But then it seems unlikely that natural theology can serve the function of transforming faith into knowledge at least in the way outlined above.

B. Justifying Theistic Belief

There is another historically important motive for engaging in natural theology. Many have held that to believe in God without believing on the basis of propositional evidence—without having an argument from other things you believe, for example—is somehow intellectually second-rate, intellectually improper, unjustified, out of order. (More subtly, the view might be that if there are no good arguments of that sort, then the believing community, to use Stephen Wykstra’s term, is in “big doxastic trouble.”) Under those conditions, belief in God would be *unjustified*; more exactly, the *believer* would be unjustified, doing something contrary to epistemic duty or obligation, doing something impermissible, something she has no right to do. Thus W. K. Clifford entitles his famous essay “The Ethics of Belief”⁴ and loudly trumpets that “it is wrong, always, everywhere and for anyone to believe anything upon insufficient evidence.” William James, in reply, entitles *his* essay “The Will to Believe”⁵; “The Right to Believe” would have been a more accurate title⁶, since his central claim was that in some circumstances it is permissible, not contrary to duty or obligation, to believe even when you don’t have evidence. The Cliffordian idea is that there is a sort of intellectual duty or obligation not to believe in God without having evidence, or sufficient evidence. If there is no evidence, or insufficient evidence, the believer is unjustified; she is flouting her epistemic duties. Clifford is not indulgent towards such dereliction of epistemic duty: “If a belief has been accepted on insufficient evidence, the pleasure is a stolen one. Not only does it deceive ourselves by giving us a sense of power which we do not really possess, but it is sinful, because it is stolen in defiance of our duty to mankind.”⁷ (Here one gets a whiff of that “robustious pathos” with which James credits him.)

Contemporary evidentialist objectors (for example, Brand Blanshard, Antony Flew, John Mackie, Bertrand Russell, Michael Scriven), though perhaps displaying less of that robustious pathos, nevertheless join Clifford in putting their objection in terms of obligations, permission and rights. Thus Brand Blanshard:

Everywhere and always belief has an ethical aspect. There is such a thing as a general ethics of the intellect. The main principle of that ethic I hold to be the same inside and outside religion. This principle is simple and sweeping: Equate your assent to the evidence.⁸

The problem with the believer in God, they say, is that she holds her beliefs without having sufficient evidence; and the problem with *that* is that it goes contrary to our intellectual duties and obligations. Evidentialist objectors to theistic belief argue that there is insufficient evidence for theistic belief, and to believe something for which you have insufficient evidence is to go contrary to your epistemic duties. This view that there is a duty not to believe in God without propositional evidence has a long and distinguished history, going back at least to Locke⁹ and possibly to Descartes; it has been popular ever since. As Locke sees the matter,

Faith is nothing but a firm assent of the mind: which if it be regulated, as is our duty, cannot be afforded to anything, but upon good reason; and so cannot be opposite to it. He that believes, without having any reason for believing, may be in love with his own fancies; but neither seeks truth as he ought, nor pays the obedience due his maker, who would have him use those discerning faculties he has given him, to keep him out of mistake and error. He that does not this to the best of his power, however he sometimes lights on truth, is in the right but by chance; and I know not whether the luckiness of the accident will excuse the irregularity of his proceeding. This at least is certain, that he must be accountable for whatever mistakes he runs into: whereas he that makes use of the light and faculties God has given him, and seeks sincerely to discover truth, by those helps and abilities he has, may have this satisfaction in doing his duty as a rational creature, that though he should miss truth, he will not miss the reward of it. For he governs his assent right, and places it as he should, who in any case or matter whatsoever, believes or disbelieves, according as reason directs him. He that does otherwise, transgresses against his own light, and misuses those faculties, which were given him...
(*Essay IV*, xvii, 24)

Locke held that some propositions are *certain* for me: those that are self-evident, such as $2 + 1 = 3$, and those that are about my own immediate experience, such as *I feel a mild pain*, or *I seem to see something red*, or (to borrow Roderick Chisholm's terminology) *I am appeared to redly*. Here duty and obligation have no relevance; for, says Locke, it is not within my power to withhold a belief of that sort. As for other propositions, however—those that are *not* certain for me—duty requires that I believe them only if I have reason to do so: only if, that is, the belief in question is probable with respect to those beliefs that are certain for me.

So Locke holds that we rational creatures have epistemic (better,

doxastic) duties: duties to regulate or govern our beliefs in the correct ways,¹⁰ or duties to try to achieve a state in which they are thus properly ordered. Chief among these duties is that of believing a proposition only if it is probable with respect to what is certain for you; hence the claim that belief in God is permissible only if you have evidence for it (that is, only if it is probable with respect to propositions that are certain for you). To act in accord with these duties or obligations is to be within one's rights; it is to be approvable; it is to be *justified*. Clearly this deontological territory of duty and permission is where the whole notion of justification has its natural home. To be justified is to be without blame, to be within your rights, to have done no more than what is permitted, to have violated no duty or obligation, to warrant no blame or censure. The Lockean view, then, is that (1) you are justified if and only if you conform to your duties, and (2) among those duties is the obligation to refrain from believing a proposition that isn't self-evident or appropriately about your experience unless you have propositional evidence for it: evidence from other things you believe, and evidence that must trace back, ultimately, to what is certain for you.

This view has been enormously influential in western epistemological thought since the Enlightenment; indeed, it has achieved the status of epistemological orthodoxy. There is impressive testimony to our contemporary debt to Locke in the fact that we sometimes seem to use the expression 'justified in believing' just to *mean* 'has sufficient evidence for'. It is easy to see how this might come about. Suppose you begin by agreeing with Locke that among your duties is that of not giving "firm assent" to any uncertain proposition without having good reasons (i. e. propositional evidence) for it; then you will think that no one is justified in accepting such a belief without evidence or reason; and you may come eventually to use the term 'justified belief' as a synonym for 'belief for which one has good reasons'.

From this dominant Lockean perspective, then, a person is within her rights in believing in God only if she has propositional evidence for that belief. The evidentialist objector claims that none of us *does* have adequate evidence for that belief, so that those of us who do believe stand revealed as epistemic malefactors. On the other hand, you might think that one way to justify theistic belief, or bring it about that we *are* justified in accepting it, is by way of discovering and providing good theistic arguments. In this way natural theology

could be used to provide *justification* for theistic belief. If I come up with a good theistic argument, I will thereby bring it about that I am justified in accepting theistic belief. I can also help others achieve justification in *their* theistic beliefs; for they can read and understand my argument, thus acquiring justification. (Alternatively, in a Wykstrarian vein I thus help protect the entire believing community from big doxastic trouble.) From this perspective, then, the central function of natural theology is to justify theistic belief, bring it about that it is permissible to accept it.

