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WILLIAM HEYTESBURY ON KNOWLEDGE: EPISTEMOLOGY WITHOUT NECESSARY AND SUFFICIENT CONDITIONS

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SOMETIME around 1335 William Heytesbury proposed the following account of what he called knowledge in the ordinary sense (*scientia communiter loquendo*):

> . . .to know is nothing other than unhesitatingly to apprehend the truth — i.e., to believe unhesitatingly that it is so when it is so in reality.[1]

Although this is one of the few pre-modern attempts to give an account of knowledge in the sense in which we now use that term, Heytesbury's proposal has scarcely been noticed in recent centuries, even by historians of medieval philosophy. At first glance this neglect might appear justified, for the proposal faces obvious difficulties which were noticed immediately by other philosophers of Heytesbury's era. But despite the ease with which counterexamples can be formulated, Heytesbury's proposal deserves our attention. Its apparent inadequacy and naïveté stem from the mistaken presupposition that Heytesbury must be putting forth a criterion of knowledge. Once we set aside this interpretative bias — a bias founded on the assumption that a theory of knowledge must be based on necessary and sufficient conditions for what knowledge is — then it's easy to recognize that Heytesbury has something interesting to say. What he gives us is not a criterion for knowledge, but that makes it no less interesting.

1. THE OBVIOUS PROBLEM

The quotation above is taken from a longer passage which makes it clear that Heytesbury intends this account to apply to a particular range of cases. The passage comes on the heels of a discussion involving knowledge of the contingent proposition that someone is king. He says:

> Thus speaking generally, in the way that contingents of that sort and accidental sensible characteristics are known, to know is nothing other than unhesitatingly to apprehend the truth — i.e., to believe unhesitatingly that it is so when it is so in reality. For in that way I know that Rome was a beautiful city, that there are many men in Oxford, that this one is awake, that that one is asleep, and so on.[2]

It is clear from this passage, and from the treatise's opening words — "the word 'know' is used in many ways" — that Heytesbury intends this account of knowledge to apply to a particular sort of knowledge. His expression *'scientia communiter loquendo'* could be translated in several ways: "knowledge taken broadly," "knowledge loosely speaking," or "knowledge as commonly conceived." But, as he says at the outset of the passage just quoted, he is concerned with knowledge of contingent truths and "accidental sensible characteristics." The examples he goes on to give make it clear exactly the sort of thing he has in mind: facts about the world based (at least typically) on sense perception. One sees that someone is awake or asleep, or that there are many men in Oxford; one reads that Rome was beautiful.[3]

It's not certain whether Heytesbury means knowledge in this general sense to cover *only* ordinary empirical knowledge, or whether it includes this as well as demonstrative knowledge.[4] Either way, it's clear that Heytesbury takes ordinary empirical knowledge as his paradigm, and that first and foremost he is giving an account of knowledge of that sort. Notice, however, that none of his examples is a perfectly straight-forward case of empirical knowledge. One infers that someone is asleep; one likewise has to infer, typically, that there are now many men in Oxford; and one relies on the testimony of others in believing that Rome was beautiful. None of these beliefs are based immediately and directly on sensory perception. This points to the breadth of the sort of knowledge he has in mind. He doesn't mean to include just the most direct and paradigmatic cases of sense perception (e.g., that thing is red). What he rather has in mind — as is suggested by the phrase *scientia communiter loquendo* — is ordinary, everyday, garden-variety, empirical knowledge.

Unfortunately, Heytesbury says practically nothing more about his proposal. Presumably, the reason for this is that his focus in this work is on analyzing sophismata (linguistic paradoxes) and not on epistemology. In the context of Heytesbury's treatise the passage under consideration is peripheral — he devotes no more than a few paragraphs to the thought, and never returns to it. His brevity is especially unfortunate because the proposal appears so inadequate as to be almost a non-starter. He introduces his analysis with the formula ". . .to know is nothing other than. . .," which suggests that he is about to give us a strict criterion for knowledge. But what follows seems at best incomplete if that were its point. Ivan Boh, who is practically the only philosopher in recent years to work on Heytesbury's epistemology and the *De scire et dubitare* literature generally, comes to the conclusion one would expect when he says that "one could never set up [Heytesbury's account] as a viable definition of knowledge even of contingent propositions."[5] Heytesbury's near contemporaries noticed the same problem. Peter of Mantua, writing around the end of the fourteenth century, offers a nice counterexample — specifically addressed to Heytesbury — in the chapter of his *Logica* entitled "De scire et dubitare."

> Let it be posited that Plato is before you, and that you know that he is running and that you believe that he is Socrates, with the result that you believe firmly that Socrates is running. But Socrates is running in Rome, although you don't know it. In that case you know that Socrates is running and you don't know that Socrates is running.[6]

The argument hardly needs further elaboration. As the example stands, according to Heytesbury's thesis, you know that Socrates is running. For you believe unhesitatingly ("firmly") that Socrates is running, and in reality Socrates is running. But it seems obvious that you know no such thing.

Why shouldn't this be considered knowledge? According to Peter "you do not know that Socrates is running because *there is no evidence* through which you know that Socrates is running."[7] Cajetan of Thiene (1468-1534), discussing Heytesbury in light of Peter's counterexample, puts the argument in much the same way:

> Nevertheless you do not know that Socrates is running because *you have no evidence* on account of which you so know. For you have evidence of Plato's running in front of you, which does not make it the case that you know that Socrates is running.[8]

Neither Cajetan nor Peter attempts to say precisely what sort of evidence is needed for knowledge. (Indeed, as we'll see shortly, each tries to preserve Heytesbury's proposal as a criterion for knowledge without adding a further clause requiring evidence.) In retrospect it is no wonder Cajetan and Peter are rather vague. It's quite difficult to specify *exactly* what it is in the above scenario that you lack, what it is that leaves you without knowledge and makes this a successful counterexample. We might say that you have no good reason to believe that Socrates is running, or that it's just pure luck that he really is running, or — as Cajetan and Peter say — that the evidence for your belief is wholly inadequate. Until we decide on the correct criteria for knowledge we have to rely on our commonsense ideas about knowledge in evaluating any proposed criteria. But measured by these commonsense standards, Peter's counterexample seems devastatingly effective. (Boh characterizes Peter's counterexample as "rather fatal" to Heytesbury's account.[9]) On Heytesbury's proposal, taken as a criterion, wishful thinking, if right, would count as knowledge when believed unreservedly. So would insane prophesies, arrogant surmises and wild but firmly believed guesses — if they turn out to be true. Peter's counterexample is just one instance of this sort. Heytesbury seems simply not to have considered the possibility that we might believe something firmly, and yet just be lucky when it turns out that that belief is true.

