# Self-Knowledge

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# Representationalism, First-Person Authority, and Second-Order Knowledge

Sven Bernecker

Undoubtedly, a person's sincere first-person present tense claims about his own present and conscious mental states, while neither infallible nor incorrigible, have an epistemic authority no second- or third-person claim can have. Self-referential judgments about one's present and conscious mental states are epistemically special in that they do not rely on empirical evidence. Each person is so related to propositions ascribing current and conscious mental states to himself that he can non-empirically know such propositions; while no one else is so related to such propositions. This idea is dubbed the doctrine of *first-person authority* or *privileged self-knowledge*.<sup>1</sup>

In a series of papers I have been arguing that the scope of our privileged self-knowledge is more limited than is usually acknowledged (1996, 1998, 2000, 2004). We possess privileged access to the particular contents of our conscious and occurrent beliefs but, given the representational theory of mind (or *representationalism* for short), we lack privileged access to the attitudinal components of our beliefs as well as to the fact that our alleged belief contents are in fact contents. Assuming representationalism,

Versions of this paper were presented at a workshop of the Philosophy Department of Birkbeck College London at Cumberland Lodge in May 2003, at a conference on first-person authority at the University of Tübingen in March 2004, at the 7th Inland Northwest Philosophy Conference on knowledge and skepticism at the University of Idaho in April 2004, at a conference on self-knowledge organized by the Royal Institute of Philosophy in March 2005 in Manchester, and at a session of the Society for Skeptical Studies at the Pacific Meeting of the American Philosophical Association in San Francisco in March 2005. My attendance at the Inland Northwest Philosophy Conference was made possible by an Overseas Conference Grant from the British Academy. My attendance at the Pacific Meeting of the American Philosophical Association was made possible by a Conference Grant from the Deutsche Forschungsgemeinschaft. I am grateful to the audiences for questions and to Peter Baumann, Chris Daly, Fred Dretske, Thomas Grundmann, Robert Epperson, Kirk Ludwig, Scott Sturgeon, and an anonymous reviewer for helpful comments. Some of the work on this paper was supported by a Heisenberg-Grant from the Deutsche Forschungsgemeinschaft.

<sup>1</sup> Throughout the paper I use "privileged", "a priori", and "non-empirical" synonymously. Given this usage of the term "a priori", a priori knowledge may not be based on our five senses, but may be based on introspection and memory.

privileged self-knowledge is consistent with us lacking the ability to rule out, by non-empirical means, the possibility that we don't have any beliefs.

This paper ties in with my longstanding project of using representationalism to dispel Cartesian superstitions about the scope of first-person authority. While my earlier work dealt with privileged self-knowledge of one's belief states, this paper is concerned with privileged self-knowledge of one's knowledge states. Is it a priori knowable, from a first-person perspective, that one knows that p? Anticipating the conclusion, I will argue that one cannot know a priori that one knows that p as opposed to being incapable of having any knowledge states; but one can know a priori that one knows that p as opposed to some other proposition q.

Sections I and II motivate the issue at hand. Section III draws a distinction between two kinds of first-person a priori second-order knowledge: one can know a priori that one knows that p in the sense that one has discriminative knowledge of one's specific knowledge content; or one can know a priori that one knows that p in the sense of being able to rule out that one lacks knowledge states altogether. Section IV explains the representational theory of mind. Section V argues that, given representationalism, it is impossible to rule out, on a priori grounds, that one lacks knowledge states altogether. Sections VI and VII defend this conclusion against various objections. Finally Section VIII argues that, though one cannot rule out, by reflection alone, that one lacks knowledge states, if one does have knowledge states, one can have a priori knowledge of their specific contents.

## I. Iterativity of a priori knowledge

Though explicit commitment to the possibility of first-person a priori second-order knowledge is rare, tacit commitment is not uncommon. Those who endorse the KK principle—or the "iterativity principle" as it is also called—are not only committed to the thesis that first-person a priori second-order knowledge is possible, but they make the stronger claim that whenever one knows a priori that p one is capable of knowing a priori that one knows a priori that p.

