Is Knowledge a Non-Composite Mental State?

[THIS IS A LATE-STAGE DRAFT]

PATRICK RYSIEW

1. Introduction

In "The Need to Know," Fred Dretske writes:

> Getting things right is not just a useful skill. It is a biological imperative. Behavior has to be coordinated with the external conditions on which its success depends. An animal doesn't want to be running all the time; only when there is something chasing it. Courtship and mating activities are nice, but only with a partner…." (Dretske 1989: 89)

For social creatures such as ourselves, the need to reliably track certain states of our fellows is no less real or pressing than the need to track certain features of the physical landscape: 'if needing to know' about "the external conditions" is 'a biological imperative',[1] so is needing to know such things as what others believe, and whether they possess knowledge. Coordinating with them requires it, as does being in a position to effectively exploit them as useful sources of information.

According to epistemological orthodoxy, there is a certain priority amongst the states of others we need to track: knowing, the orthodox thinking goes, involves having a belief that meets certain further conditions – most centrally, the belief must be true (as the factivity of 'know(s)' suggests); and the belief must be justified, warranted, or what have you.[2] So knowledge is a composite state. It is, moreover, not merely composite but *hybrid* (Williamson 2000) – i.e., it is a composite state that incorporates both clearly mental factors (belief, of course; and, plausibly, at least some factors relevant to whether it is warranted) and clearly non-mental ones (truth, of course; and, on certain views, at least some factors relevant to whether it is warranted). Adam Leite sums up the common thinking nicely:

> "As the traditional conception of knowledge has it… one's knowing a particular proposition about the world is often a complex state or condition comprising both purely mental factors (such as belief) and non-mental, environmental factors. The term "mental state" can, of course, function as a term of art and may reasonably be extended in certain ways for theoretical purposes. But we have a pretheoretical conception of the mental which prompts ready agreement with the traditional view. The claim that knowledge is nothing but a mental state comes as a surprising philosophical thesis." (2005, 166)

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[1] Granted, in the quoted passage, it's 'getting thing right', which may or may not require knowing, that Dretske mentions. As his discussion (not to mention the paper's title) reveals, however, it is knowledge he's referring to.

[2] There has been much discussion about which among the latter such factors and terms is the most apt and/or promising. (See note 4 below.) Fortunately, such disputes don't have any direct bearing upon the present discussion.

In "Knowledge as a Mental State", Jennifer Nagel looks to turn this traditional thinking on its head: not only is our "pretheoretical conception of the mental" actually such that we naturally treat knowledge as a mental state alongside belief, desire, and so on, but prominent arguments against regarding knowledge as a mental state can be reasonably challenged; further, there is empirical evidence which strongly suggests that the concept of knowledge is prior to that of belief, and not the other way around. More broadly, and as befits the (as she sees it) thoroughly mental status of knowledge, Nagel seeks to portray our ordinary knowledge-ascriptions as the product of our general mind-reading capacity, and our ability to track others' epistemic states as a reliable and computationally feasible solution to the specifically psychological 'need to know' described above.

Nagel's paper gives us much to admire, and to talk about. It's a model of how to usefully integrate empirical considerations and findings with philosophical arguments and theories in a way that's likely to benefit researchers in both disciplines. The result is a compelling case, if not for abandoning epistemological orthodoxy, then at least for thinking hard about it in a way we seldom do. In the end, however, it's not clear whether Nagel's discussion, and in particular the psychological work she discusses, really is a threat to epistemological orthodoxy. This is not because of any suspicions about that work itself, but rather because (Section 3) it is not clear whether it really is at odds with the epistemological orthodoxy Nagel seeks to dislodge. Before turning to that, however, we should consider just what's at issue in debates around whether knowledge is a mental state, and wherein exactly the idea that it is conflicts with the orthodox view.