The difficulty is that Heytesbury's requirement of belief *without hesitation* is entirely subjective. One can believe unhesitatingly without having good evidence for doing so; one can believe unhesitatingly in the most irrational circumstances. If Heytesbury meant to build some sort of objective constraint into his account — e.g., that the belief be truth-tracking, or

rational, or something else of this sort — he certainly failed to convey that intent. Both Peter and Cajetan take Heytesbury to be speaking of a merely subjective state — of a psychological readiness to believe without reservation, to "believe firmly" as Peter puts it above. Note that the exact nature of Peter's counterexample would depend on filling in the story more. Why, for instance, have you taken Plato to be Socrates? Did you attempt, for instance, to make the identification from a great distance? Is Plato in disguise? Are they twins? But it seems clear that without some further restraint Heytesbury's account will not match very well with our ordinary concept of knowledge.

We can also raise problems for Heytesbury if we take him to be proposing that unhesitating belief is a necessary condition on knowledge. For it seems that occasionally, at least, one knows something but is nevertheless reluctant to believe it. One might for instance know that a close friend has died and yet have a very difficult time believing this. Consider also the conclusion of a long and complicated deduction. One might be quite certain that a particular outcome is entailed by an argument, but still have a hard time believing that conclusion, at least at first. (If nothing else comes to mind, think of balancing your checkbook.) These examples seem to show that Heytesbury's conditions are no more necessary than they are sufficient for knowledge. One might reply that these examples are not paradigm cases of knowledge. But even if this were so it seems odd to exclude them entirely from the realm of knowledge and insist that *all* knowledge involves unhesitating assent.

Both Peter and Cajetan, despite clearly identifying the problem which confronts Heytesbury, try to salvage his proposal. The two agree in treating it as a criterion for knowledge, and each tries to sidestep counterexamples like the Plato/Socrates one above while leaving the original proposal basically intact. Peter thought the theory could be salvaged by adding an additional requirement to Heytesbury's original thesis. According to Peter, you know that Socrates is running if and only if

> . . .you believe firmly that Socrates is running while you are not deceived about the signification of any of these terms 'Socrates' and 'is running', and Socrates is running.[10]

Peter clearly takes Heytesbury's proposal to be a criterion for knowledge — and so he tries to fix it by adding an additional clause. In the case of the Plato/Socrates counterexample, where you believe that Plato is Socrates, the addition works. Since you most certainly are confused about the signification (i.e., the reference) of the term 'Socrates,' you can't, in the example, be said to know that Socrates is running. (It's also worth noting that his proposal is effective against some varieties of the Gettier problem, where the referent of, say, 'the man who will get the job' is exactly what is at issue. You don't know that the man who will get the job has ten coins in his pocket, because you think 'the man who will get the job' refers to Jones.[11])

But it's not difficult to see that Peter's proposed revision is inadequate as a general rule. As a criterion for knowledge this restriction on reference, when combined with Heytesbury's original proposal, is neither necessary nor sufficient. By altering somewhat the original counterexample, it is easy enough to formulate an example that violates the Heytesbury-Peter criterion. Imagine that you believe firmly that Socrates is angry, and you base your belief on the fact that he is scowling. Socrates actually is angry. But unbeknownst to you, Socrates always has a scowl on his face, whether he is angry or not. So your belief that Socrates is angry, although you believe it firmly and it is true, is not knowledge, just as your belief that Socrates is running was not knowledge. But in the present case it does not seem that you are confused about the signification of the terms. You understand what 'Socrates' signifies; you understand what 'is angry' signifies. (You may be confused about the signification of the scowl, but that's not one of the terms in the proposition you believe.) So in this revised counterexample all of Peter's criteria are met, but you don't have knowledge. Such examples can easily be multiplied. I'm sure the Twins are going to win the World Series next year. Let's imagine that in fact they are. But obviously I don't know that, despite my confidence in them. In general Peter of Mantua's proposal is far too *ad hoc* to turn Heytesbury's proposal into a satisfactory criterion for knowledge.

It's also not clear that Peter's added criterion is necessary. This will depend on what he means by *signification*.[12] There is a sense, for instance, in which if you lived in the fourteenth century you would have been deceived about the signification of 'St. Dionysius' insofar as you would have wrongly taken that name to refer to the author of the *De divinibus nominibus* and various other Christian neo-Platonic works. Still you might *know* that St. Dionysius was a first-century Athenian Christian, converted by St. Paul. And you might know this while being deceived all the while about the signification of 'St. Dionysius.' To avoid counterexamples of this sort Peter will have to treat signification as *reference*, and will have to have an account of reference on which you can be correct in the reference of a word even while mistaken in some elements of the description you would give to pick out the object that is the referent. Even when taken in this way, however, it's not clear that Peter's addition is necessary. It seems, for instance, that I might know that the author of the *De divinibus nominibus* was a Christian — while wrongly thinking that the author in question is St. Dionysius. It's possible that with enough ingenuity Peter could sidestep all such counterexamples to the necessity of his amendment. But on the face of things it seems that his revisions result in a criterion that is neither necessary nor sufficient.

Cajetan, writing not long after Peter, has a different strategy for saving Heytesbury. After noting that "some" have opted for Peter's solution — no names are mentioned, but Cajetan clearly has Peter himself in mind — Cajetan claims that the Plato/Socrates counterexample can simply be denied.

> But it seems to me that we can in the first case [Peter's case] concede that I do know that Socrates is running. For although I don't know that Socrates is running by these propositions — 'this is running' and 'this is Socrates' — when they are picking out Plato, whom I believe to be Socrates, nevertheless I know that Socrates is running by this proposition — 'Socrates is running' — which is true and firmly believed, signifying precisely that Socrates is running.[13]

Here Cajetan distinguishes two different ways of analyzing the counterexample. Peter's appeal to reference is successful, according to Cajetan, only on one analysis. First, we might take my belief to be based on two simpler propositions: *this is running* and *this is Socrates*, where the referent in each is Plato.[14] When the grounds of my belief are analyzed in this way, it's clear that I am relying on an unsound inference: it's false that this is Socrates. But the mere fact that I'm relying on an unsound inference doesn't show that I don't have knowledge, at least as far as Heytesbury's proposal is concerned. On Heytesbury's proposal, when understood as a criterion, unhesitating true beliefs will be knowledge regardless of whether they are based on a sound or unsound inference. Cajetan nevertheless draws attention to the grounds of my belief in this case because here it is plausible to hold that I *am* deceived in the reference of one of the terms. In this case Peter's analysis rightly applies. But on a second analysis of the case, Cajetan holds that I would have knowledge despite the circumstances of the alleged counterexample. If I firmly believe that Socrates is running, and if the term 'Socrates' in that belief picks out the real Socrates (who happens to be in Rome), then I do have knowledge. When the circumstances are considered in this way there is no reason to think I am confused about the reference of the terms in my belief.