This alleged function of natural theology has more contemporary interest, in a way, than the Thomistic project of transforming faith into knowledge; for the idea that there is an epistemic duty to believe only if there is propositional evidence, like the evidentialist objection to theistic belief, is still very much with us.¹¹ But I shall argue briefly that this alleged function of natural theology doesn't need to be fulfilled. The basic reason is that there is no general intellectual duty to proportion one's belief, in this way, to the evidence, at least if my *evidence* is understood, Lockean fashion, as an assembly of beliefs—those beliefs that are self-evident to me or immediately about my own experience. Of course it is hard to *prove* that there is no such duty. But first, the whole history of modern thought from Descartes and Locke to Hume and Reid show that if there *is* such a duty, then we all constantly violate it in accepting memory beliefs, beliefs about other persons, beliefs about the ordinary physical objects of our environment, and so on. And why think, after all, that there is such a duty? Why am I not entirely within my rights, intellectual, or moral, or whatever, in believing with great firmness that I now see an ant on top of my computer—even if I can't produce much by way of noncircular evidence from self-evident propositions together with beliefs about how I am being appeared to? It isn't easy to take seriously this suggestion that in so doing I might be going contrary to epistemic duty. Why believe that I have any such duty? The proposition that there is such a duty is itself neither self-evident nor an account of how I am being appeared to; if there is such a duty, therefore, it is incumbent upon us to believe that there is only if there is an argument to the conclusion that there is such a duty from propositions that are self-evident or immediately about immediate experience: what would that evidence be?

But then we must raise the same question about belief in God: is there really a good reason for thinking that a believer in God who

has no propositional evidence (no evidence from his other beliefs) is going contrary to his duty? Surely this is questionable *in excelsis*.¹² If, after careful and mature reflection, I find myself with the firm belief that there is such a person as God, how could I be violating my duty? Of course it is possible that I was undutiful *earlier on* and as a result now find myself believing in this way. But surely it is wholly implausible to suppose that belief in God either invariably is or results from epistemic iniquity. Conceivably there is *some* sort of problem for believers in God (or the believing community) if there aren't good arguments from natural theology; but it isn't surely, that under those conditions they would be flouting their intellectual duties. That is no more plausible than the claim that I am thus flouting duty in believing that the world is more than 5 minutes old (thus rejecting Bertrand Russell's fantasy that the world was created just 5 minutes ago, complete with all its dusty books, crumbling mountains, and other alleged evidences of a substantial past), despite the fact that I don't know how to give noncircular evidence for this belief. So this function of *justifying* believers in God, putting them in the right, putting them within their epistemic rights, bringing it about that they are or can be in conformance with their epistemic duties in believing in God—this function, I think, does not need to be performed. Those who believe in God without propositional evidence aren't necessarily falling into epistemic transgression.

II. Warrant

I turn to still another function natural theology might perform, this one connected in an interesting way with the idea that the function of natural theology is to transform faith or belief into knowledge. No doubt Plato wasn't the first to recognize the important difference between mere true belief and knowledge; but his *Theaetetus* is the first known systematic and philosophically significant attempt to deal with that distinction. This question—the question what distinguishes mere true belief from knowledge—has been with us ever since, thus confirming Whitehead's view that Western philosophy is a series of footnotes to Plato. Suppose we use the term 'warrant' as a name for that quality, whatever exactly it is, that distinguishes knowledge from mere true belief. Thus you know what your name is; but if you get lucky and correctly guess that the Red Sox will win the pennant,

then, while your belief is true, it does not constitute knowledge and does not have much by way of warrant for you. Warrant, obviously enough, comes in degrees; and a high (but not necessarily maximal) degree is necessary for knowledge. Now still another function natural theology might perform is that of providing warrant for belief in God. And here we must ask at least two questions: (a) Can belief in God have warrant apart from propositional evidence, apart from the arguments of natural theology? And (b) Can it have sufficient warrant to constitute *knowledge* apart from natural theology?

To answer those questions, naturally enough, we must know something about the nature of warrant. What is this quality or quantity, enough of which is sufficient to distinguish knowledge from mere true belief? At present there are really three main views as to what warrant is: Classical Internalism (represented at its contemporary best by Roderick Chisholm), Coherentism, and Reliabilism. Each of these, I think, suffers from crucial and debilitating difficulty. I can't take the time here to explain and explore them in detail;¹³ but I must say a word about each.

A. Chisholmian Internalism

Very briefly, Chisholmian Internalism follows¹⁴ the received Lockean tradition in seeing warrant in terms of aptness for fulfillment of epistemic duty; a proposition has warrant for me if believing it is a good way to fulfill my epistemic duty or obligation.¹⁵ Chisholm proposes different ideas as to what this epistemic duty is: perhaps it is that of trying to bring it about, for any proposition I encounter, that I believe it if and only if it is true; or perhaps it is that of trying my best to bring it about that I have a large set of logically independent beliefs in which true beliefs predominate; or perhaps it is something else. Chisholm's fundamental idea is that the rational creature, the being capable of beliefs, considers the various propositions that come to her attention at a time *t*, deciding which to accept and which to withhold. If she is appropriately dutiful, she will make these decisions in the service of an attempt to fulfill her epistemic duty; and a proposition will have warrant for her to the degree to which she can fulfill this obligation by accepting it.

Sadly enough, however, it is clear that warrant cannot be explained in terms of aptness for epistemic duty fulfillment. The problem is that I can be as dutiful as you please and still my beliefs might lack

warrant. I may be trying my level best to fulfill my duty to the truth; fulfilling that duty may be the main aim of my life; I may be performing magnificent works of epistemic supererogation; a belief may be such that accepting it I do my duty and more; and yet my beliefs may utterly fail to have warrant for me. Perhaps, for example, I suffer from a deep and epistemically disastrous cognitive malfunction. Perhaps (due to genetic malfunction) I suffer from the following epistemic malady: whenever I seem to see another person, I form the belief that no human being is then in North Dakota. (More exactly, under those conditions that belief is produced in me.) Perhaps this belief is as utterly attractive and compelling, for me, as my most firmly held convictions; perhaps it has, for me, all the phenomenological *panache* of $2+1 = 3$ itself. Then the dutiful thing to do, of course, would be to accept that belief; but surely it would have little by way of warrant. Even if by some wild chance it happened to be true on an occasion when it is produced in me, I wouldn't have knowledge of it.