2. Knowledge as a Mental State?

While the ostensible topic of Nagel's paper is whether knowledge is a mental state, it's important to note that it's not around precisely that issue that most of the discussion and argument revolves. Rather, the central issue is whether knowledge is – as, according to the orthodox view, it's naturally and best conceived of as being – *composite*, in the above-indicated sense. Whether knowledge is composite, and whether it's mental, are issues that, in fact, we might do well to keep distinct.[3]

But isn't the thought that knowledge is composite part-and-parcel of the view that it isn't a mental state? Certainly, people's views on the two issues tend to align, but it's not clear whether that's because of any essential connection between them. Once again, on the orthodox view, being in the state of knowledge is a composite state, comprised of having a belief that is true, justified, and so forth. On anyone's view – at least, on the view of anyone party to the present debate -- it's uncontroversial that belief is a mental state, and that truth is not. So knowledge is, again, a hybrid state. But isn't that enough to give us the result that it's non-mental? It might seem so. As Nagel observes:

> "States and events that are composites of the mental and non-mental are not naturally classified as mental: homicide, for example, is not a mental event.

[3]I should stress that I don't mean to be implying any kind of confusion on *Nagel's* part here.

> Although every homicide incorporates the mental condition of an intention to kill (indeed this mental condition, *mens rea*, is the part of the essence of homicide that distinguishes it from involuntary manslaughter), an event cannot be a homicide without also incorporating the non-mental condition of someone's actual death. The inclusion of this non-mental conjunct disqualifies the event considered as a whole from counting as purely mental." (p. 10*)

However, while the addition or involvement of an external factor sometimes renders a hybrid state non-mental, it seems that it doesn't always obviously do so.

For instance, the fact that externalist semantic theses, as applied to belief, are a going theory shows that the mere involvement of 'external' factors doesn't always make a state non-mental in the obvious way in which homicide is. On a familiar 'two-factor' view of belief, for example, "we can think of belief as built up from a narrow factor, which supervenes on what is in the head, together with a broad factor, which fails to supervene on what is in the head" (Magnus & Cohen 2003, p. 39). This type of view may or may not be correct, and it's open to question which of the two 'factors' (broad or narrow) does the work in psychological explanations and/or in virtue of what exactly propositional attitudes are "causally efficacious" (*ibid.*, p. 40). The point, however, is that it's *not* usually said, in connection with such views, that the involvement of 'a broad factor' in our understanding of the relevant state has the immediate, not to mention surprising, consequence that beliefs are *not* mental after all.

In the same vein, there *are* a variety of states naturally classed as mental, at least for everyday purposes, that are clearly world-involving. These are factive states like remembering, regretting, resenting, and so on (cf. Williamson 2000, p. 22). Perhaps these states are not mental in some strict sense; perhaps they are mental only in the same way that many orthodox theorists hold the composite state of knowledge to be -- maybe they too are hybrid and at most only 'impurely' mental. Once again, though, the salient point is that they are not *obviously* non-mental in the way that homicide is. So while it's not being suggested here that these states are all best viewed as mental, there's an important sense in which they could be. For just this reason, it's open to a proponent of the view that knowledge is a composite of belief, truth, and various other things, to hold that that composite is, in the best theory, properly regarded as a mental state. Putting the point the other way around: from just the fact that a theorist (philosopher or not) lists knowledge as among the mental states, we can't infer their position as to the compositeness (or not) of that state.

All of this, I take it, is harmless and uncontroversial enough. But, just as obviously, it doesn't yet engage with the views of those who – like Williamson and Nagel – seek to oppose the orthodox view. For their point isn't merely that knowledge is best classed as a mental state. Rather, they aim to establish the stronger thesis that knowledge is *purely* mental – i.e., that it is not metaphysically hybrid. As Williamson puts it,

> "the claim that knowing is a state of mind is to be understood as the claim that there is a mental state being in which is necessary *and sufficient* for knowing *p*. In short, knowing is *merely* a state of mind." (2000, p. 21)

And of course it's clear from her discussion that, for Nagel too, the core issue is whether knowledge is "a mental state *in its own* right, *and not…a composite of belief and non-mental factors*" (p. 4*; emphasis added). So it's not the mentality (or not) of knowledge *per se* that's at issue, but rather whether it's hybrid -- and perhaps, therefore, at best impurely mental -- or non-composite and mental through-and-through.

