# What Does Knowledge Explain? Commentary on Jennifer Nagel, 'Knowledge as a Mental State'

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### Abstract

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### 1. Introduction

In defending the claim that knowledge is a mental state, Nagel argues that knowledge features in commonsense explanations of thought and action. This in turn leads her, right at the core of her paper, to argue that 'the concept of knowledge is in some sense prior to the concept of belief' (p. 21). I shall concentrate on the core argument and set aside issues about how it bears on the status of knowledge as a mental state. In what sense, if any, is the concept of knowledge prior to the concept of belief?

In part Nagel is concerned with temporal priority in development. As she notes, earlier research shows that children can reliably answer questions about knowledge and ignorance months or years before they can answer questions involving false belief (Hogrefe, Wimmer & Perner 1986). So a three-year-old might be able reliably to report whether someone knows something and, relatedly, which of two or more people know it while systematically failing to correctly answer questions about what someone with a false belief will think,

See also p. 14 where Nagel considers the view that 'the capacity to recognize belief depends on some prior mastery of the concept of knowledge'

<sup>&</sup>lt;sup>2</sup> Nagel appears to infer from the premise that knowledge features in commonsense explanations of action to the conclusion that it is intuitively regarded as a mental state (p. 31). This inference is invalid if, as seems likely, things other than mental states, such as facts, can feature in commonsense explanations of action (as in 'She called her dog because it was dark').

As far as I can see, Nagel does not address the views of those who, like Fricker (2009), concede that knowledge features in explanations of thought and action but deny that knowledge is a mental state. According to Fricker (2009, p. 51), 'There is absolutely no tension between knowing's being a good explanatory state, and each instance of knowing being a conjunctive, hybrid phenomenon.' An opponent of Nagel might also think that ascriptions of knowledge are explanatory while denying (as Hyman \*ref does) that knowledge is a state.

do or say (Wellman, Cross & Watson 2001). Further, children's sensitivity to knowledge and ignorance appropriately guides a range of their actions, such as whether to rely on what someone says (Robinson, Champion & Mitchell 1999; Robinson & Whitcombe 2003) and whether to point to the location of an object (Dunham, Dunham & O'Keefe 2000; Liszkowski, Carpenter & Tomasello 2008). What Nagel doesn't mention, however, is that the picture becomes more complicated when we attempt to take a wider view and incorporate recent research on infants' and also older children's abilities.

Infants are sensitive to others' false beliefs from some time around their seventh month or earlier (Kovács, Téglás & Endress 2010). From around their first birthday infants manifest sensitivity to belief in a variety of ways. It is not just that infants look longer when an agent who apparently has a false belief acts as if she knew, which is evidence that such actions violate their expectations (Onishi & Baillargeon 2005; Surian, Caldi & Sperber 2007). It is also that infants' eye movements anticipate actions based on false beliefs (Southgate, Senju & Csibra 2007), and that facts about others' false beliefs shape some communicative actions (Knudsen & Liszkowski 2011) and to some extent guide word-learning (Carpenter, Call & Tomasello 2002) as well as modulating how subjects help others (Buttelmann, Carpenter & Tomasello 2009). Of course none of this establishes (at least not in any straightforward way) that typically developing humans do not acquire a concept of knowledge before they acquire a concept of belief. After all, it is an open question whether infants' abilities are best explained by their having a concept of belief. And if we do accept that these abilities are evidence that infants have a concept of belief, it remains possible that humans manifest sensitivity to knowledge earlier than to belief. But taking a slightly wider view of developmental research does show, contra Nagel, that the available evidence does not straightforwardly support the claim that capacities to ascribe knowledge come before capacities to ascribe belief.

After all, we know relatively little about mindreading in the first months of life;<sup>3</sup> and (to take a different line), it seems to be an open question which, if any, of these findings are best explained by concept possession.

<sup>5</sup> A further complication with the developmental research is that the representations of beliefs and other mental states discovered by this research (assuming for now that they have indeed been discovered) have con-

Notably, though, Kovács et al. (2010) show that information about others' false beliefs can generate non-rational interference on adults' non-psychological judgements concerning the location of an object and has related effects on seven-month-old infants' looking times.