Alternatively, perhaps you think, in a Kantian vein, that what really goes with duty is doing what one takes to be right against one's inclinations. Very well; consider the following sort of case: having incautiously read too much Kant, I nonculpably acquire the deep conviction that it is unseemly for a free, autonomous, rational being such as I to be pushed around this way by his epistemic impulses. Indeed, as I see it, this is worse than unseemly; it is wrong, and I have a duty to do what I can to free myself from the tyranny of these impulses. I therefore undertake a regimen the aim of which is to enable me to withstand ordinary impulses to believe; when my experience is of the sort normally giving rise to the belief that there is another person before me, for example, I learn to resist that belief and form instead the belief that there is no one there, or only a cleverly constructed robot. This naturally leads to a certain amount of vexation; but despite the difficulties I heroically persist in doing my duty as I see it. My friends desert me; my wife finally leaves me for someone more in step, epistemically speaking, with the rest of the world; my family finally gets me committed; I spend the rest of my days doing my duty at great cost to myself. Despite my dutifulness, however, my beliefs have little warrant; they have little of that quantity enough of which (with truth) is sufficient for knowledge. Even if the belief happens to be true, by some improbable chance, it would be wrong to say that I knew that it was. Chisholmian in-

ternalism, therefore, doesn't offer an adequate account of warrant.¹⁶

B. Coherence

A second popular current account of warrant sees it as essentially involving *coherence*. The historical credentials of Coherentism are not quite as august, perhaps, as those of Chisholmian internalism; still, it goes back essentially to the absolute idealists of the last century¹⁷ and boasts such stalwart contemporary defenders as Keith Lehrer,¹⁸ Lawrence Bonjour,¹⁹ and at least some Bayesians. The central thing to see about Coherentism is that it is what John Pollock calls a *doxastic* theory, a view according to which the warrant of a belief depends solely upon its relations to *other beliefs*. Perhaps those significant others are all of my other beliefs, or perhaps instead some significant subset of them—those that I would still have had, had I been an earnest seeker after truth, for example, or those that meet some other condition. In any event, what counts is the relation of the belief in question to other *beliefs*. And this is the Achilles' heel, the fatal flaw of Coherentism. For, clearly enough, proper relationship to other beliefs is not sufficient for a belief to have warrant for me: the belief in question must also be properly related to my *experience*. You and I are mountaineering; we are nearing the summit of the Matterhorn. I am struck by an errant burst of high energy radiation. This induces a cognitive disorder: my beliefs no longer respond to my experience in the usual way. Ordinarily, when I am appeared to in a certain way (including, for example, being appeared to blue), I form the belief that the sky is blue; due to the disorder, however, when I am appeared to in that way (including being appeared to blue) I now form the belief that the sky is not blue but red, and my other beliefs settle into a coherent pattern around this one. Despite its coherence with the rest of my beliefs, this belief still has little warrant for me.

So neither Chisholmian Internalism nor Coherentism provides a good answer to the question "What is warrant?" The third important contemporary view is the *Reliabilism* of Alvin Goldman,²⁰ Fred Dretske,²¹ William Alston²² and others. Reliabilism comes in many forms (and more than one of these forms are due to the seminal work of Alvin Goldman); but perhaps the basic idea, the guiding intuition of reliabilism is the notion that a belief has warrant if and only if it is produced by a reliable belief-producing process or faculty or

mechanism—i.e., a belief-producing process or faculty or mechanism that for the most part produces true beliefs. I shall say no more about reliabilism here, partly because the view I want to present as the sober truth bears a close relationship to it.²³

III. The Truth About Warrant

Neither Chisholmian Internalism nor Coherentism provides a satisfactory account of warrant; it is worth noting, however, that on either account it would be perfectly possible for basic belief in God (belief not accepted on the basis of propositional evidence) to have warrant. On the Chisholmian account, a belief has warrant for me if believing it is a good way for me to fulfill my epistemic duty to try to bring it about that I stand in the right relation to the truth; but if a proposition seems overwhelmingly obvious to me (and I have no equally obvious reason for doubting it), then presumably the dutiful thing for me to do is to believe it, or to take whatever other sort of action is appropriate to promote my holding the belief. So suppose I am powerfully convinced of the truth of theism (and didn't violate my epistemic duty in coming to be so convinced); and suppose I know of no reason to doubt its truth. Then that belief will have warrant for me, whether or not I have arguments for it from other things I believe. Similarly for coherentism: there is no reason why belief in God can't be appropriately coherent with the rest of what I believe (or the appropriate subset of the rest of what I believe). On these two ways of thinking about warrant, therefore, natural theology wouldn't be necessary for my belief in God to have warrant. That belief could have warrant for me whether or not I have good arguments or propositional evidence for it. But of course these two ways of thinking of warrant are mistaken (as I see it); it is time to turn to a more adequate account. Then we shall have to look to see, from the vantage point furnished by that more adequate account, whether or not belief in God requires natural theology in order to have warrant.

Here there is room for no more than the barest sketch of a better view of warrant, but perhaps that will be adequate for our present purposes.²⁴ Recall Chisholm's dutiful epistemic agents and the coherent but mistaken climber. They came to epistemic grief; each had no warrant for his belief; and in each case it was because of cognitive

pathology, because of *failure to function properly*. This suggests a necessary condition of warrant: your cognitive equipment, your belief-forming and belief-sustaining apparatus, must be free of such malfunction if your beliefs are to have warrant for you. **p** has warrant for you only if your cognitive apparatus is functioning properly, subject to no dysfunction, working the way it ought to work, in producing that belief in you.²⁵

Working properly, however, is obviously not the whole story. I have just had a thorough epistemic checkup by the best cognitive scientists at the Mayo clinic; I receive a clean bill of health; everything is working splendidly. I then join an exploratory voyage to a planet near alpha Centauri. There epistemic conditions are wholly different from on earth; elephants are invisible to human beings, but emit a sort of radiation that causes human beings to form the belief that a trumpet is sounding nearby. We crack the hatch and emerge; an alpha Centaurian elephant wanders by; I form the belief that a trumpet is sounding nearby. Although my cognitive faculties are functioning properly, that belief will not have warrant for me. Even if a trumpet *is* sounding nearby (in a soundproof telephone booth, perhaps), I won't know that it is. So the fact that my faculties are functioning properly is not sufficient for my having warrant for my beliefs. The problem is that my cognitive faculties and the cognitive environment in which I find myself are not properly attuned. We must therefore add another component to warrant: your faculties must be in good working order *and* the environment must be appropriate for your particular repertoire of epistemic powers.