Of course, there are familiar objections to thinking of knowledge as a mental state. Nagel discusses two of the more prominent lines of argument – first, that knowledge-based explanations of action are unnecessary and uneconomical; and second, that genuinely mental states are *local*, and not the function of such 'external' factors as whether the state matches reality (p. 3*). Nagel's conclusion, on both of these counts, is that the argument is inclusive at best, and that on some of these matters – e.g., on the question of what is and isn't essential to our understanding of intentional action -- things in fact probably tip in favor of the non-orthodox view. A good part of the case for the latter assessment rests, again, upon a consideration of empirical findings that seem to point towards the relative priority of knowledge over belief, and the relatively *un*economical character of belief-based explanation. Before turning to those findings, however, it's worth reflecting very briefly on the two above-mentioned argument themselves, if only because doing so serves to show, once again, just what is/isn't at the heart of the dispute between Nagel and the orthodox view.

While it may be true that many proponents of the orthodox view would hold that "attributions of knowledge play no special role in our understanding of intentional acting" (p. 12*), it's important to stress that this – like the claim that knowledge, because it is composite, is therefore not mental -- is an optional add-on to the orthodox view, and not something entailed by it. Thus, there may be certain types of behavior – and, of course, certain patterns of robustly successful behavior -- that are best explained by citing the fact that the agent knows. However, as Elizabeth Fricker says, "There is absolutely no tension between knowing's being a good explanatory state, and each instance of knowing being a conjunctive, hybrid phenomenon" (2009, p…..). In other words, that knowledge has distinctive value in explaining certain types of action doesn't show that it's a pure mental state (p. 14*). In order to establish the latter, it would have to be shown that knowledge (as the orthodox theorist conceives of it) is of inferior explanatory value to knowledge (thought of as a pure mental state). But whether and how this might be shown is far from clear.[4]

In permitting that in certain cases knowledge has special and distinctive value as *explanans*, of course, the orthodox theorist would sacrifice a certain form of economy: not all intentional behaviors would be best explained in terms simply of belief, or of belief divorced from any features essentially tied to matters epistemic. Even so, because

[4] Part of the difficulty, of course, is as Nagel notes that there's no agreed-upon method for a complete spelling out of the conditions that must be added to true belief in order to yield knowledge. In fact, it's not clear even that such a thing is to be had – that knowledge admits of any neat analysis. At certain points, Williamson seems to regard this as indirect evidence against the orthodox view. But it's not clear why that should be: there are plenty of reasons why, while composite, knowledge might not be fully analyzable in terms of necessary and sufficient conditions. (See Leite 2005, Section 1; Dougherty & Rysiew, forthcoming.)

knowledge on the orthodox view has belief as an essential component, the fact that knowledge has sometimes-special explanatory power is compatible with a more fundamental, underlying theoretical parsimony. For, in explaining action sometimes by belief, sometimes by knowledge (and sometimes plausibly by something in between), the orthodox theorist is not alternately appealing to two different, *sui generis* types of states -- two types of states-'in-their-own-right'. Rather, in all such cases beliefs are an essential part of what accounts for what we want to explain. What different situations call for is, in effect, the invocation of *different forms* or *features* of beliefs as explanatorily salient. Potentially, various cases will call for explanation in terms of (bare) belief, or belief that's justified, or (merely) true, or justified but false, or false and unsupported, or satisfying all the conditions on knowing. Of course, if one is arguing that belief *simpliciter* is always the best or only explainer of action – that belief is "the pivotal mental state" (p. 11*) – invoking some of these *explanans* will, as Nagel points out (p. 15*), be problematic. But, again, there's no reason why a proponent of the orthodox must take that line.[5]