So Cajetan claims that Peter's treatment of the counterexample is effective only on one interpretation: when the knowledge is arrived at through the unsound inference he described above. In such a case my belief is based on the two premises of the inference — that man is running, and that man is Socrates — and here I clearly am involved in a reference confusion. But I might in the situation described come to believe simply that Socrates is running, without making any such inference, and in such a case there is no basis for insisting that a reference confusion is involved. Of course my true belief would still be based on false evidence, but that doesn't show that the referent of my belief is Plato. Cajetan's point here seems plausible. I might see Plato running, come to believe that Socrates is running, and go on for a while thinking about good old Socrates and what a speedy fellow he is. In such a case there is no basis for accusing me of being confused in the signification of my beliefs. It's plain I'm thinking about Socrates. So Cajetan denies that Peter's treatment of the proposed counterexample is effective in every case.

But it may seem that Cajetan is now hurting Heytesbury more than helping him. For how, in the case described, can I *know* that Socrates is running? My evidence — Plato's running — seems decidedly bad, and

Cajetan, like Peter, had formulated the counterexample in terms of the need for evidence (nn.7-8). Cajetan's reply here is not very satisfying. For one thing, he says, it can't be true that I have no apprehension (*notitia*) of Socrates. I couldn't believe that Socrates is running "unless I were to have an apprehension of Socrates and I were to cognize him."[15] But this seems to show merely that I must at some point have become familiar with Socrates. This certainly doesn't count as evidence for Socrates' being running. It appears Cajetan would simply deny that any such evidence is needed. For he goes on to say that "often false things produce an apprehension of true things,"[16] which suggests he sees nothing wrong with the possibility of coming to know that Socrates is running solely on the basis of having seen Plato running. This is not an uninteresting avenue for exploration, but Cajetan gives it no more than this passing glance. Apparently he fails to see the apparently devastating difficulties confronting a theory of knowledge along these lines. If Cajetan would allow knowledge in the Plato/Socrates case, would he also allow knowledge based on unsound inferences, or knowledge based on lucky guesses? A successful defense of Heytesbury would have to take up these problems.

We have yet to see anything like a cogent defense of Heytesbury's proposal when understood as offering necessary and sufficient conditions for knowledge. If no more can be said on behalf of his account then it is no wonder it has received so little attention. So long as we assume that Heytesbury is offering a *criterion* of knowledge we won't be able to say much to make his theory look more interesting. As a criterion of knowledge, his account simply doesn't have much going for it. In fact, however, Heytesbury isn't giving us a criterion at all. To this end it will helpful to look at some of the scholastic antecedents of his proposal.

2. The Medieval Background

Epistemology as we think of it got a late start in the Middle Ages. (One reason for this was that Plato's dialogues were unknown, and so no inspiration could be drawn from the *Theaetetus* or the *Meno*.) It is Henry of Ghent who deserves credit as the first scholastic to take seriously both the problem of skepticism and the need to give an analysis of ordinary empirical knowledge. At the outset of his *Summa quaestionum ordinariarum* (circa 1277), Henry declares that

> I take 'to know' [*scire*] broadly for every certain apprehension by which a thing is cognized as it is, without any mistake or deception.[17]

Among Aristotelians it was standard to treat '*scientia*' as the product of a demonstrative syllogism. In this sense, common among scholastic authors, only necessary truths could be known.[18] But at the same time that '*scientia*' was being given this extremely narrow technical definition, it was being used routinely as a general, non-technical term for ordinary, empirical knowledge — e.g., the knowledge that Socrates is white, or that that man

is the king. Given this ordinary usage, it was inevitable that *'scientia'* and its cognates would come to be defined in a broader sense, and this is what we see Henry of Ghent attempting to do. His is an earlier attempt at the same project as Heytesbury's: to understand the more inclusive, casual sense of the term 'knowledge' that is not limited strictly to demonstrative proofs.

Although most of the subtleties of Henry's own account of "knowledge in a broad sense" may be passed over, one detail needs to be noticed. When Henry says that the apprehension must be *certain*, his claim is ambiguous. He might on the one hand be arguing that the apprehension must be *objectively* certain — i.e., that there must in actual fact be no possibility of error. This is a characterization of knowledge that appears frequently in other thirteenth-century accounts of knowledge.[19] On the other hand, Henry might be calling for *subjective* certainty. He might mean, that is, that knowledge requires an apprehension about which the subject *feels* certain. These are obviously two very different claims; further study of Henry's position would be required to decide which of the two he means. But the relevant point for our purposes is that Heytesbury's "believe *unhesitatingly*" requirement calls for something much like the subjective certainty that one might see in Henry's proposal. To be sure, the two need not be identical. Unhesitating belief seems to be a matter of behavior or disposition. Subjective certainty, on the other hand, suggests an element of self-evaluation. In many cases the question 'Am I certain?' never comes up; sometimes, moreover, we believe without hesitation something that, on reflection, we find we are not certain about. Nevertheless there is a tight connection between these two proposals, insofar as anyone who is certain about something will believe it without hesitation. So Heytesbury's standard would be met by anyone who met the subjective certainty standard. But the inverse does not hold; the subjective certainty proposal is more strict.

It's unclear whether Henry of Ghent means to link knowledge with subjective certainty. But we can find several philosophers in the fourteenth century who clearly do so. Robert Holcot, writing just a few years before Heytesbury, makes the following attempt to distinguish knowledge from doubt:

> The term 'knowledge' is one term standing for a number of signs ordered to signify something true or false. *And at the same time as this it connotes or imports that it is certain to intellect that things are in reality as is denoted by that [proposition].* But the term 'doubt' sometimes stands for the same proposition, and at the same time imports or connotes that the intellect was not certain whether things were or were not in reality as they are denoted by that proposition.[20]

The similarity between the part of the text emphasized here and Heytesbury's thesis is obvious and striking. Holcot clearly has in mind subjective certainty; this is clear from the fact that he refers to its being not certain

simpliciter, but "certain *to intellect*" that things are as is denoted. Likewise he says of doubt that it connotes subjective uncertainty on the part of intellect. Holcot gave this quodlibetal question in Cambridge in 1333.[21] Heytesbury's *Regulae*, according to the *explicit* of one manuscript, dates from Oxford in 1335.[22] So it would be reasonable on this basis to wonder about a connection between the two accounts.