While this research has recently attracted renewed interest, some of the credit should also go to earlier work. See Clements & Perner (1994); Garnham & Perner (2001); Garnham & Ruffman (2001); Ruffman, Garnham, Import & Connolly (2001)

Note that there is some debate about whether two- and three-year-olds' talk about and sensitivity to knowledge is best explained by supposing that they have a concept of knowledge. It may be that children are sensitive to whether others are engaged or disengaged in an event (?), and, separately, to whether others have a history of reliability or not. This would

sequences for thought or action: these representations certainly influence eye movements (Clements & Perner 1994) and (Kovács et al. 2010); they may also .

The answer may depend on what is involved in having a capacity to recognize belief and a prior mastery of the concept of knowledge. So before addressing this question directly it will be helpful to have some distinctions in place. The first distinction is between theory of mind abilities and theory of mind cognition. A theory of mind *ability* is an ability that exists in part because exercising it brings benefits obtaining which depends on exploiting or influencing facts about others' perception, knowledge, belief, desire or any other psychological states. Theory of mind *cognition* involves representing psychological states. This distinction matters because not all theory of mind abilities involve theory of mind cognition. To illustrate, some animals are able to modify their behaviour in the presence of eyes directed at them (e.g. Ernest-Jones, Nettle & Bateson 2011). It is plausible that this ability exists in part because it enables individuals to influence what others perceive. But it doesn't follow, of course, that exercising this ability involves representing others' perceptions; for all we have said, the ability might depend on representing eyes and not perceptions.

I shall interpret talk about *tracking* mental states in terms of theory of mind abilities. To track what another knows is to exercise theory of mind abilities concerning knowledge; this may but need not involve representing the other's knowledge. By contrast, I suppose that *recognising* and *ascribing* knowledge does involve representing knowledge states.

Nagel's core claim concerns theory of mind cognition, not only theory of mind abilities. The issue concerns representations of knowledge and belief, not merely abilities to track them.

Talk about tracking mental states is a natural

I want to start by stepping back from this question in order to compare and contrast Nagel on knowledge with Bratman on intention. Bratman aims to show that intention is not reducible to belief and desire, and he aims to do this by identifying functional and normative roles for intention which cannot be played by belief or desire. A theme common to Bratman and Nagel, then, is that if someone were to refrain from ascribing intention or knowledge and confine herself to belief and desire only, her abilities to explain thought and action would be compromised. Although Nagel's main argument on this point depends on an apparent contrast in explanatory generality, it may be that the explanatory power of knowledge depends on \*\*\*Hawthorne practical reasoning.

Bratman's position is consistent with the view that understanding intention is a more sophisticated achievement than understanding belief and desire.

<sup>&</sup>lt;sup>6</sup> Nagel also puts what I take to be the same thesis by saying that 'an ability to track what others would know seems to be the precondition, rather than the product, of an ability to track what they would believe' (p. 3). It may be important to distinguish mastery of a concept of knowledge from abilities to track what others know.

### 2. Introduction

Nagel contrasts two views. On the view she rejects, adult humans' 'understanding of action is fundamentally dependent on belief attribution' and in ascribing knowledge states we are in some way drawing on an understanding of belief (p. 3). Her own view is that 'the capacity to recognize belief depends on some prior mastery of the concept of knowledge' (p. 14). Put roughly, the contrast concerns whether being able to think about knowledge depends on being able to think about belief or whether the converse dependence holds. Of course these two positions may be consistent: perhaps there are dependencies running both ways.

## 3. \*\*\*

Arguments for the claim that knowledge is a mental state have been rejected by philosophers on several quite different grounds. Fricker allows (possibly only for the sake of argument) that knowledge does, and is ordinarily taken, to explain action (p. 35) while rejecting the claim that knowledge is a mental state.<sup>8</sup>

What do human adults understand of knowledge? Consider two claims about the nature of knowledge.

Nagel argues that they treat knowledge as explanatory of action, that they treat it as a state (rather than, say, as an ability), and that they treat it as a mental state (rather than, say, as a bodily state).

Is 'the identification of knowledge as a mental state ... one of the central principles of our [human adults'] intuitive mindreading system?'