The KK principle states that for any subject S, time t, and proposition p: at t, S knows that p only if S knows (is capable of knowing) that S knows that p. Since it is not obvious how these qualifications should be formalized the KK principle is usually abbreviated as follows:  $Kp \supset KKp$  (or  $Kp \supset KKp$ ), where "Kp" stands for knowing that p and "KKp" stands for knowing that one knows that p. Even though the KK principle has recently lost some of its popularity it still has its strongholds. Among the recent advocates of (versions of) the KK principle are Panayot Butchvarov, Hector-Neri

<sup>&</sup>lt;sup>2</sup> Butchvarov argues that knowing something amounts to its being unthinkable that one is mistaken in what one claims to know. In the case of "primary", i.e., immediately justified knowledge the unthinkability of mistake isn't inferentially justified. "Let us suppose that 'I know that I exist' is such a [primary] judgment. According to our account, it is equivalent to p: 'I find it unthinkable that I am mistaken in believing that

Castañeda,<sup>3</sup> Roderick Chisholm,<sup>4</sup> Carl Ginet,<sup>5</sup> Risto Hilpinen,<sup>6</sup> Jaakko Hintikka,<sup>7</sup> Keith Lehrer,<sup>8</sup> Norman Malcolm,<sup>9</sup> H. A. Prichard, <sup>10</sup> Ernest Sosa, <sup>11</sup> Richard Taylor, <sup>12</sup>

I exist'... What could serve as sufficient evidence for p? Clearly, only the unthinkability of mistake in my believing that p, that is, my knowledge that I know that p" (1970: 89).

<sup>3</sup> Since knowing that one knows requires having "the idea of oneself as oneself, i.e., the capacity to make reference in the internal and irreducible first-person way" and since one may know without having self-knowledge, Castañeda (1970: 192) countenances all but first-person analogues of the KK principle: "in a dispositional sense of knowing and believing, (6) ["I know (believe) that p"] does imply (5) ['I know (believe) that I\* know (believe) that p', where 'I\*' is quasi-indexical" (193).

<sup>4</sup> Chisholm's version of the KK principle runs as follows: "If S knows that p, then, if S believes that he knows that p, then S knows that he knows that p" (1989: 14). This modal KK principle is said to apply solely to evident propositions, where "evident" refers to a high degree of internalist justification (cf. 11). For a

detailed criticism of Chisholm's KK principle see Conn (2001).

<sup>5</sup> Ginet defends a "qualified" KK principle: "if one knows that p and believes that one knows that p, then one knows that one knows that p" (1970: 166). Ginet claims that the qualification introduced into the KK principle Ais satisfied by most knowers with respect to most of the things they know" (169).

<sup>6</sup> According to Hilpinen, whatever a subject knows, he believes, believes that he knows, and knows that he knows. The KK principle is said to apply to propositions which is justified in the internalist sense (cf. 1970:

110-12).

Hintikka (1962: 78) proves the KK principle by showing that, given his axioms of epistemic logic, Kp and KKp are "virtually equivalent". Hintikka (1970: 145) stresses that the KK principle is only valid for a strong sense of "know" according to which knowing requires the possession of conclusive evidence. Evidence is conclusive if it puts the knower in a position to know  $\sim q$  whenever q contradicts Kp.

<sup>8</sup> According to Lehrer "knowing that p and believing that p requires a conscious conviction that p and an associated readiness to assert that p in appropriate circumstances" (1970: 135). Given this assumption, Lehrer claims, knowing p implies believing that one knows p as well as knowing that one knows p (1974: 228–32).

<sup>9</sup> Malcolm (1963: 58–72) distinguishes between a weak and a strong sense of "to know". When I use "know" in the weak sense, I am prepared to let an investigation determine whether the proposition in question is true or false. When I use "know" in the strong sense I do not concede that anything whatsoever could prove me mistaken. The example Malcolm gives is the claim to know that there is an ink bottle before him. Malcolm thinks that the KK principle holds for the strong sense of knowing: "When I say that I know something to be so, using 'know' in the strong sense, it is unintelligible to me (although perhaps not to others) to suppose that anything could prove that it is not so and, therefore, that I do not know" (1963: 72).