Despite the similarities, however, Holcot is up to something very different from Heytesbury's concerns. Holcot is concerned with the fourteenth-century controversy over the objects of knowledge.[23] According to him, what one knows is a proposition — e.g., a written or spoken sentence, or a thought. The same, he holds, is true of doubt and other propositional attitudes. So knowing, doubting, believing, etc. are all relations of a cognitive subject to a proposition, as we might put it. (In the above passage he refers to a proposition as "a number of signs ordered to signify something true or false.") This account raises the question of what distinguishes different attitudes directed to the same proposition. Holcot's answer is that the difference between knowing and doubting a given proposition consists in the presence or absence of the subject's subjective certainty. Holcot needs to invoke subjective certainty, in other words, only to distinguish knowledge from other propositional attitudes. This means that he does not need to offer a complete or general analysis of knowledge, but only a single individuating condition that can mark knowledge off from doubting, fearing, and the rest. Note that Holcot doesn't even include the most obvious of necessary conditions for any kind of knowledge: that the belief be true. Heytesbury, in contrast, does think it necessary to include as the condition that the belief be true. In addition, Heytesbury uses the formula noted already — ". . .to know is nothing other than. . ." — which serves to emphasize that this is, in some sense, an analysis that the reader is being given. Finally note that in his *Sentences*-commentary, when he is not concerned with the controversy over the objects of knowledge, Holcot gives a very different account of knowledge, one which entirely omits any mention of certainty or unhesitating belief.[24] So even if there is an historical link between Heytesbury and this quodlibetal question of Holcot's, we are far from a satisfactory answer to the question of what led Heytesbury to advance his thesis.

It may be, however, that both Holcot's and Heytesbury's source is their fellow Englishman William Ockham. In the prologue to his *Expositio* of Aristotle's *Physics* (c.1322), he notes that knowledge "is taken in many ways" — almost the same words with which Heytesbury begins his own treatise. The first kind of knowledge that Ockham describes is as follows:

> In one way knowledge is a certain apprehension of something true. And in this way some things are known through faith alone as when we say we know that Rome is a large city, even though we haven't seen it. Likewise I say I know that he is my father and she is my mother, and so on for other things that are not evidently apprehended. Nevertheless, because we adhere to them without any doubt and because they are true, we are said to know them.[25]

Ockham's position closely matches Heytesbury's. For one thing both pick cases of non-immediate empirical knowledge — here Ockham's examples are based on the testimony of others. Further, Ockham invokes something very close to Heytesbury's unhesitating belief. The last sentence of the passage suggests that for the sort of knowledge Ockham has in mind it is sufficient that (a) the belief be true and (b) we adhere to it without any doubt. This is much the same as the characterization that Heytesbury gives us.

But as close as this passage is to Heytesbury's position, there are important differences. Whereas Heytesbury purports to provide a general account of knowledge in the ordinary sense, Ockham is describing only one narrow sort of knowledge: knowledge based on the testimony of others. Ockham goes on in the *Expositio* to describe three other sorts of *scientia*. The last two concern demonstrative knowledge of necessary truths. But the second kind of knowledge Ockham lists, and which he calls "evident" knowledge, includes ordinary, direct, empirical knowledge — e.g., seeing that the wall is white. He *contrasts* knowledge of this kind with the first kind described, and there is no claim that this second sort of knowledge involves any sort of subjective certainty or unhesitating assent. So Heytesbury, even if he is drawing inspiration from Ockham, is putting Ockham's account to a radically wider use: Heytesbury's claim covers not just knowledge obtained through the testimony of others, but all kinds of knowledge of contingent truths. The question remains, therefore, why Heytesbury would have taken Ockham's rather narrow claim and employed it as a general account of *scientia communiter loquendo*.

The examples of Henry of Ghent, Robert Holcot and William Ockham show that Heytesbury's proposal is not entirely unprecedented. But nevertheless his proposal remains novel in the medieval period. Heytesbury follows Henry of Ghent in attempting a general characterization of knowledge in the ordinary sense. And he follows Holcot and Ockham in incorporating something at least close to the notion of subjective certainty. But in important respects Heytesbury is doing something different from any of those three. So we can return now to the problem with which this paper began, the difficulty of finding any promising way of understanding Heytesbury's proposal.

3. A Characterization Without Criteria

Heytesbury's proposal can be defended if we give up trying to understand it as a criterion. At this point more should be said about the distinction between giving a characterization of a phenomenon and formulating criteria for it. The latter, as already indicated, means the establishment of necessary and sufficient conditions for that phenomenon's obtaining. One can characterize a phenomenon, however, without giving necessary and sufficient conditions. Indeed obviously it's often more interesting to formulate characterizations that are neither necessary nor sufficient. It's easy to think of examples where this is so. We might, for instance, be discussing what makes a work of literature a classic. The vividness of the characters, the social and political relevance of the theme, the quality of the prose — all these factors might come to mind, but of course there might well be counterexamples to any given quality. None of these features seem necessary or sufficient. It would indeed be a rather dull project to try to formulate such conditions. Presumably a work must be influential (in some sense), over time, to be a classic. But is this sufficient? And how will we measure influence? One quickly grows tired of such pedantic distinctions.

Let us leave to one side the issue of whether it is equally uninteresting to give a criterion for knowledge. The crucial point is that it is a mistake to *assume* that the only interesting way to characterize knowledge is in terms of necessary and sufficient conditions. It's this mistake that leads us to react so unfavorably to Heytesbury's proposal. By making the *philosophical* mistake of assuming from the outset that all analyses of knowledge must involve the giving of criteria, one is led to the *historical* mistake of misreading Heytesbury. Once we put this misconception aside, we can see that he should be understood not as specifying necessary or sufficient conditions, but as picking out features that are characteristic of the sort of knowledge he is interested in.

So what could have led Heytesbury to propose unhesitating belief as a characteristic of knowledge in the broad sense? It is surely one of the most salient features of ordinary empirical knowledge that we hold the belief with absolutely no hesitation or doubt. In this light it is worth considering some remarks made by Wittgenstein in *On Certainty*. One of Wittgenstein's central claims in this work is that we use the word "know" differently in different contexts. In particular, he argues that we often use "I know" to mean "I am certain." Consider the following passages:

> 86. Suppose I replaced Moore's "I know" by "I am of the unshakeable conviction?"
>
> 116. Instead of "I know. . .", couldn't Moore have said: "It stands fast for me that. . ."? And further: "It stands fast for me and many others. . .."
>
> 272. I know = It is recognized by me as certain.
>
> 330. So here the sentence "I know. . ." expresses the readiness to believe certain things.[26]

Wittgenstein was loath to give necessary and sufficient conditions for knowledge. Instead, he was interested in the characteristic uses of knowledge claims.