Now it may be tempting to say that warrant just *is* proper functioning, so that a given belief has warrant for me to the degree that my faculties are functioning properly (in producing and sustaining that belief) in an environment appropriate for my cognitive equipment. But this cannot be the whole story. At the moment I believe both $2 + 1 = 3$ and *forty years ago I owned a blue jacket and work shoes that had been painted silver*. Both of these beliefs, I think, are produced in me by cognitive faculties functioning properly in a congenial epistemic environment; but one has a good deal more warrant for me than the other. The difference between them, in brief, is that the first seems much more obviously true than the second; I believe the first much more firmly than the second; the impulse to believe the first is much stronger than the impulse to believe the second. The beliefs that we accept are for the most part such that

our nature impels us to accept them (in the circumstances in which we do); and this impulse is much stronger in some cases than in others. The strength of this impulse, I suggest, is what determines degree of warrant (given proper function in an epistemically appropriate environment). Putting these things together, we may say that

Warrant is a matter of a belief's being produced by faculties that are (a) working properly in an appropriate environment, and (b) aimed at truth; and if a belief has warrant for you, then the greater your inclination to believe it the more warrant it has.

If we wish to introduce what is at this stage an undoubtedly spurious precision, we may say

A belief *B* has warrant for *S* if and only if that belief is produced in *S* by epistemic faculties aimed at truth and working properly (in an appropriate environment); and (in those circumstances) *B* has more warrant than *B for *S* if and only if *B* has warrant for *S* and either *B** does not or *S* is more strongly inclined to believe *B* than *B**.**

This is at best a provisional account of warrant, no more than a basic idea which stands in great need of development and qualification.²⁶ Here I shall mention just three such matters. First, the notion of proper function itself may be thought problematic: (a) unduly vague, or (b) improperly relative to our own aims and desires, or (c) such that while it fits in well with a theist's way of looking at things, it isn't available to others. As to (a), the notion *is* vague to some degree: but so is the notion of knowledge. There too there are many borderline cases, many cases where it simply isn't clear whether *S* knows *p* or not. My hope is that the vaguenesses of knowledge and proper function coincide, so that these notions waver, shimmy, or wiggle in tandem. As to (b) relativity to our own needs and desires, this just seems wrong. We can often tell whether a bird's wing or an enemy's pistol is functioning properly, even if we happen to prefer that wing or pistol to function in some other way.

And as to the third complaint, (that the notion of proper function isn't available to nontheists), again, the suggestion seems mistaken. Anyone, theist or not, can see that a horse is diseased, or that (due

perhaps to a stroke) someone's facial muscles don't work properly. Anyone, theist or not, can agree that a malfunctioning heart can lead to shortness of breath or dizzy spells, and that exposure to asbestos can lead to respiratory disorders. It is possible, of course, that the notion of proper function is tied at a deep level to theism in such a way that the only satisfying *explanations* or *analyses* of it involve divine purpose and intention or something like it: perhaps a machine or organ is functioning properly when it is functioning in such a way as to achieve the purpose for which it was designed, and furthermore working the way in which it was designed to work by the being or beings that in fact designed and made it. If so, then there lurks in the neighborhood a strong theistic argument, not an objection to this account of warrant.

Second comment: a crucially important notion here is that of specifications, or blueprint, or *design plan*: there is a design plan for our cognitive faculties. Of course this terminology doesn't commit us to supposing that human beings have been literally designed—by God for example. Here I use 'design' the way, .e.g., Daniel Dennett (not ordinarily thought unsound on supernaturalism) does in speaking of a given organism as possessing a certain design: "In the end, we want to be able to explain the intelligence of man, or beast, in terms of his design; and this in turn in terms of the natural selection of this design... ." ²⁷ When the organs (or organic systems) of a human being (or other organism) function properly, they function *in a particular way*. Such organs have a *function* or *purpose*; such an organ, furthermore, normally functions in such a way as to fulfill its purpose; but it also functions to fulfill that purpose in *just one* of an indefinitely large number of possible ways. Here a comparison with artifacts is useful. Your house is designed to produce shelter—but not in just any old way. There will be plans specifying the length and pitch of the rafters, what kind of shingles are to be applied, the kind and quantity of insulation to be used, and the like. Something similar holds in the case of us and our faculties; we seem to be constructed in accordance with a specific set of plans. Better (since this analogy is insufficiently dynamic) we seem to have been constructed in accordance with a set of *specifications*, in the way in which there are specifications for, say, the 1988 Buick. According to these specifications (here I am just guessing), after a cold start the engine runs at 1500 RPM until the engine temperature reaches 140 degrees F.; it then throttles back to 750 RPM, its warm idling speed.

Suppose we call these specifications a 'design plan'. It is natural to speak of organisms and their parts as exhibiting design, and such talk is exceedingly common: "According to Dr. Sam Ridgway, physiologist with the US Naval Ocean Systems Center in San Diego, seals avoid the bends by not absorbing nitrogen in the first place. 'The lungs of marine mammals,' Dr. Ridgway explains, 'are designed to collapse under pressure exerted on deep dives. Air from the collapsed lungs is forced back into the windpipe, where the nitrogen simply can't be absorbed by the blood.'"²⁸ And of course the design plan for human beings will include specifications for our *cognitive* faculties. According to this design plan, a person will form the belief that she sees something red when her experience is of the familiar kind that goes with perceiving a large London bus; she will not, under those conditions, form the belief that she is perceiving a small black horse. Of course the design plan also involves the sort of case where one forms a belief on the evidential grounds of another belief; here too, however, there is a specific way in which this goes on. Thus, for example, you will not form the belief that Feike can swim on the evidential grounds that 9 out of 10 Frisians can't swim and Feike is a Frisian.

This design plan, however, need not be such that every module of it is aimed at producing true belief. Someone may remember a painful experience as less painful than it was, as is sometimes said to be the case with childbirth. You may continue to believe in your friend's honesty long after evidence and cool, objective judgment would have dictated a reluctant change of mind. My belief that I will recover from a serious illness may be much stronger than is justified by the statistics of which I am aware. In these cases, the relevant faculties may be functioning properly, functioning just as they ought to, but nevertheless not in a way that leads to truth, to the formation of true beliefs. And the explanation, of course, is that the modules of the design plan involved aren't aimed at true belief, but at, e.g., willingness to have more children, or the possibility of loyalty, or recovery from disease. It is this notion of a design plan that is missing from the forms of reliabilism with which I am acquainted, and it is this deficiency that is the source of the counterexamples to reliabilism.

One final matter. It is clear, I think, that this is in fact how or nearly how we do think of warrant. We would not think of it in this way, however, if we weren't accepting a kind of *presupposition of reliability*; that is, we would not think of warrant in this way if we did not

think that when our faculties function properly in appropriate circumstances, then (in particular when the beliefs in question are firmly held) for the most part they are true, or close to the truth. I said above that my way of thinking of warrant is closer to reliabilism than to coherentism or Chisholmian internalism; the reason, of course, is this presupposition of reliability. To put it more exactly: say that a belief is *proper* if it is formed by properly functioning faculties in an appropriate epistemic environment, where the modules of the design plan involved in its production are aimed at true belief. Then, according to the presupposition of reliability, the probability (objective or statistical) of a proper belief's being true or nearly true is high; and (in general) the higher the degree of belief involved, the greater the statistical probability of truth.