Prichard maintains that knowledge and belief are self-intimating states, that is, states which, upon reflection, make themselves apparent to their possessor. He therefore claims: "We must recognize that whenever we know something we either do, or at least can, by reflecting, directly know that we are knowing it, and that whenever we believe something, we similarly either do or can directly know that we are believing

it and not knowing it" (1950: 86).

Sosa distinguishes between animal knowledge and reflective knowledge. While animal knowledge is only a matter of arriving at true beliefs by the employment of reliable or virtuous faculties, reflective knowledge requires, in addition, that the subject is internalistically justified in thinking that his belief is grounded in a reliable cognitive faculty. Sosa endorses what he calls the "principle of epistemic ascent": if one reflectively knows that p and one considers whether one has animal knowledge that p, then one thinks that one does, and is justified in so thinking (2004: 147). In private communication Sosa has gone a step further and has endorsed the following version of the KK principle: if one reflectively knows that p, then one has animal knowledge to the effect that one has animal knowledge.

Taylor writes: "Consider an empirical proposition that I surely know, such as, the one expressed by Providence is the capital of Rhode Island' and call this 'p'. Consider another proposition expressed by 'I know p' and call this 'q' ... [W] hile p and q surely express different propositions, whose truth values may differ, my knowledge of p and my knowledge of q are not merely closely connected, but are in fact one and

the same" (1955: 63, 65).

and John Tienson. 13,14 Let us take a brief look at some of the arguments for and against iterativity.

One thing to recommend the KK principle is the fact that, when combined with the rule of assertion (which dictates that you should assert only what you know), it offers a compelling explanation for why Moore-type statements of the form "p; but I don't know that p'' (are said to) have a paradoxical ring to them. <sup>15</sup> Assuming, first, that when one asserts that p, one implies that one knows that p and, second, that knowing p implies that one is in a position to know that one knows that p (iterativity), it follows that when one asserts that p, one is in a position to know that one knows that p. The Moore-type statement "p; but I don't know that p" is paradoxical because, by asserting the first conjunct, I imply that I am in a position to know that I know that p. But the second conjunct states that I don't know that p. Uttering the Moore-type statement is a contradictory performance: the second conjunct denies what the first conjunct asserts. It is like promising with crossed fingers. 16

What speaks against the KK principle? Some find the KK principle unacceptable because it denies knowledge to animals and young children on the ground that they lack an adequate understanding of the concepts of knowledge or justification. This objection can be taken care of by a slight modification of the principle proposed by Chisholm (1989: 14-15, 99-100) and Ginet (1970: 165-6): If you know that p, then, if you believe that you know that p, then you know that you know that p. In other words,  $Kp \supset (BKp \supset KKp)$ . This modal version of the KK principle gets around cases of conceptual poverty because presumably one cannot believe that one knows that p unless one possesses the concept of knowledge or justification. 17

According to another standard criticism of iterativity, the KK principle has the unfortunate consequence of making knowledge a very rare commodity indeed. Since the KK principle demands that to know something we have to be sure that we know it, and because we can never be sure that we know anything, the KK principle

<sup>&</sup>lt;sup>13</sup> Tienson (1974: 290) thinks that a person doesn't genuinely know unless he can "tell what part of his apparent knowledge is knowledge.'

On the history of the KK principle see Hintikka (1962: 79-82).

The idea that, by asserting p, one implies that one knows that p is defended by DeRose (2002), Moore (1962: 277), Slote (1979), Unger (1975: 250-65), and Williamson (2000: ch. 11).

Hintikka thinks that the Moore-type statement "I know that p; but I don't know that I know that p" is equally "absurd" and "self-defeating" (1962: 83-4).