> 230. We are asking ourselves: what do we do with a statement "I *know*. . ."? For it is not a question of mental processes or mental states. And *that* is how one must decide whether something is knowledge or not.

Wittgenstein is claiming that in some circumstances, but not in all, to know means nothing other than unhesitatingly to believe something.

Heytesbury's thesis is that this is the *core* usage of the verb "to know" and its cognates. Recall his precise words: "thus speaking generally, in the way that contingents of that sort and accidental sensible characteristics are known, to know is nothing other than unhesitatingly to apprehend the truth." Like Wittgenstein, Heytesbury isn't claiming that this is what "to know" means in every case. Some forms of *scientia* are the product of a syllogism, and knowledge of that kind won't necessarily involve either a feeling of certainty or a lack of hesitation. The results of a syllogism, as noted earlier, can be quite hard to believe. Demonstrative knowledge, as John Locke would later note, "though it be certain, yet the evidence of it is not altogether so clear and bright, nor the assent so ready, as in intuitive knowledge."[27] Heytesbury emphasizes that his proposal is meant primarily, if not exclusively, as a characterization of knowledge of contingent truths. The most salient feature of this sort of knowledge, Heytesbury claims, is that it is accompanied by unhesitating belief.

Heytesbury's examples illustrate this point. We don't just believe on good grounds that there are many men in Oxford —rather, we're absolutely certain of that fact, unshakeably so. We're likewise certain that Rome was a beautiful city, and certain whether someone is awake or asleep, even though our evidence in these cases is less direct. Heytesbury's account of such cases is informative even though it fails to be necessary or sufficient for knowledge. It would in fact be misleading, in an important respect, to describe such cases in what has become the traditional way: as true beliefs based on sufficient evidence. Knowledge is *more* than that, at least characteristically. Knowledge of the sort Heytesbury is interested in is not just a well-founded true belief, but is in the ordinary case something one is sure of. Describing this sort of knowledge as a true belief based on good evidence leaves out an important feature: that we come to these beliefs immediately and unhesitatingly.

Since this thesis is meant as a characterization of what such knowledge is typically like, the existence of *recherché* counterexamples carries no weight against it. Heytesbury can agree that in isolated cases knowledge in the ordinary sense will not be as he describes it. And he can accept Peter of Mantua's clever example showing that some things that meet the description are not knowledge. But such counterexamples don't make Heytesbury's characterization of knowledge *communiter loquendo* any less apt or meaningful.

4. What About Justification?

A question that remains, despite the foregoing discussion, is why Heytesbury says nothing about the need for justification. The obvious problem with Heytesbury's proposal has been that he doesn't require any kind of

evidence or warrant. The fact that Heytesbury is not proposing a criterion explains why he needn't be bothered by the ease with which apparent counterexamples can be formulated. But a piece of the puzzle remains nonetheless. For regardless of whether one takes Heytesbury's proposal as a criterion or a characterization, one would expect any account of knowledge to involve the notion of justification. How can we understand this apparent oversight? Before giving the explanation that in the end proves satisfactory, several alternatives should be examined.

4.1. Ignorance Is No Defense

One possibility is that Heytesbury just failed to see that true beliefs must in some way be warranted if they are to count as knowledge. Some remarks by T.K. Scott might lead one to think that this must have been the case. According to Scott,

> Ockham seems to have realized what very few other scholastics realized, that knowing involves more than merely judging correctly or believing what is true. It also requires that the belief be *justified*.[28]

It seems to me that it would be astonishing if Scott were right that "very few other scholastics" realized that knowing involves more than true belief. (Let's leave what he says about Ockham aside.) For it is just not a terribly deep insight to see that knowledge requires more than true belief. Surely anyone can see, for instance, that a true belief based on a lucky guess doesn't count as knowledge. And it's perfectly obvious that the reason it doesn't count as knowledge is that the believer doesn't have good evidence for that belief. It's hard for me to see how anyone who bothered to consider such issues could not realize this fact. Indeed, it's hard to see how one could engage in philosophy at all without recognizing that knowledge requires justification. Producing justification for one's beliefs is at the very heart of the philosophical project. That's what argumentation is all about. So it's unclear what it would even mean to say of a philosopher that he was unaware that knowledge requires justification.

It is true that the scholastics don't *say* that knowledge is justified true belief, or even consider the question. But this shows not that they were confused on such an obvious point, but that they weren't concerned with establishing criteria for knowledge at all. The questions never arose that would have led them to make explicit statements about these problems. The scholastics did fail to see how difficult and theoretically interesting it is to try to frame necessary and sufficient conditions for non-demonstrative knowledge. If they had seen this (if, for instance, they had read the *Theaetetus*), they undoubtedly would have rapidly noticed that true belief requires something like warrant, and would likely have gone on to form endless variations on the Gettier problem. Their failure to investigate these problems fully should not be taken to show that they were unaware of such obvious epistemological facts as that knowledge is more than true

belief, or that true belief requires warrant of some kind in order to be knowledge.

If this seems like mere speculation then recall that Heytesbury's commentators do explicitly link knowledge with having evidence. Peter of Mantua, as we've seen, argues that in the scenario established in his counterexample "you do not know that Socrates is running because *there is no evidence* through which you know that Socrates is running." Cajetan says much the same thing. But, *pace* Scott, this is no grand theoretical breakthrough of the late fourteenth century. Each is merely stating the obvious. It's only because Peter and Cajetan are becoming increasingly interested in necessary and sufficient conditions that they think to raise counterexamples which make it obvious that justification is an element in knowledge. Earlier scholastics would have said much the same thing if they had been interested in the same problems. In Heytesbury, then, one needn't take the absence of a justification requirement as the result of ignorance.

4.2. Justification and Faith

Another possible explanation for the absence of justification in Heytesbury's account is that he wanted to include faith as a kind of knowledge.[29] Heytesbury himself is silent on this point, but support for the theory comes from Peter of Mantua, who writes that from Heytesbury's criterion (with Peter's emendation) "it follows that all actual faith is knowledge, and everything faithfully believed is known."[30] It's not *prima facie* implausible to take this as a result of Heytesbury's thesis. Faith, according to the classic formula in Hebrews, is "the substance of things hoped for, the evidence of things not seen" (11,1).[31] On the standard medieval analysis of faith, based in part on this passage, knowledge is of things that are seen (in a very broad sense of 'seen') while faith is of things not seen.[32] The distinguishing feature of faith, then, is that it is firm belief without the kind of accompanying evidence that is typical of knowledge: without, for example, the evidence of the senses, or a demonstrative syllogism. (Both of these sorts of evidence would be included under 'things seen' in its broad sense.)