The view I mean to propose, therefore, incorporates a reliabilist element; and to this extent I am enthusiastic about reliabilism. The latter, however, neglects the crucially important matters of proper function and design plan. This opens it to counterexamples, as I said above; it also precludes its giving a sensible account of *degrees* of warrant.

IV. Natural Theology Needed for Warrant?

Now suppose we return to our question: are the arguments of natural theology needed for belief in God to have warrant? Must it be the case, if my belief in God is to have warrant, that either I believe on the basis of good arguments, or I believe there *are* good arguments? Must it be the case (as Wykstra suggests) that at any rate there *are* good arguments lurking somewhere in the believing community, however *I* happen to believe? Say that a belief is *basic* for a person if she holds the belief, but does not hold it on the evidential basis of other beliefs she holds. Can my belief in God have warrant even if it is held in the basic way (and even if there are no good arguments for it in the believing community)? If so, then belief in God is more like, say, a deliverance of memory than a scientific hypothesis. From our present perspective this question is transmuted into another: when people accept belief in God in the basic way, is it the case that sometimes their faculties are functioning properly and the modules of the design plan governing the formation of this belief are aimed at truth? Or is there always, in these cases, either

malfunction or inappropriate cognitive environment or guidance by modules not aimed at truth, but at survival, or ease, or social harmony, or whatever?

We must complicate the question just a bit. Clearly one source of belief in God, particularly in children, is *teaching* or *testimony*. In the typical case, what we learn on the basis of testimony we believe in the basic way; we don't typically argue to it from premisses involving, say, the reliability of the testifier. But in asking whether basic belief in God has warrant we mean to ask more than merely whether belief in God is sometimes produced in human beings by way of the proper function of the faculties or mechanisms at work when I believe something on the basis of someone's testimony. The question is really whether belief in God is sometimes formed or strengthened by way of circumstances—experience of a certain kind, for example—*not* directly involving testimony.

The first thing to see, I think, is that there is a wide variety of circumstances—circumstances directly involving neither argument nor the testimony of others—in which as a matter of fact people *do* find themselves with new or renewed and strengthened belief in God. More exactly, what they find themselves with are beliefs immediately entailing that there is such a person as God. When I have done something I see as cheap or wrong, I may form the belief that God disapproves of what I have done; upon asking for forgiveness, I may feel forgiven and I may form the belief that God forgives me. Upon beholding the majesty of the mountains, or the glories of the starry heavens above, or the power of the ocean, or the marvelous, highly articulate beauty of a tiny flower, I may form the belief that it was good of God to have created all this. Upon reading and reflecting on the Bible, I may find myself convinced, e.g., that God really was in Christ, reconciling the world to himself. Overwhelmed by the dark splendor of Mozart's D Minor piano concerto, you may find yourself exulting in the beauty and power of the music; and you may see God as the source of that beauty and power. In these and a thousand other circumstances²⁹ many human beings do in fact find themselves with new or renewed or strengthened belief in God. According to William P. Alston,

We sometimes feel the presence of God; we sometimes get glimpses, at least, of God's will for us; we feel the Holy Spirit at work in our lives, guiding us and strengthening us, enabling us to love other people in a new way; we hear God speaking to us in the

Bible, in preaching, in the words and actions of our fellow Christians.³⁰

And according to Richard Swinburne,

For many people life is one vast religious experience. Many people view almost all the events of their life not merely under their ordinary description, but as God's handiwork. For many people, that is, very many of the public phenomena of life are viewed religiously and so constitute religious experiences. ...What is seen by one man as simply a wet day is seen by another as God's reminding us of his bounty in constantly providing us with food by means of his watering plants.³¹

The above circumstances and experiences are common, and as ordinary as every day; at any time there will be millions of people in those circumstances, subject to those experiences, forming those beliefs. But of course there are also many vastly less common experiences: Moses and the burning bush; Paul on the road to Damascus; Samuel; Isaiah; a host of other biblical and extra-biblical examples. And the question, from our present perspective, is this: (a) do experiences of these kinds sometimes contribute to someone's feeling impelled to believe in God, so that she is more strongly inclined to believe than she would be simply on the basis of propositional evidence and testimony? and (b) if so, does this ever happen in the case of someone whose faculties are functioning properly?

Karl Marx would answer 'yes' (no doubt) to the first question but 'no' to the second:

Religion...is the self-consciousness and the self-feeling of the man who has either not yet found himself, or else (having found himself) has lost himself once more. But man is not an abstract being. ...Man is the world of men, the State, society. This State, this society, produce religion, produce a perverted world consciousness, because they are a perverted world. ...Religion is the sigh of the oppressed creature, the feelings of a heartless world, just as it is the spirit of unspiritual conditions. It is the opium of the people. The people cannot be really happy until it has been deprived of illusory happiness by the abolition of religion. The demand that the people should shake itself free of illusion as to its own condition is the demand that it should abandon a condition which needs illusion.³²

Marx speaks here of a *perverted* world consciousness. Religious belief, belief in God, thinks Marx, involves a perversion, a turning away from a healthy or natural condition. This perversion is brought about, somehow, by an unhealthy and perverted social order. So the

believer suffers from intellectual or cognitive malfunction; her cognitive equipment isn't working properly. If it *were* working properly—if, for example, it were working more like Marx's—she would not be under the spell of this illusion. She would instead face the world and our place in it with the resolute and calm realization that there is no God, that we are alone, and that any comfort and help we get will have to be of our own devising. There is no Father in heaven to turn to; there is no comfort to be had outside ourselves and our own efforts.