<sup>&</sup>lt;sup>17</sup> The claim that one cannot believe that p unless one has the concepts involved in p has been challenged by Bach (1997). According to Bach, that-clauses do not univocally denote propositions. This claim arises from the observation that sometimes a "that p"-clause attached to a propositional attitude verb cannot be replaced salva veritate by a definite description of the form "the proposition that p". For example, it may be unacceptable to interpret "S believes that horses are mammals" as meaning "S believes the proposition that horses are mammals". The acceptability can be restored by substituting a different noun phrase—for example. "the fact"—for the noun phrase "the proposition". Granted that facts are truth-makers of propositions, it may be argued that one can believe the fact that horses are mammals without possessing the concept horse. But if this is so, it follows that "believing that" does not necessarily imply the deployment of concepts. In this study I will abstract from Bach's observation.

leads to skepticism. As the standards for knowing go up, the amount of knowledge we have goes down. In response to this objection, it is pointed out that the KK principle does not claim that one is performing, whenever one knows something, another act of self-observation. Instead the KK principle states that the truth-conditions of Kp and KKp are the same and that, therefore, KKp is not any less certain than Kp. All those circumstances which would justify one in saying "I know" also justify one in saying "I know that I know". Knowing that one knows is a gratuitous by-product of knowing or, to use Schopenhauer's and Hintikka's words, "knowing that one knows only differs in words from knowing". 18 And given that the conditions for knowing that one knows are the same as the conditions for knowing, there is also no need to be worried by the infinite regress entailed by the KK principle: If knowing implies knowing that you know, knowing that you know implies knowing that you know that you know, etc. The regress is benign if one assumes that knowing that one knows does not entail information in excess of that provided by knowing. "Kp", "KKp", "KKKp", etc. are just different expressions of the same thing, though, of course, "Kp" is preferable for practical reasons.

Williamson (2000: ch. 5) recently developed an objection to the KK principle which rests on the so-called "margin of error principle": if S cannot distinguish x and y, and if y is not f, then S cannot know that x is f. Suppose x, y, and z are trees differing in height. Tree x is 10 m, y is 11 m, and z is 12 m. Since S cannot distinguish x from y, he doesn't know (by the margin of error principle) that x is less than 11 m. But he can tell x from z and thus knows that x is less than 12 m. Since S cannot tell y from z, he doesn't know (by the margin of error principle) that y is less than 12 m. Thus x, but not y, has the property of being known by S to be less than 12 m. Because S cannot tell x from y, he doesn't know (by the margin of error principle) that x has this property that y lacks. In other words, S doesn't know that he knows that x is less than 12 m. A proponent of iterativity can try to undermine Williamson's critique of the KK principle by arguing that the margin of error principle depends on the safety principle (i.e.,  $Kp \supset (Bp \square \rightarrow p)$ ) and that knowledge is not safe. 19 Another way of responding to Williamson's charge is to claim that there are some self-presenting mental states, states that are token identical with the knowledge that they exist. Cases in point are phenomenal qualities such as being in pain, feeling cold, and feeling angry (Conee 2005; Weatherson 2004). Yet a thorough discussion of Williamson's critique of iterativity would take us too far afield.

The upshot of this brief survey of arguments pro and con iterativity reveals two things. First, there are no knock-down arguments against the KK principle and, second, there is something to recommend it. So notwithstanding the widespread rejection of iterativity among contemporary epistemologists, it is not obviously false. Though the logical or analytic reading of the KK principle (whereupon KKp is a

<sup>&</sup>lt;sup>18</sup> Schopenhauer (1891: sect. 41, p. 166); Hintikka (1962: 80-2). See also Hilpinen (1970: 126).

<sup>&</sup>lt;sup>19</sup> This is the line taken by Brueckner and Fiocco (2002) and by Neta and Rohrbaugh (2004). For criticisms of the safety principle see e.g. Baumann (2008) and Comesaña (2005).

gratuitous by-product of Kp) is less problematic than its *epistemic* counterpart it is also much less interesting, for it denies that there is a substantive distinction between first-and second-order knowledge. According to the epistemic reading of iterativity assumed here, more or different evidence may be required for knowing that you know that p than for knowing that p. Given this reading, it is perfectly consistent to assert "I know that p; but I don't know that I know that p".