Heytesbury, by leaving out of his definition of knowledge any requirement for evidence or justification, appears to have opened the way for faith — as firm belief without evidence — to be counted as knowledge. But there is an invalid leap in the reasoning here, from taking faith to be of things not seen, to assuming that faith is unjustified or unsupported by evidence. For although faith (or, following the Hebrews passage, a belief based on faith) is of things that are not seen, that is not to say that faith is unjustified, or that there is no evidence for faith. Indeed, a careful reading of the passage from Hebrews reveals that faith precisely *is* the evidence for the beliefs it generates. Just as a true sensory belief could be said to be justified, or supported by evidence, precisely *because* it is based on the senses, so a true belief based on faith might be said to be justified or based on evidence precisely *because* it is based on faith. In order to count faith as

a kind of knowledge, one needn't drop the demand that beliefs be supported by evidence, or that they be justified. On the contrary, it would not have been clear to Heytesbury and his contemporaries that beliefs about things seen are necessarily any more justified than beliefs about things not seen.

It would hardly be in keeping with the medieval tradition of philosophical theology to hold otherwise. Consider Augustine, who is quite clear on the point that faith can and should be considered to be based on evidence.

> Authority demands faith, and prepares a person for reason. Reason leads to understanding and knowledge. Reason does not entirely desert authority, however, when we consider who is to be believed; and, of course, once the truth is known and made manifest, it has the supreme authority.[33]

Faith, according to Augustine, is believing on the basis of authority. On this analysis the beliefs that count as faith *are* supported by evidence: the evidence of authority. But not just any authoritative-looking tradition or book is accepted as true. There are good reasons — if Augustine and other Christians are right — for taking the Christian tradition to be authoritative and worth accepting. Thus it is that "reason does not entirely desert authority" (as above); the evidence of faith will itself be justified by a rational consideration of whether faith is warranted in such circumstances.

Heytesbury's proposal, therefore, is utterly inappropriate as an attempt to include faith as knowledge. The difficulty is that the account, if its purpose is to include faith, is too generously framed. Of course his standard would let faith in (assuming it meets the truth requirement). But it would also — as has already been emphasized — let in any kind of crazy but firmly held true belief. And no Christian — and especially no Christian *philosopher* — would want to assimilate faith to all the unsupported, irrational beliefs that people hold, and even firmly believe. Faith is of things not seen. But it is not without evidence of its own. And so the question still lingers, why Heytesbury left out justification.

4.3. The Gap Between Empirical and Demonstrative Knowledge

The best explanation for the absence of justification in Heytesbury's account is that he is struck by the difference between the kind of warrant required by demonstrative knowledge and by ordinary empirical knowledge. We can begin to understand this by reconsidering a point already made — that Heytesbury is breaking fairly new ground in considering knowledge in the ordinary sense. He was by no means the first scholastic philosopher to note that '*scientia*' could be taken in a broad sense corresponding more closely to our use of the term 'knowledge' — Henry of Ghent (as we've seen) had recognized the same thing, as had William Ockham.[34] But still Heytesbury was writing at a time at which the result of a demonstrative proof was taken as the paradigm for knowledge. Knowledge in this restricted sense naturally does have to be warranted: it has to be warranted by a valid syllogism. The important point to notice in this respect is that

Heytesbury did not choose to pattern his account of *scientia communiter loquendo* on the model of demonstrative knowledge. Ordinary empirical knowledge is not, according to Heytesbury, characterized by its following from some kind of evidence. But why not? Why this difference between demonstrative knowledge and ordinary knowledge?

One of the most salient differences between knowledge based on demonstration and everyday empirical knowledge is that one's evidence for the former — the syllogism — is easily specified and evaluated. One finds the premises, and then looks for soundness and validity. In the case of ordinary knowledge, in contrast, it's easy neither to specify nor to evaluate the grounds on which the knowledge is based. As G.E. Moore remarks,

> We are all, I think, in this strange position that we do *know* many things, with regard to which we *know* further that we must have had evidence for them, and yet we do not know *how* we know them, i.e., we don't know what the evidence was.[35]

Moore had in mind things like knowing that the earth had existed for many years before he was born. Heytesbury's example of knowing that Rome was a beautiful city is almost as good. How did he learn that Rome was once beautiful? *Maybe* he remembers reading an account by Virgil, but maybe not. Very often, we just don't remember the authority on which we believe something. Other kinds of knowledge are, notoriously, just as difficult to justify. How do I know there are many men in Oxford? Well, in Heytesbury's case, he has seen (or is seeing) this. But how does he know his senses are to be trusted? Obviously, quite a lot has to be said here to put these questions to rest. And quite a lot has been said since Heytesbury's time. But my suggestion is that Heytesbury saw, from a distance, the deep problems that confront any attempt to specify the evidence upon which our everyday beliefs arise, and so he chose to circumvent those problems by formulating an account of knowledge that makes no reference to warrant. We need not imagine that Heytesbury saw in detail the sorts of problems to which this line of inquiry leads. But perhaps he did see enough to make him think that this was shaky ground on which to build an account of knowledge in the ordinary sense.

Given that there was no precedent, in Heytesbury's time, for a theory of the justification of ordinary empirical knowledge, it's easy to imagine how daunting such a task would have been. And one can see how it would only have made matters worse that such an account had already been worked out in detail in the case of demonstrative reasoning. It was part of the basic philosophical framework, familiar to every undergraduate in the medieval universities, that *scientia* in the strict sense is based on prior and better known principles which can eventually be traced to first principles (e.g., the law of non-contradiction) which are themselves undemonstrable.[36] In the case of *scientia communiter loquendo* there was no corresponding account of the grounds of such knowledge. Philosophers and theologians of

the thirteenth and early fourteenth centuries had devoted considerable ingenuity to studying the workings of our cognitive faculties. But next to no attention had been paid to specifying and evaluating our warrant for accepting the output of these faculties.[37] What Heytesbury needed, but what had not yet been developed, was a theory of empirical justification that he might plug into his account of everyday knowledge. In this respect his all-too-brief remarks were positioned at the edge of philosophical development.