# 4. Tracking vs. Representing

In footnote 25 Nagel writes:

'By observing that chimpanzees have some capacity to recognize the state of knowledge, one need not thereby credit chimpanzees with any very sophisticated understanding of the nature of knowledge'

I want to distinguish two issues. One is whether

Nagel also puts her view by saying that 'an ability to track what others would know seems to be the precondition, rather than the product, of an ability to track what they would believe' (p. 3). As explained below, it may be important to distinguish mastery of the concept of knowledge from abilities to track what others know.

See also FriThere is absolutely no tension between knowing's being a good explanatory state, and each instance of knowing being a conjunctive, hybrid phenomenon.

### References

- Buttelmann, D., Carpenter, M., & Tomasello, M. (2009). Eighteen-monthold infants show false belief understanding in an active helping paradigm. *Cognition*, 112(2), 337–342.
- Carpenter, M., Call, J., & Tomasello, M. (2002). A new false belief test for 36-month-olds. *British Journal of Developmental Psychology*, 20, 393–420.
- Clements, W. & Perner, J. (1994). Implicit understanding of belief. *Cognitive Development*, 9, 377–395.
- Dunham, P. J., Dunham, F., & O'Keefe, C. (2000). Two-year-old's sensitivity to a parent's knowledge state: Mind reading or contextual cues? *British Journal of Developmental Psychology*, 18, 519–532.
- Ernest-Jones, M., Nettle, D., & Bateson, M. (2011). Effects of eye images on everyday cooperative behavior: a field experiment. *Evolution and Human Behavior*, 32(3), 172–178.
- Fricker, E. (2009). Is knowing a state of mind? the case against. In P. Greenough & D. Pritchard (Eds.), *Williamson on Knowledge*. Oxford University Press.
- Garnham, W. & Perner, J. (2001). Actions really do speak louder than words—but only implicitly: Young children's understanding of false belief in action. *British Journal of Developmental Psychology*, 19, 413–432.
- Garnham, W. & Ruffman, T. (2001). Doesn't see, doesn't know: is anticipatory looking really related to understanding or belief. *Developmental Science*, 4(1), 94–100.
- Hogrefe, G., Wimmer, H., & Perner, J. (1986). Ignorance versus false belief: A developmental lag in attribution of epistemic states. *Child Development*, 57(3), 567–582. ArticleType: research-article / Full publication date: Jun., 1986 / Copyright © 1986 Society for Research in Child Development.
- Knudsen, B. & Liszkowski, U. (forthcoming 2011). 18-month-olds predict specific action mistakes through attribution of false belief, not ignorance, and intervene accordingly. *Infancy*.
- Kovács, Á. M., Téglás, E., & Endress, A. D. (2010). The social sense: Susceptibility to others' beliefs in human infants and adults. *Science*, 330(6012), 1830 –1834.
- Liszkowski, U., Carpenter, M., & Tomasello, M. (2008). Twelve-month-olds communicate helpfully and appropriately for knowledgeable and ignorant partners. *Cognition*, 108(3), 732–739.
- Onishi, K. H. & Baillargeon, R. (2005). Do 15-month-old infants understand false beliefs? *Science*, 308(8), 255–258.

- Robinson, E., Champion, H., & Mitchell, P. (1999). Children's ability to infer utterance veracity from speaker informedness. *Developmental Psychology*, 35(2), 535–546.
- Robinson, E. & Whitcombe, E. (2003). Children's suggestibility in relation to their understanding about sources of knowledge. *Child Development*, 74(1), 48–62.
- Ruffman, T., Garnham, W., Import, A., & Connolly, D. (2001). Does eye gaze indicate implicit knowledge of false belief? charting transitions in knowledge. *Journal of Experimental Child Psychology*, 80, 201–224.
- Southgate, V., Senju, A., & Csibra, G. (2007). Action anticipation through attribution of false belief by two-year-olds. *Psychological Science*, 18(7), 587–592.
- Surian, L., Caldi, S., & Sperber, D. (2007). Attribution of beliefs by 13-month-old infants. *Psychological Science*, 18(7), 580–586.
- Wellman, H., Cross, D., & Watson, J. (2001). Meta-analysis of theory of mind development: The truth about false-belief. *Child Development*, 72(3), 655–684.