If the KK principle holds, it presumably holds both for empirical and a priori knowledge. There is no good reason for why the KK principle should hold for one kind of knowledge (empirical or a priori) but not the other. The reason is that any argument for the empirical KK principle (i.e., the thesis that S knows empirically that p entails S knows empirically that he knows empirically that p) can be easily turned into an argument for the a priori KK principle (i.e., the thesis that S knows a priori that p entails S knows a priori that he knows a priori that p), and vice versa. Likewise, any objection to the empirical KK principle can be easily turned into an objection to the a priori KK principle.

A little thought reveals that there are problems with the a priori KK principle. Suppose that S knows a priori that there are infinitely many prime numbers. Further suppose that for S to know what he knows, it is sufficient that the following three conditions hold: (i) it is the case that there are infinitely many primes, (ii) S is justified in believing that there are infinitely many primes by being able to prove, by non-empirical means only, that there exists an infinitude of primes, and (iii) there is no misleading undefeated defeater, such that if S were aware of it, it would undermine his justification from (ii). O Given the a priori KK principle, S's knowing a priori that there exists an infinitude of prime numbers entails that he knows a priori that he knows a priori that there exists an infinitude of prime numbers. But it is questionable that (iii) is knowable a priori. Consequently there is reason to doubt, first, that it is knowable a priori that one knows a priori that there is an infinitude of prime numbers and, second, that (i) is knowable a priori. It might be argued that it is only a posteriori determinable that the target belief is supported by a priori reasons.

Notwithstanding the fact that S's knowing a priori that p may not entail S's knowing a priori that he knows a priori that p, the bottom line is that proponents of the KK principle seem to be committed to maintaining that we are capable of having first-person a priori second-order knowledge.

#### II. The priority of knowledge

As was explained above, some of my earlier papers argue that though we have privileged access to the particular contents of our conscious and occurrent beliefs we

Condition (iii) should be uncontroversial since virtually everyone accepts that knowledge is incompatible with undefeated defeaters. Here a defeater could consist in a paper by an expert in algebra arguing that n is the greatest prime number.

are not in a position to rule out, by a priori considerations, that we lack beliefs altogether. The goal of this paper, as was explained, is to show that one cannot know a priori that one knows that p, as opposed to being incapable of having any knowledge states. But given that knowledge implies belief, if belief states are opaque to the mind, so are knowledge states. Thus the question arises whether the impossibility of first-person a priori second-order knowledge follows automatically from my earlier arguments regarding the opacity (anti-luminosity) of belief.

Even if the opacity of knowledge were implied by the opacity of belief, the present inquiry wouldn't be superseded by my earlier work since the arguments for the opacity of knowledge differ from those for the opacity of belief. More importantly, however, there are legitimate reasons to doubt that knowledge implies belief. Peter Unger (1975), Timothy Williamson, and others maintain that when you assert that p, you not only represent p as being true—you not only represent yourself as believing that p—you also represent yourself as knowing that p. Williamson (2000: chs. 1–3) suggests reversing the order of explanation between knowledge and belief: instead of analyzing knowledge in terms of belief, the concept of knowledge should be used to elucidate the concept of belief. Knowledge is taken to be a simple and irreducible mental state, a mental state that cannot be explained in terms of belief plus certain other conditions such as truth and justification.