Reflection on these circumstances leads to one further point. One might have expected that Heytesbury's account of knowledge in the ordinary sense would closely follow the narrow Aristotelian analysis of *scientia*. It seems that it would have been natural, in other words, for Heytesbury to have given ordinary empirical knowledge the same structure as demonstrative knowledge, with conclusions based on premises which are themselves either based on still prior premises, or are the foundational first premises of all knowledge. What we might have expected, in short, is Heytesbury's embracing a foundationalist model of justification. Given the dominance in the scholastic period of the deductive paradigm of *scientia*, and given the absence of any alternative framework in which to place empirical knowledge, foundationalism seems like the obvious move to make. It would be too much, based on the brief remarks Heytesbury gives us, to speak of his resisting this sort of move, a move which would come to be so characteristic of the early modern period. But it's nevertheless interesting that Heytesbury's remarks point in an opposite direction. Instead of modelling empirical knowledge on demonstrative knowledge, Heytesbury separates the two entirely, omitting from the former any account of evidence, and replacing that with a respect in which empirical knowledge is at times unlike demonstrative knowledge — i.e., the unhesitating belief it engenders. By characterizing *scientia communiter loquendo* in this way, Heytesbury accentuates rather than conceals the differences between ordinary and demonstrative knowledge.[38]

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NOTES

1. From "De scire et dubitare" ("On knowing and doubting"), chapter two of Heytesbury's *Regulae Solvendi Sophismata* (Venice, 1494), f.13vb. See the following note for the Latin text.

2. "Unde communiter loquendo sicut sciuntur huiusmodi contingentia et sensibilia accidentalia, scire non est aliud quam sine hesitatione apprehendere veritatem, id est, credere sine hesitatione quod ita sit, et cum hoc quod ita sit ex parte rei. Sic enim scio quod roma fuit pulchra civitas, et quod multi sunt homines in oxonia, et quod iste vigilat et quod ille dormit, et sic de talibus" (*De scire et dubitare*,

loc. cit., f.13vb, incorporating the emendations made by Norman Kretzmann and Eleonore Stump in *The Cambridge Translations of Medieval Philosophical Texts. Volume One: Logic and the Philosophy of Language* (Cambridge: Cambridge University Press, 1988)). Kretzmann is preparing a critical edition of this chapter of Heytesbury's *Regulae*. My translation is taken, with some changes, from Kretzmann and Stump, *ibid.*, p. 447.

3. The belief that "Rome was a beautiful city" is presumably based on the testimony of others (presumably from ancient times), although it could conceivably be based on personal experience. Compare the example of there being many men in Oxford to John Locke, *An Essay Concerning Human Understanding*, ed. P. Niddich (Oxford: Clarendon Press, 1975), IV.xi.9.

4. This is why I deviate from the Kretzmann-Stump translation. Their translation forecloses the possibility that *scientia communiter loquendo* might cover only knowledge of contingent truths. They render the text as follows:

> Thus speaking broadly, in such a way that contingents of that sort and accidental sensible characteristics are [among the things that are] known. ...

Notice that their translation requires the addition of a phrase not given in the Latin text. This reading has some merit when Heytesbury's "*communiter loquendo*" is read as "speaking broadly." Then one would expect this form of *scientia* to include whatever falls into a narrower definition of *scientia*, but be widened to include contingent truths. But the phrase might just as well be translated as "speaking in the common way," and there is less reason to suppose that *scientia* conceived in this way would be broader than and include *scientia* understood more strictly.

5. "Belief, Justification, and Knowledge — Some Late-Medieval Epistemic Concerns," *Journal of the Rocky Mountain Medieval and Renaissance Association*, vol. 6 (1985), p. 93. To get a feel for Heytesbury's central interests in this treatise the reader should consult Boh's *Epistemic Logic in the Later Middle Ages* (London: Routledge, 1993).

6. "Ponatur quod Plato sit coram te quem scias currere et credas quod ipse sit Sortes sic quod credas firmiter Sortem currere. Sed currat Sortes rome te nesciente. Tunc tu scis Sortes currere et non scis Sortes currere." I'm translating from a 1477 printed edition of Peter of Mantua's *Logica*. The copy I was able to consult, in the British Library, is unpaginated. No modern edition or translation has been published. Paul Vincent Spade, *The Mediaeval Liar: A Catalogue of the Insolubilia-Literature* (Toronto: Pontifical Institute, 1975), reports that a copy of a 1492 Venice edition is in the Yale University Library, and also at the Pontifical Institute of Mediaeval Studies in Toronto.

7. ". . .non scis Sortem currere quia nulla est evidentia per quam scis Sortem currere" (*Logica*, loc. cit.).

8. "Et tamen tu non scis Socratem currere quia nullas habes evidentias propter quas sic scias. Habes enim evidentias de Platone currente coram te quae non faciunt ad hoc quod tu scias Socratem currere" My translation comes from the 1494 Venice edition of Cajetan of Thiene's *Expositio Tractatus Hentisberi de Scire et Dubitare*, f.16vb. This commentary, like Peter's *Logica*, has not been printed in modern times. But Ivan Boh has made his own translations of the relevant sections of both available through the Translation Clearing House at Oklahoma State University's Department of Philosophy.

Notice that here Cajetan uses the Latin plural of "evidence" ("*evidentias*") which makes it clear that he is thinking of evidence in a modern sense: as supporting pieces of information, rather than evidentness.

9. "Belief, Justification, and Knowledge," p. 96.

10. ". . .credis firmiter Sortes currere non deceptus in significatione alicuius istorum terminorum, 'Sortes' et 'currit,' et Sortes currit" (*Logica*). The "if and only if" formulation is not my addition. Peter specifies that the entailment runs both ways.

11. See Edmund Gettier, "Is Justified True Belief Knowledge?," *Analysis*, vol. 23 (1963), pp. 121-23.

12. On this subject generally see Umberto Eco, "Denotation," in Eco and Constantino Marmo (eds.) *On the Medieval Theory of Signs* (Amsterdam: John Benjamins, 1989).

13. "Videtur tamen mihi quod possumus in primo casu concedere quod scio Socratem currere. Nam licet nesciam Socratem currere per has propositiones 'Hoc currit' et 'Hoc est Socrates,' Platone demonstrato, quem credo esse Socratem, scio tamen Socratem currere per hanc propositionem 'Socrates currit,' quae est vera et firmiter credita praecise significans Socratem currere" (*Expositio*, ff.16vb-17ra).

14. Compare G. E. Moore:

> It seems to me quite evident that my knowledge that I am now perceiving a human hand is a deduction from a pair of propositions simpler still — propositions which I can only express in the form 'I am perceiving *this*' and '*This* is a human hand.'

"A Defense of Common Sense," in *Philosophical Papers* (London: George Allen and Unwin, 1959), p. 53 (originally published in 1925).