Freud held similar if subtler views. He saw religious belief as an infantile strategy for coping with the intolerable situation in which mankind finds itself. Theistic belief, he says, arises out of wish fulfillment. We human beings find ourselves in the grip of overwhelming and impersonal forces that control our destiny—forces that take no notice, no account of us and our needs and desires; they just grind mindlessly along. Terrified, appalled, all but paralyzed, we invent a heavenly father of cosmic proportions—one who enormously exceeds our earthly fathers in power and knowledge, as in goodness and love. Beliefs of this sort, says Freud, are “illusions, fulfillments of the oldest, strongest, and most insistent wishes of mankind.”³³

According to Freud, we can see that the origin of religious belief lies in wish fulfillment as follows. “Religious ideas”, he says, “are teachings and assertions about facts and conditions of external (or internal) reality which tell one something one has not discovered for oneself and which lay claim to one's belief.” As it stands, of course, this is too broad; it would include not only the claims of religion but also what I learn by way of testimony: *there were 13 colonies at the time of the American Revolution, San Francisco is named 'San Francisco' and the population of Australia is about the same as that of metropolitan New York* are all assertions about facts of external reality which tell me something I have not discovered for myself, and which lay claim to my belief. On Freud's initial account, therefore, they too are “religious ideas.” He goes on, however, to say that a difference between religious ideas and what we learn by testimony is that in the latter case we are also told how we can *find out* the fact in question for ourselves, in a way that is independent of testimony. That certainly seems to be stretching the truth: how could I find out for myself, in a way independent of testimony, that there were 13 colonies at the time of the American revolution? Wouldn't I have to rely on history books, for example, or what my teachers

tell me? How could I find out *anything* about 18th century history without relying on testimony? And isn't the same true much more generally? I have never been told how I could find out that the population of Australia is about the same as that of metropolitan New York without relying on testimony, and I don't see how it could be done. How could I so much as know what geographical area the word 'Australia' denotes, apart from testimony—e.g., of maps and Atlases? In any event, Freud says that in the case of testimony we are told how to find out for ourselves; when it comes to "religious ideas," however, we are instead told three things: "Firstly, these teachings deserve to be believed because they were already believed by our primal ancestors; secondly, we possess proofs which have been handed down to us from these same primaeval times; and thirdly, it is forbidden to raise the question of their authentication at all" (p. 26).

It is this third point that enables us to see that religious belief has its origin in neurosis or wish fulfillment: "After all," he says, "a prohibition like this can only be for one reason—that society is very well aware of the insecurity of the claim it makes on behalf of its religious doctrines. Otherwise it would certainly be very ready to put the necessary data at the disposal of anyone who wanted to arrive at a conviction" (p.26). Religion, says Freud, is the "universal obsessional neurosis of humanity", and it is destined to disappear when human beings learn to face reality as it is, resisting the tendency to edit it to suit their fancies:

I am reminded of one of my children who was distinguished at an early age by a peculiarly marked matter-of-factness. When the children were being told a fairy story and were listening to it with rapt attention, he would come up and ask: 'Is that a true story?' When he was told it was not, he would turn away with a look of disdain. We may expect that people will soon behave in the same way towards the fairy tales of religion,... . p. 29.

He adds that "...in the long run, nothing can withstand reason and experience, and the contradiction which religion offers to both is all too palpable."

Marx and Freud both see belief in God as *illusion*; Marx goes on to claim that such belief is a disorder, brought about by a disordered, improperly functioning social order. Freud, on the other hand, sees belief in God as wish fulfillment, as *illusion*, but it is not clear that he thinks it a *disorder*. Perhaps there is no cognitive dysfunction

involved here at all; illusions, of course, have their functions too. Instead, perhaps Freud holds that the cognitive mechanisms that produce religious belief, unlike those that produce perceptual belief (or belief in psychoanalysis) are not “reality oriented”. That is to say, the modules of the design plan involved in the production of such beliefs are not aimed at truth, at the production of true beliefs; they are aimed instead at psychological survival or comfort, at the possibility of carrying on in this daunting and intimidating world in which we find ourselves. So perhaps he doesn’t see religious belief as resulting from malfunction; perhaps instead he thinks it is produced by mechanisms whose function is not that of producing true beliefs. Either way, of course, it lacks warrant.

Now the theist is not likely to agree that he displays either cognitive defect or illusion by virtue of being a theist, or even by virtue of believing in God in the basic way. As a matter of fact, he is likely to see the shoe as on the other foot; it is *unbelief, failure* to believe in God that is the diseased, unnatural, unhealthy condition. Unbelief results from an intellectual and spiritual disease, a cognitive dysfunction. Like all disease, it is ultimately a result of sin in the world³⁴ (although (like other diseases) not necessarily a result of sin on the part of the sufferer). As John Calvin, for example, sees the matter, God has created us with a *nisus* or tendency or disposition to see his hand in the world around us; a “sense of deity”, he says, “is inscribed in the hearts of all”. He goes on:

Indeed, the perversity of the impious, who though they struggle furiously are unable to extricate themselves from the fear of God, is abundant testimony that this conviction, namely, that there is some God, is naturally inborn in all, and is fixed deep within, as it were in the very marrow... . From this we conclude that it is not a doctrine that must first be learned in school, but one of which each of us is master from his mother’s womb and which nature itself permits no man to forget.³⁵

It is only because of the results of sin, only because of this unnatural fallen condition, Calvin thinks, that some of us find belief in God difficult or absurd. If it weren’t for sin and its effects, we human beings would believe in God with the same sort of natural spontaneity and to the same degree that we believe in the existence of ourselves, other persons, and the past. This is the *natural* human condition, the condition of a person all of whose cognitive faculties are functioning properly. The fact is, Calvin thinks, one who does not believe in God

is in an epistemically defective position—rather like someone who, by virtue of some cognitive defect or other, does not believe that there really are other people with thoughts and feelings and beliefs, or believes that his wife is really an ingeniously constructed robot. The believer thus pays to Freud and Marx the compliment the latter paid to Hegel: he stands them on their heads. What they see as sickness, he thinks, is really health; and what they see as health is really sickness.

Here we come to an important point. Our question was: is natural theology needed for belief in God to have warrant? Alternatively: can belief in God taken in the basic way have warrant? And the important point is that this epistemological question is not ontologically neutral: it has ontological or religious roots. The answer you properly give to it will depend upon what sorts of beliefs you think will be produced by the faculties of a person whose epistemic faculties are functioning properly: more exactly, by properly functioning faculties or mechanisms whose purpose is the production of true beliefs. This is a question about the nature of human beings, a question the answer to which belongs in philosophical anthropology and hence in ontology. So if we trace the epistemological question back we find (with apologies to John Austin) an ontological question grinning residually up at us from the bottom of the mug. Your view as to what sort of creature a human being is will determine or at any rate heavily influence your views as to which basic beliefs have warrant; for your view as to what sort of creature a human being is will determine or at any rate heavily influence your views as to what sorts of beliefs will be produced in the basic way by properly functioning human cognitive faculties. So the dispute as to whether theistic belief needs argument—i.e. natural theology—to be warranted can't be settled just by attending to epistemological considerations; it is at bottom not merely an epistemological dispute, but an anthropological and thus ontological dispute.