Received wisdom in epistemology has it that knowing factors into a mental and a non-mental (or environmental) component. The mental component consists of the belief that p, and the non-mental component consists of the truth of p (supposing that p concerns some aspect of non-mental reality). Williamson is aware that it seems strange to say that knowledge is an irreducible mental state, given that knowing entails believing truly which isn't a purely mental state (at least not if the truth of p is independent of the believer). He uses an analogy from geometry to show that there is nothing structurally incoherent in the idea that the non-mental state of believing truly is "sandwiched between" the mental state of believing and the mental state of knowing. The non-geometrical property of being a triangle whose sides are indiscriminable in length to the naked human eye is also sandwiched between the geometrical property of being an equilateral triangle and the geometrical property of being a triangle (2000: 27–8).  $^{21}$ 

One of the arguments in support of the claim that knowledge is an irreducible mental state concerns the role of knowledge in the explanation of action. That a person knows something may better explain his actions than merely that he believes it truly. Williamson gives the following example. You are at home when someone knocks on

<sup>&</sup>lt;sup>21</sup> Jonathan Lowe (2002: 484–5) offers reasons to doubt that this analogy is pertinent. Knowing essentially involves the truth of what is known, which is something that is non-mental. Being an equilateral triangle, however, does not essentially involve having sides which are indiscriminable in length to the naked human eye. The reason for the latter entailment is the purely *logical* fact that if lines are of the same length, then they cannot be distinguished in respect of their length, not by the human eye and not by any other means.

the door. You do not reply and wonder how the visitor reacts. If before knocking the visitor knew that you are at home, then he will (rightly) conclude that you are hiding from him and will be offended. Yet if before knocking the visitor merely had the true belief that you are in, then he is likely to abandon this belief when you fail to reply and he will not be cross with you. So the visitor is less likely to revise his belief concerning your whereabouts when you fail to reply if he knows than if he merely believes truly. "[S]omeone who knows that you are in has grounds that will not be undermined just by your failure to reply" (Williamson 2000: 86). In other words, knowledge is more robust than mere belief against revision upon the discovery of misleading evidence. Williamson concludes that "[w]hether [the visitor] would take offence is better predicted by whether he knows than by whether he believes. His taking offence is more highly correlated with knowing that you are in than with believing (truly) that you are in" (ibid.). 22

Without going into the details of the priority-of-knowledge view, we can see that if Williamson is right in claiming that knowledge is a simple mental state rather than a complex one involving belief, the opacity of knowledge does not follow from the opacity of belief. And if knowledge doesn't imply belief, knowledge may be transparent to the mind while belief is opaque.

# III. Two kinds of second-order knowledge

It is widely assumed that the truth-conditions of knowledge-ascribing sentences vary in certain ways according to the context in which they are uttered or entertained. The context consists of extra-evidential features such as the objective probability of some error-possibility being realized or of conversational features such as the attention, interest, and stakes of the parties hereto. As long as error-possibilities are unlikely or properly ignored, the standards for knowledge remain low, and the concept expressed by the term "knowledge" is that of low-standard knowledge. But when error possibilities become salient, the standards for knowledge rise. Opinions differ on whether the varying standards a subject must live up to so as to count as knowing are relative to the conversational context of that epistemic subject (subject contextualism), or rather to the conversational context of the attributor, i.e., the person describing the subject as a knower or a non-knower (attributor contextualism). It is customary to call the former position "subject-sensitive invariantism" and to reserve the term "contextualism" for

A problem with this reasoning is that since knowledge does not necessarily involve confidence, the discovery of misleading evidence might lead the knowing subject to abandon his knowledge. In fact, Williamson allows that knowledge need not involve confidence, for he rejects epistemic internalism (cf. 2000: ch. 8). And given Williamson's endorsement of epistemic externalism, his claim that knowledge is more robust than belief is at best *ad hoc*. According to externalism, the fact that the visitor's true belief that you are at home is based on "grounds that are not undermined just by your failure to reply" does not make it more likely that he will continue to hold this belief when you fail to reply than if his true belief was not based on such grounds. For the visitor could be ignorant of the fact that his belief is based on such grounds and could therefore have no confidence in this belief.

the latter position. For reasons that will become apparent in Section VIII I prefer subject-sensitive invariantism over attributor contextualism and take the relevant context to consist of extra-linguistic features as well as conversational features. Yet at this stage the argument is indifferent to the distinction between subject and attributor contextualism. I will therefore use "contextualism" to cover both subject and attributor contextualism.