Similar thoughts apply to the issue of the supposed 'locality' of genuinely mental states: one can entertain suspicions about whether this is really so regardless of where one stands on the issue of whether knowledge is composite. As Nagel says, "[t]here is something jarring about the reflective observation that a subject can switch from one mental state to another (e.g., from knowing to not knowing[6]) through something that happens remotely" (p. 21*). But perhaps that's because we are (most of us, anyway) steeped in a long tradition of internalistic theorizing – and not just the mental, but about specifically epistemic matters too. Further, it may be that there's some good psychological explanation to be had, both of our tending to see mentality (including states of knowledge) as localized within agents, and of why the products of this tendency should not be given too much weight:

> "It is possible that we do in some sense intuitively represent the mental state of knowledge as localized within an agent, even if we actually intuitively compute the presence of knowledge on the basis of our grasp of relations between that agent and her environment, and even if we are able to recognize on reflection that this state must reflect how things are in the agent's environment. In intuitive judgment, we are aware of the final product or outcome of a process of computation, and not of the processing that gives rise to it (Sloman, 1996); while reflective and deliberate attributions of knowledge may make us conscious of the role played by distal factors in knowledge attributions, it is entirely possible for intuitive attributions of knowledge to incorporate distal factors without alerting us

[5] Nagel argues that everyday attributions of knowledge-*wh*, of which they are plenty, pose an additional problem for the orthodox view, since they appear to provide counter-examples to the idea that "knowledge attributions always require the composite representation of a known proposition as true and believed" (p. 18*). (A judgment such as, *Jane knows where to go*, often occurs in ignorance of the answer to the implied question.) The latter idea may indeed be problematic. As I argue below, however, the orthodox theorist need not commit to such a claim.

[6] Remember: it was suggested above that the orthodox theorist *can* consistently hold that knowledge is a mental state.

> to this fact. If the epistemic state underpinning action is something that subjectively seems local, our intuitive representation of knowledge may well provide this subjective impression: we could at some level feel that an agent's knowledge is localized within her, just as we feel that an object's motion is sustained by something within it." (p. 20*; cf. pp. 3-4*)

Of course, in explaining something away there's always the risk that something one wants in fact to preserve will be carried along and explained away as well. In the present case, insofar as we naturally tend to regard mental phenomena as "internal" and "covert" (Miscione *et al.* 1978, p. 1108), it *could* be that, to the extent that we naturally regard knowledge as an uncontroversially mental state, that is precisely *because* of our natural (but perhaps ultimately mistaken) tendency to 'localize' such states as knowledge. Perhaps if we had no such tendency, it would be even clearer (if it is) that knowledge isn't a mental state, or certainly not a purely mental state. – Perhaps. But that's just a possibility. And no doubt, the distinction between intuitive judgments and reflective and deliberate ones *is* real and important. Further, the evidence on behalf of regarding knowledge as a non-composite state goes beyond whatever intuitiveness it enjoys: there is empirical evidence as to "the nature and relative complexity of our intuitive attributions of knowledge, and on the question of whether the concept of knowledge is in some sense prior to that concept of belief, or whether it is composed from that concept and further conditions" (p. 21*). It's to a consideration of that evidence that we now turn.

3. Knowledge as a Non-Composite State?

If the orthodox view is correct and knowledge is a composite state, then, whether or not that composite is best classed as mental, it can seem as though the concept of belief *can't* be more complex and difficult for one to get a handle on than that of knowledge. After all, getting a handle on knowledge requires getting a handle on belief *plus* some other things (truth, and so on). So too, it looks like acquisition of the concept of belief would have to precede any ability to reliably think about and track others' knowing states. As Nagel forcefully argues, however, evidence concerning such things as the acquisition of mental[7] state verbs and nonlinguistic mental state ascription tasks suggests that the reality is exactly the reverse of what the orthodox view thus predicts. For 'know(s)' is among our most common mental verbs, well ahead of 'believe' or 'think', and it's acquired relatively early on. And children appear to be able to successfully distinguish between knowledge and ignorance (non-knowledge) well before they're able to perform respectably in attributing false belief. As Nagel says:

> "If we generally made judgments about the presence or absence of knowledge by attributing belief and then evaluating the truth or falsity of this belief, we would

[7] In using this label, I'm just following Nagel and the standard way of referring to such items in the relevant literature. For the remainder of this discussion, I set aside the question of whether the relevant states, including knowledge, are all (properly, purely, etc.) mental; I want instead to focus on the question of the relation between knowledge and belief, and between the corresponding concepts.

> not expect to see such a lag between the capacity to recognize the absence of knowledge and the capacity to attribute false belief" (pp. 25-26*; cf. p.11*)

Whereas, of course, the apparent lag is exactly what we might expect if we're taking knowledge to be a mental state in its own right, rather than a composite of belief plus other factors. After all, we have independent reason to think that certain features of the concept of knowledge – not least, its factivity and/or its essentially involving matching how things are (pp. 29-30*) -- are going to make it more tractable than that of belief – which, after all, permits all sorts of such failures of fit.

So, what's an orthodox theorist to say? It won't do, I think, for the orthodox theorist (or anyone else) to attempt to question whether children who pass the knowledge-ignorance task really are engaging in genuine *metal state* recognition: even if (as seems unlikely) we could explain what they're doing without crediting them with any real grasp of "*knowledge* as such", or indeed of anything specifically mental, that might only be setting ourselves up, on pain of inconsistency, for having to explain away *our* mind-reading skills, *our* ability to track others' mental states, in similar terms (pp. 26-29*). So too, there is reason to not restrict the mental states being tracked to something *short* of knowledge – to not insist that 'the knowledge-ignorance task' is a misnomer, that children aren't tracking knowledge but merely true belief (see p. 7*, n. 3). Of course, they may yet lack anything like a complete or full understanding of knowledge. There is an evident lag, for example, between success on the knowledge-ignorance task and the ability to distinguish between knowledge and mere true belief (p. 7*; see Miscione *et al.* 1979). (Another finding that's entirely unsurprising given a non-composite view of knowledge.) Yet, as Nagel says, "the prototypical cases of knowing that the child recognizes (in particular, seeing that something is the case), are the same as those we recognize as adults"; and it would be bad general policy to think that successful reference to some state, kind, or thing, requires a full understanding of its underlying nature (p. 7*, n. 3).[8]

All of this is good sense. It is also, in my view, very much of a piece with a more promising line of response on behalf of the orthodox theorist to the empirical data Nagel cites. As Nagel presents it, what those data show is that the concepts of belief and knowledge have a priority that's the reverse of what the orthodox view predicts. But that is not clear; for the type of priority the orthodox view asserts between the concepts of belief and knowledge is not the same as that to which the empirical data speaks. The orthodox theorist claims that belief is a constituent of knowledge, and therefore that belief is prior to knowledge 'in the order of analysis' – or, better perhaps (see n. 4, above), in the order of theoretical understanding – such that one needs a good grasp of belief in order to have a full or proper theoretical understanding of knowledge.

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[8] "Although the adult has a deeper understanding of knowledge, insofar as the child's early use of 'know' is typically a response to what we also recognize as knowledge, she should charitably be seen as referring to knowledge, just as the ancient Romans are appropriately seen as having referred to gold with their word '*aurum*', notwithstanding their failure to recognize it as the element with atomic number 79, and notwithstanding their relatively limited accuracy in sorting gold from its look-alikes" (p. 7*, n. 3).