15. "Nec possum credere Socratem currere quin heabeam notitiam de Socrate et ipsum cognoscam" *Expositio*, f.17ra.

16. "Multotiens enim falsa faciunt notitiam verorum, etc." (*ibid.*, f.17ra).

17. "Dicendum quod scire large accepto ad omnem notitiam certam qua cognoscitur res sicut est absque omni fallacia et deceptione" Paris, 1520 (rpt. St. Bonaventure: Franciscan Institute Publications, 1953), a.1 q.1, f.1vB.

18. See, for instance, Thomas Aquinas, *Sententia super Posteriora analytica* [*InPA*] (Rome: Marietti, 1955), I.4.5, and the discussion by Scott MacDonald, "Theory of Knowledge," in Kretzmann and Stump (eds.), *The Cambridge Companion to Aquinas* (Cambridge: Cambridge University Press, 1993).

19. See, e.g., Aquinas III *Sent.* 14.1.3.5c, 23.2.2.3c; *InPA* I.4.5. Compare also Peter John Olivi: "I mean by the name '*scientia*' every certain and infallible disposition for intellective cognition" *Quaestiones in secundum librum Sententiarum* (Rome: Quaracchi, 1922-26) q.58 ad 14 (II,468); "Every act of knowing is certain and. . . to know is the same as to be certain" (*ibid.* q.79; III,164).

20. "Sed iste terminus 'scientia' est unus terminus supponens pro aliquibus signis ordinatis ad significandum verum vel falsum, *et simul cum hoc connotat sive importat quod certum sit intellectui quod sic est in re, sicut per eam denotatur.* Iste vero terminus 'dubitatio' supponit aliquando pro eadem propositione, et simul importat vel connotat quod intellectus non fuit certus utrum sic esset in re, sicut per illam denotatur, vel non." My translation from Quodlibet I.6 ("Whether God Can Know More than He Knows?"), William J. Courtenay (ed.), *Archiv für Geschichte der Philosophie*, vol. 53 (1971), pp. 19-20.

21. Ernest Moody, "A Quodlibetal Question of Robert Holcot, O.P., on the Problem of the Objects of Knowledge and Belief," *Speculum*, vol. 39 (1964), pp. 53-74.

22. See Curtis A. Wilson's article on Heytesbury in the *Dictionary of Scientific Biography* (New York: Scribner's, 1972).

23. On this controversy, see Gabriel Nuchelmans, *Theories of the Proposition* (Amsterdam: North-Holland, 1973), ch.12, esp. p.197. Also see Moody, *op. cit.* and ch.26 of Marilyn McCord Adams's *William Ockham* (Notre Dame: University of Notre Dame Press, 1987).

24. *In quatuor libros Sententiarum quaestiones* (Lugduni, 1518; rpt. Frankfurt: Minerva, 1967) Bk.II, q.ii BB.

25. "Una est, quod scientia uno modo est certa notitia alicuius veri. Et sic sciuntur aliqua per fidem tantum. Sicut dicimus, nos scire quod Roma est magna civitas, quam tamen non vidimus; et similiter dico, quod scio istum esse patrem meum et istam esse matrem meam, et sic de aliis quae non sunt evidenter nota; quia tamen eis sine omni dubitatione adhaeremus et sunt vera, dicimur scire illa." *Expositio Physicorum* in *Opera Philosophica* [*OPh*] (St. Bonaventure: Franciscan Institute Publications, 1967-1989), prol. sec.2 (vol.IV, 5). Translated by P. Boehner in Ockham's *Philosophical Writings* (rev. ed., Indianapolis: Hackett, 1989), pp. 4-5.

26. Wittgenstein, *On Certainty*, G. E. M. Anscombe and G. H. von Wright (eds.), Denis Paul and G. E. M. Anscombe (trs.), (Oxford: Basil Blackwell, 1969).

27. *An Essay Concerning Human Understanding* IV.ii.4.

28. "Nicholas of Autrecourt, Buridan and Ockhamism," *Journal of the History of Philosophy*, vol. 9 (1971), p. 19.

29. Paul Vincent Spade, in conversation, suggested this to me.

30. "Ex qua suppositione sequitur quod omnis fides actualis est scientia et quodlibet fideliter creditum est scitum" (*Logica*). Also, recall that Ockham said of his related characterization of knowledge that "in this way some things are known through faith alone" (see n. 25). But in saying this Ockham does not seem to have had religious faith in mind, at least not primarily.

31. This is the King James translation. The Vulgate text reads: "Est autem fides sperandarum substantia rerum, argumentum non apparentium."

32. See, e.g., Peter Abailard, *Sic et Non*, q.2: "That faith is of non-apparent things only, and to the contrary;" q.4: "That faith alone, and not knowledge [*agnitio*], is of non-apparent things, and to the contrary;" Thomas Aquinas, *Summa Theologiae* 2a2ae q.1 a.4: "Whether the object of faith can be something seen."

33. *De vera religione*, xxiv 45;215.4-8, as quoted in Norman Kretzmann, "Faith Seeks, Understanding Finds: Augustine's Charter for Christian Philosophy" in Thomas P. Flint (ed.) *Christian Philosophy* (Notre Dame: University of Notre Dame Press, 1990), p. 6.

34. Ockham refers a number of times to *scientia* in a broad sense. In addition to the passage discussed at n. 25 above, see *Summa Logicae*, p.III-2 ch.1 (*OPh* I, 506); *Ordinatio* d.35 q.1 (*Opera Theologica* [*OTh*] IV, 427); *Reportatio* bk.III q.7 (*OTh* VI, 195).

35. "A Defense of Common Sense," p. 44.

36. The classic source for this doctrine is Aristotle, *Posterior Analytics* i.2 (71b20ff).

37. It's in this sense that the scholastics don't develop a theory of justification. But T. K. Scott misdescribes the situation when he writes that

> Of these [three standard criteria for knowledge], the first two, belief and truth, received a good deal of attention in scholastic theories of knowledge, while the third, justification, was really very little explored ("Nicholas of Autrecourt, Buridan and Ockhamism," p. 20).

It is true that little was said about justification in the context of a condition for knowledge. But the same could be said of belief and truth. I know of no discussions, for instance, concerning whether truth is required for knowledge. That was just assumed. And just as there was a great deal said about truth and beliefs in general, so too there was a great deal said about justification in general. It's easy, for instance, to find scholastic discussions concerning what kinds of syllogisms are valid, or under what conditions sensory impressions constitute good evidence.

38. I'd like to thank Norman Kretzmann, Steve Maitzen, and a reviewer from *HPQ* for their helpful comments on this paper.