The dependence of knowledge ascriptions on conversational contexts can be spelled out in terms of contrastive propositions. According to the contrastive account, knowledge is a ternary relation of the form KSpq, where S is the epistemic agent, p the proposition known, and q a contrast proposition. Questions about whether S knows p, considered in isolation from the circumstances in which the questions about p arise, cannot be answered. There is no such thing as knowing that p simpliciter, as opposed to knowing p rather than q (cf. Schaffer 2005). Every knowledge claim implies infinitely many contrastive cases. For instance, knowing that there is a horse in the barn implies that there is a hoofed mammal, that there is an animal, that there is a material object, and that no evil demon is causing me to falsely believe that there is a horse, etc. Depending on the context in which the knowledge claim is made, different contrastive cases are to the fore. And depending on which counter-possibility a knowledge claim is contrasted with, different kinds of evidence are needed to qualify the knowledge claim as knowledge. When the issue is whether there are any animals in the barn, the claim to know that there is a horse is easier to justify than when skepticism about the external world is at issue. Thus whether someone is justified in believing that p (and knows p) depends on the context in which he forms the belief that p. Something may be evidence for p relative to one context while failing to be evidence for the same p relative to another context.

What does all this have to do with the possibility of first-person a priori second-order knowledge? Depending on the context, a knowledge claim to the effect that one knows that p can be aimed at the elimination of different counter-possibilities. By claiming to know that I know that p I may want to rule out that I know some other proposition q, that I merely believe p, or that it is not the case that I lack any knowledge states, regardless of their content. What counts as evidence for knowing that I know that p crucially depends on which of these contrastive cases is assumed. Different evidence is needed to justify the claim that I know that p when what is at issue is the limited question "Do I know p or q?", than when what is involved is the wide-ranging question "Do I have any knowledge states or am I knowledgeless?" Following the distinction between local and global skepticism, I will distinguish between local and global contrastive cases. On the local reading of "I know that I know that p," I have to be able to rule out the possibility that I know some other proposition q. According to the global reading of "I know that I know that p," I have to be able to rule out the possibility that I don't have any knowledge states whatsoever. The difference between the local and the global reading of first-person second-order knowledge claims comes down to the difference between knowing what one knows and knowing that one

knows. (There will be more on the knowing what/knowing that distinction in Section VIII.) The aim of this paper is to show that representationalism contradicts the global reading of first-person a priori second-order knowledge claims according to which one knows a priori that one possesses knowledge states rather than being knowledgeless. But before I can explain the central argument I need to make a few general remarks concerning the representational theory of mind.

#### IV. The representational theory of mind

The representational theory of mind concerns the question of how mental representations come to have their contents. The idea is that our mental contents depend on the relations in which we stand to certain aspects of the physical and social environment. The dependence relation of internal states on external affairs is construed as a causalinformational relation. Whether an internal state bears any mental content, and which content it bears, depends on the causal connections between it and certain extrinsic states of affairs. The content of a mental representation is grounded in the information it carries about what does or would cause it to occur.

Causal-informational relations are not sufficient to determine the content of mental representations, for a representational state can be caused by something it does not represent, and can represent something that is not among its causes. There are two main attempts to specify what renders a causal-informational state a mental representation: the asymmetric dependence account (Fodor 1990a, 1994) and the teleological account (Dretske 1995; Fodor 1990b; Millikan 1984; Papineau 1987). According to teleological theories, representational relations are those which a representationproducing mechanism has the selected (by evolution or learning) function of subserving. According to asymmetric dependence theories what distinguishes merely informational relations from content-determining ones is a higher-order relation: informational relations depend upon content-determining ones, but not the other way round. For example, we would not token the mental representation type horse when confronted with a cow on a dark night unless we tokened the mental representation type horse when confronted with a horse, but not vice versa. Therefore, the mental representation tokened in the presence of horses means horse, in spite of the fact that there is a causal-informational relation between it and cows on a dark night. My point about representationalism being incompatible with knowing that one knows that p, understood globally, applies both to the asymmetric dependence theory and to teleological accounts.