Of course, orthodox mainstays like the 'JTB' conception of knowledge are often said to be 'intuitive'. But, charitably understood, what this means is that the orthodox view is a way of thinking about the relevant states, and of the relations between them, that those who've got mastery of the corresponding concepts[9] are able – using reflection on examples, some gentle argumentation, and other familiar devices -- to arrive at without a great deal of difficulty. On its own, however, the orthodox view is silent as to the relative ease or order in which those concepts are acquired. So too, the orthodox view as such is silent on[10] the psychology of knowledge attributions – such questions as whether "the intuitive recognition of knowledge [starts] with the recognition of belief" (p. 11*), proceeds to determining whether the belief is true, and then, if so, whether further conditions on knowing are plausibly met. As Nagel says in responding to the claim that all mentality must be 'local': we must be careful to distinguish intuitive from reflective and deliberate judgment; in the former, we're not aware of the processing that gives rise to it, and facts about the former can't be read off of either the judgments themselves or features of their production in the latter type of case.

This seems right, so far as it goes. But of course it leaves unaddressed the really hard question: how is it possible, if knowledge requires belief, for children to be reasonably reliable trackers of knowledge before they have any comparable handle on the concept of belief? Merely distinguishing between reflective and intuitive judgment, and so on, doesn't help with that. True enough. But the very features, noted above, that lead us to expect knowledge to be a simpler and easier concept to grasp than belief also suggest an answer to the question of how one might grasp and track knowledge without being able to grasp and track one of its essential components. In particular, an understanding of the factivity of knowing, together with modest information about the relation of the subject to a given state of affairs – the sort of information about the relation to the environment that Nagel suggests might be unconsciously and automatically incorporated into the production of our intuitive knowledge ascriptions -- would enable a kind of handy shortcut to determining whether they know. As Hogrefe *et al*. put it:

> "Ignorance should be understood earlier [than false belief] because children have to judge only whether the other had or did not have epistemic access to the target proposition." (1986, p. 579)[11]

This point, note, holds *whether or not* one takes belief to be a component of knowledge: *either way*, given the factivity of knowledge, ignorance is going to be easier to get an intuitive handle on than false belief. More to the point: an intuitive linking of seeing with knowing and not seeing with not knowing – what Ted Ruffman dubs 'a "seeing = knowing" rule' (1996, 390) – has the result that belief drops out as irrelevant, for purposes of assessing knowledge. Yet, when coupled with "mechanisms that automatically track the target's direction of gaze and note which objects lie in his visual field" (pp. 3-4; see Samson *et al*. 2010), it yields a means of assessing knowledge that

[9] Here, I mean practical mastery of the sort that enables one to apply the concepts in a manner that's on the whole robustly reliable.
[10] Which is not to say that orthodox theorists are uniformly good about observing this, or the previous, point.
[11] Broadly similar remarks are made by Abbeduto & Rosenberg 1985, p. 621, and Miller *et al.* 2003, p. 350.

delivers exactly the right result in the knowledge-ignorance task.[12]

It is an open question, of course, whether the account just quickly sketched is correct. But it provides an illustration of the *sort* of thing a proponent of the orthodox view can say by way of making sense of the data Nagel describes. Of course, it's part of the story that the children in question have only an imperfect grasp of knowledge (it's false that seeing = knowing); and, whether it's thought of as being achieved via 'representational reinterpretation' (Karmiloff-Smith 1995) and/or 'System-2' processing (Apperly 2011, Applerly & Butterfill 2009; Sloman 1996), there is plenty of room for improvement in their understanding of it through reflective thinking about the subject matter – not to mention, through further experience with the relevant phenomena. But that's agreed upon by all (cf. n. 12 below); and we have no antecedent reason to think that the acquisition of the concept of knowledge, or of any concept for that matter, is going to be an all-or-nothing matter (Apperly & Butterfill, "Conclusion"; Miscione *et* al., p. 1107).