Indeed, this question isn't merely anthropological; it is also theological. What you take to have warrant in the basic way is obviously dependent upon the sort of theological and religious stance you adopt. You may think humankind is created by God in the image of God—and created both with a natural tendency to see God's hand in the world about us, and with a natural tendency to recognize that we have indeed been created and are beholden to our creator, owing him worship and allegiance. Then you will be unlikely to think of

basic belief in God as in the typical case a manifestation of wishful thinking or any other kind of intellectual defect; nor will you be likely to think that the appropriate modules of the design plan are not aimed at the production of true beliefs. On this view, basic belief in God will resemble sense perception, perhaps, or memory, or perhaps the faculty responsible for *a priori* knowledge. On the other hand, you may think we human beings are the product of blind evolutionary forces; you may think there is no God, and that we are part of a Godless universe. Then perhaps you will be inclined to accept the sort of view according to which basic belief in God is an illusion of some sort, to be traced to disease or dysfunction on the part of the individual or society. Our epistemological question is thus deeply intertwined with ontological and theological questions.

V. The Function of Natural Theology

Now at long last we can return to our question about the need for natural theology. If I am right, it isn't needed for justification: one does not necessarily flout a duty in believing in God in the basic way, i.e., without believing on the basis of propositional evidence. Is it needed for warrant? This question, as we have just seen, isn't ontologically neutral. If you think there is no such person as God, the question whether belief in God has warrant will be like the question, from a theistic perspective, whether atheism has warrant: an interesting (or uninteresting) side issue. If you think there is no such person as God, you will likely think theistic belief taken in the basic way does not have non-testimonial warrant. From this perspective, perhaps a given person's belief in God may have testimonial warrant, the sort of warrant a belief has for me when I accept it on the basis of testimony or teaching; but even that warrant will be slender and flawed. Consider a young tribesman whose elders fill him with false beliefs about the stars—that, for example, they are slits in a great canvas pulled over the earth every evening to permit us a good night's sleep. There is nothing wrong with his faculties; still his beliefs have little by way of warrant. From a nontheistic perspective, therefore, belief in God will have little or no warrant if it is held in the basic way. Still, it might have the sort of warrant enjoyed by a false belief for which there are convincing if ultimately unsound arguments. From a nontheistic perspective, then, it will be natural

to think that the arguments of natural theology will indeed be needed for belief in God to have warrant.

From a theistic perspective—at any rate a Christian theistic perspective—on the other hand, things look quite different. On Calvin's view, properly functioning human cognitive capacities will indeed produce belief in God; the modules of the design plan governing the production of these beliefs are indeed aimed at truth; belief in God taken in the basic way, therefore, does indeed have warrant. Hence natural theology is not needed for belief in God to have warrant; the natural view here, in fact, will be that many people *know* that there is such a person as God without believing on the basis of the arguments of natural theology.³⁶ Of course it doesn't follow that natural theology has no role *at all* to play; there are lots of roles to play besides that of being the sole source of warrant.

And even if such arguments are not needed for theistic belief to have warrant (even if they are not the sole source of warrant for theistic belief), it doesn't follow that they cannot play the role of *increasing* warrant, and *significantly* increasing warrant. Here it may be useful to make a comparison with other beliefs that have warrant in the basic way. We all believe that there are other persons, other beings with thoughts, feeling and beliefs. I take it the belief that there *are* such persons (perhaps more specifically, beliefs *entailing* the belief that there are such persons, such as the belief that Paul knows how to prove the fundamental theorem of the calculus) have warrant for me, and have it in the basic way. Would the warrant this belief has for me be significantly increased if I discovered a successful (ultimately noncircular³⁷) analogical argument for other minds? Well, perhaps a bit; but probably not much. No doubt I would have known that there are other persons before I encountered the argument in question. The increase in warrant, if any, wouldn't be very significant. In the case of belief in God, however, things aren't nearly so straightforward. As we saw above, an essential feature of the degree of warrant a belief has for me is the strength with which I hold the belief in question. My coming upon a good argument for other minds is not likely to strengthen my belief in other minds; I will already believe very firmly that there are other minds. In the case of belief in God, however, things might be different. Perhaps my belief in God, while accepted in the basic way, isn't firm and unwavering; perhaps it isn't nearly as firm as my belief in other minds. Then perhaps good theistic arguments could play the role of confirming and strengthen-

ing my belief in God, and in that way they might increase the degree of warrant belief in God has for me. Indeed, such arguments might increase the degree of warrant of that belief in such a way as to nudge it over the boundary separating knowledge from mere true belief; they might in some cases therefore serve something like the Thomistic project of transforming belief into knowledge.

Finally, I said above that natural theology may play these roles *if there are any good theistic arguments*. Are there? None of the traditional theistic arguments, I think, measures up to the standards traditionally applied to them. None starts from premisses that are self-evident (or even accepted by every reasonable person who considers them) and proceeds inexorably by self-evident argument forms to the conclusion that theism is true; none of them meets the exalted standards traditionally applied to them.³⁸ But then no other philosophical arguments for interesting conclusions meet those standards either. Take your favorite philosophical argument: Quine's argument for the indeterminacy of translation, or Kripke's argument against the Russell-Frege account of proper names, or Searle's oriental argument against functionalism: none of these, nor any other philosophically worthwhile arguments, meets these standards. But of course there *are* good philosophical arguments. The problem isn't with philosophical arguments, but with those standards: they are wholly unrealistic. So suppose we apply more reasonable standards to natural theology (suppose we apply the same standards that we apply with other philosophical arguments): are any theistic arguments good arguments, as judged by those more reasonable standards? I think so; in fact I think there are *many* good theistic arguments. There are good arguments from the nature of sets, of propositions, of numbers, of properties, of counterfactual propositions. There are good arguments from the nature of knowledge, from the nature of proper function, from the confluence of proper function with reliability, from simplicity and from induction. There are good moral arguments; good arguments from the nature of evil; from play, enjoyment, love, nostalgia; and perhaps from colors and flavors³⁹. There is no dearth of good theistic arguments; but this is not the place to explore them.⁴⁰

Notes

1. Here I follow E. Gilson's *The Spirit of Mediaeval Philosophy*, trans. by A.C. Downes. (New York: C. Scribner's Sons, 1936), chapters 1 and 2;