Recall the idea with which we began: we have a prior and pressing need to be able to reliably track others' states, including what they know. In this respect, knowledge resembles health, another state of our fellows that's of long-standing and immediate practical concern to us. Now, whatever health is, it's almost certainly going to be a complex state; so, anyone with a complete theoretical understanding of it will need to have the conceptual sophistication required to understand all the various things it involves. But of course this doesn't mean that a registering of the presence of all of those various components will be reflected in ordinary ascriptions of health, or that they must be if those ascriptions are to be reliable. Much more likely that we'll employ such tricks as taking an individual's complexion or posture, say, as readily available signs of their general state of health. – An imperfect strategy, of course; but one that's eminently affordable, computationally speaking, and perhaps on the whole pretty reliable.[13] It's in an analogous manner, I'm suggesting, that we intuitively track others' knowledge; and in so doing we may elide any specific consideration of belief and so avoid the comparative difficulties that that concept involves.

One final thought. As noted early on, part of Nagel's concern in her paper is to make it plausible that ascriptions of knowledge are the product of an already-acknowledged

[12] Employment of this rule, of course, doesn't explain why, after they are capable of recognizing false belief, children pass through a phase in which they tend to ignore the question of whether the subject has an evidential connection to the proposition in question, ascribing knowledge so long as the subject performs some task successfully (p. 7*). There is no reason, though, to think that children don't employ a variety of 'rules' or 'heuristics', successively or in concert, in their epistemic evaluations. Thus, for instance, Perner (1991) has claimed that younger children take knowing to essentially amount to 'getting it right' (see too Miscione *et al*. 1978), which of course squares with the fact just noted. Further and relatedly, it's compatible with the Hogrefe-Ruffman idea suggested above that children's initial notion of 'epistemic access' might need serious refinement. Whatever its correct explanation, however, the result noted above doesn't pose any special problem for the present line of thinking: anyone who thinks that children's getting the knowledge-ignorance task right is evidence of their ability to track knowledge, and of their having a grasp of the relevant concept, is going to have to further explaining to do here.

[13] I don't know what indicators of health we do actually intuitively rely upon, but I assume that there are some such, and that they're not horribly unreliable – or, at least, not obviously less reliable than our intuitive knowledge-tracking strategies.

intuitive mind-reading system. To a large extent, however, that idea too can be preserved from within the orthodox view. On Nagel's view, recall, the counter-intuitiveness of this idea can be mitigated by noting that it is possible -- perhaps even plausible, given the example of intuitive physics -- that our intuitive attributions of knowledge incorporate our grasp of relations between that agent and her environment, and perhaps other distal factors, without alerting us to this fact. But this can occur *even if* the relevant 'purely mental' base is restricted to belief. So the orthodox theorist can agree that "[t]he fact that the state of knowing incorporates a relationship with the environment does not disqualify it from counting as a state which is fundamental to our intuitive understanding of other intelligent beings " (p. 4*). Granted, if the purely mental base of knowledge is restricted to belief, the obtaining of the requisite relationship with the environment will be regarded as at most an extra-credal component of knowledge; and we can perhaps disagree about whether or in what sense that composite state is best regarded as mental. It is not obvious, however, that anything of substance in one's account of how we come by knowledge of what others know turns upon the outcome of that question.

4. Conclusion

I have suggested that the orthodox view of knowledge as a composite state is compatible, not only with regarding knowledge as a mental state, but also with the empirical findings Nagel discusses, and therefore that those findings don't in fact support the view that knowledge is a non-composite state, a mental state in its own right. The latter claims, in particular, might seem like points of serious disagreement with Nagel. It should be emphasized, however, that in many ways the present discussion has been complementary to Nagel's: that knowledge might properly be regarded as a mental state; that philosophical arguments to the contrary are open to question; that we are in need of careful empirical investigation into the form and mechanisms of our intuitive ascriptions of knowledge (something that the orthodox view itself doesn't give us); and that those intuitive ascriptions might be importantly based in our natural mind-reading abilities. These are all points on which, as far as the present discussion goes, Nagel and the orthodox theorist can happily agree.[14]

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