- and N. Wolterstorff's "The Migration of the Theistic Arguments: From Natural Theology to Evidentialist Apologetics" in *Rationality, Religious Belief & Moral Commitment*, ed. Robert Audi and William Wainwright (Ithaca: Cornell University Press, 1986).
2. In *general*; that is, there is a cognitive gain in the transition from faith to *scientia*. But there may also be *loss* of one sort or another, since according to Aquinas faith is a virtue; so it could be that (for a given person) on balance the transition from faith to knowledge wasn't a good thing.
 3. See my "Two Concepts of Modality: Modal Realism and Modal Reductionism", in *Philosophical Perspectives, 1, Metaphysics*, 1987, ed. James Tomberlin (Atascadero: Ridgeview Publishing Co., 1987), p.207-208.
 4. In *Lectures and Essays* (London: Macmillan, 1879).
 5. *The Will to Believe and Other Essays* (New York: Longmans, Green, and Co., 1897).
 6. As James himself remarks: see *James's Will-to-Believe Doctrine: A Heretical View* by James C.S. Wernham (Montreal: McGill-Queen's University Press, 1987) p. 6.
 7. *Op. Cit.*
 8. *Reason and Belief* (New Haven, Yale University Press, 1974) p. 401. See also the other citations in Plantinga, "Reason and Belief in God" in *Faith and Rationality* (Notre Dame: The University of Notre Dame Press, 1983) pp. 29 ff.
 9. See Nicholas Wolterstorff's "The Migration of the Theistic Arguments: From Natural Theology to Evidentialist Apologetics" in *Rationality, Religious Belief & Moral Commitment*, ed. Robert Audi and William Wainwright (Ithaca: Cornell University Press, 1986) and see chapter I of what I hope is my forthcoming book *Warrant: the Current Debate*.
 10. To see how, in more detail Locke thinks we are to regulate our belief and how such regulation fits in with irrational sources of belief and our lack of direct control over belief, see Wolterstorff, *Ibid.*
 11. See my "Reason and Belief in God" in *Faith and Rationality*, ed. A. Plantinga and N. Wolterstorff (Notre Dame: the University of Notre Dame Press, 1983, pp. 25-ff.
 12. See "Reason and Belief in God" pp. 42ff. and 47ff.
 13. See my "Justification and Theism", *Faith and Philosophy* (special issue edited by Alvin Plantinga) Oct. 1987, "Positive Epistemic Status and Proper Function" in *Philosophical Perspectives, 2, Epistemology*, 1988, ed. James Tomberlin (Atascadero: Ridgeview Publishing Co., 1988) and *Warrant: the Current Debate*, chapters I-IX.
 14. Though with a difference: for Locke epistemic duty doesn't involve propositions that are certain for me, but only those that are not; Chisholm doesn't make such a distinction.
 15. See his *Theory of Knowledge* (Englewood Cliffs, N.J.: Prentice-Hall (first edition 1966; 2nd edition, 1977)) and *Foundations of Knowing* (Minneapolis: University of Minnesota Press, 1982).
 16. I.e., what I shall call 'Classical Chisholmian Internalism'—the work of *Theory of Knowledge* and *Foundations of Knowing* does not. In some

of Chisholm's most recent writing there is a different account of warrant—an account that I believe is also wanting. (See his "The Place of Epistemic Justification" in *Philosophical Topics*, ed. Roberta Klein, vol. 14, number 1, and Chisholm's "Self-Profile" in *Roderick M. Chisholm*, ed. Radu Bogdan (Dordrecht: D. Reidel, 1986) p. 52 ff.; and see my *Warrant: the Current Debate* chapter III "Post-Classical Chisholmian Internalism").

17. E.g., F. H. Bradley, B. Bosanquet, and, as one born out of time, Brand Blanshard.
18. *Knowledge* (Oxford: Oxford University Press, 1974).
19. *The Structure of Empirical Knowledge* (Cambridge, Mass: Harvard University Press, 1985).
20. *Epistemology and Cognition* (Cambridge, Mass.: Harvard University Press, 1986).
21. *Knowledge and the Flow of Information* (Cambridge, Mass.: MIT Press, 1981).
22. "Concepts of Epistemic Justification" *The Monist* (January, 1985) and "An Internalist Externalism" *Synthese*, vol. 74, no. 3 (March, 1988).
23. I do think the prominent contemporary versions of reliabilism—for example, Goldman's, Dretske's, Alston's, Nozick's—all suffer from crucial problems. See my "Positive Epistemic Status and Proper Function" for animadversions on Dretske, Nozick and the early Goldman, and see *Warrant: the Current Debate* (chapter IX) for similar comments on Alston, Dretske and the later Goldman.
24. For a fuller account see "Positive Epistemic Status and Proper Function", "Justification and Theism", and chapters I and II of what I hope is my other forthcoming book, *Warrant and Proper Function*.
25. Of course this is not the same thing as one's cognitive equipment functioning *normally*, in the statistical sense.
26. See *Warrant and Proper Function*, chapters I and II.
27. *Brainstorms* (Montgomery, VT: Bradford Books, 1978) p. 12.
28. *National Geographic* vol. 171 no. 4 (April, 1987), p. 489.
29. Sometimes of the very sort often cited as counting *against* belief in God: thus Mother Teresa claimed that we see Christ in the faces of the poor and sick. What she meant, I think, (among other things) is that beholding intense and calamitous suffering can strengthen rather than weaken belief in God, can bring us closer to him rather than estranging us from him.
30. "Christian Experience and Christian Belief" in *Faith and Rationality* p. 103.
31. *The Existence of God* (Oxford: Clarendon Press; New York: Oxford University Press, 1979). pp. 252-253.
32. (*Introduction to a Critique of the Hegelian Philosophy of Right*, in K. Marx and F. Engels, *Collected Works* vol 3.)
33. *The Future of an Illusion* (New York: W.W. Norton & Co., 1961 (first German edition 1927)) XXI 30.
34. According to St. Paul (*Romans* 1) unbelief ultimately originates in an effort, as he puts it, to "suppress the truth in unrighteousness".

35. *Institutes of the Christian Religion*, tr. Ford Lewis Battles (Philadelphia: Westminster Press, 1960), pp. 43-44. (Here Calvin speaks of belief in God as “inborn in all, ... fixed deep within ...” What he means, I think, is not that belief in God is as such innate or inborn in all; what is thus inborn (in properly functioning human beings) is a tendency to *form* belief in God under appropriate circumstances; see “Reason and Belief in God” pp. 80-82.
36. And this need not contradict the Thomistic view that *scientia* of God, in our present condition, requires the arguments of natural theology; for *scientia* is a narrower notion than what goes with the contemporary ordinary use of ‘knowledge’.
37. The argument *Paul has a fine mind; therefore there are other minds* is sound, but not ultimately noncircular for me.
38. See George Mavrodes, *Belief in God* (New York: Random House, 1970).
39. See Robert Adams’ *The Virtue of Faith and Other Essays in Philosophical Theology* (New York: Oxford University Press, 1987), “Flavors, Colors, and God”, pp. 243 ff.
40. My gratitude for sharp criticism and wise advice to Eleonore Stump and to the Calvin College Tuesday Colloquium, in particular Kenneth Konyndyk, Del Ratzsch and Stephen Wykstra.