The chief motivation of representationalism is that it is the most promising way of accounting for mental content while preserving naturalism. According to naturalism. mental content arises out of non-meaningful bits. Those non-meaningful bits must be part of the furniture of the world of natural causes and objects. If the representationalist's account of mental content is correct, a complete description of the physical properties of someone's head and of the interactions between the person and his

environment suffice to account for how the person's thoughts can be about the things they are about. The relata and the relation that constitutes (or at least suffices for) mental content is purely natural and, perhaps physical.

My goal is to defend a conditional claim: If the representational theory of mind is correct, then first-person a priori second-order knowledge is impossible. Since the truth of this conditional is consistent with the falsity of representationalism, there is, fortunately, no need to establish the truth of representationalism.

The representational theory of mind is committed to content externalism (or antiindividualism), that is, the view that the individuation conditions of mental content
supervene on external or relational properties of the agent's physical or social environment rather than solely on internal properties of his mind and brain. Content externalism is supported by the standard "twin-earth" arguments (Burge 1979; Putnam
1975). If an agent's mental contents did always supervene upon his intrinsic properties,
then he would share mental contents with his doppelgänger on twin earth. But the
twin-earth arguments purport to show that such internal physical duplicates might
have different mental properties, i.e., that different de dicto belief ascriptions might be
true of them. Hence, the kinds of mental contents an agent entertains are not only
determined by his intrinsic physical constitution but also depend upon his physical or
social environment.

The main difference between content externalism and representationalism is that while the former concerns only the conditions for *individuating* thought contents, the latter concerns also the conditions for *having* thoughts. Representationalism not only accounts for the difference among propositional attitudes but also for the difference between propositional attitudes and other states lacking mental content.

#### V. Not knowing a priori that one knows

After having set the stage I will proceed by arguing that the representational theory of the mind is incompatible with the global reading of knowledge ascriptions of the form "I know that I know that p".<sup>23</sup>

There is a different argument to the same conclusion. Section I motivated the possibility of first-person a priori second-order knowledge by means of the KK principle. Iterativity is commonly associated with epistemic internalism about knowledge, that is, the view that for a justified belief to be knowledge, the agent must be able to know or at least justifiably believe that his belief is justified. Moreover, there is widespread suspicion that there is a principled conflict between epistemic internalism and content externalism (Boghossian 1989; BonJour 1992: 136; Chase 2001; Pritchard and Kallestrup 2004; Vahid 2003). For if an epistemic agent is to know something (in the internalist sense), he must know or at least justifiably believe, by reflection alone, whether his belief in that thing is justified. Now if, as content externalism seems to imply, knowing the contents of one's beliefs requires empirical investigation, then this means that the justifying factors of the agent's beliefs are not internally (i.e., reflectively) available to him. And this means that content externalism (and thus representationalism) implies the falsity of first-person a priori second-order knowledge. Discussing this argument would take us too far afield.

Given that mental content consists of the nomic dependence of brain states on environmental conditions—as representationalism maintains—a type of configuration in my brain is a knowledge state about, say, horse only if it is normally tokened in the presence of horses. But how can I know, from a first-person perspective, that there is such a systematic relationship between my internal states and those of an external kind? Reflection will not do here, for it only reveals the intrinsic properties of my inner states, and representationalism has it that the property of bearing mental content is an extrinsic or relational property. Just by reflection, I therefore cannot tell whether my so-called "knowledge states" have content or are contentless. For all I know a priori, the internal state I refer to as the "knowledge" that this is a horse could be nothing but an episode of heartburn or some other state lacking mental content. Since reflection doesn't tell me that my so-called "knowledge states" are in fact knowledge states, i.e., depend on nomic relations—whether engendered by the ordinary objects I normally suspect, or by the machine which maintains my brain in a vat—I am unable to know by reflection that I possess knowledge states (or any other content-bearing states for that matter). And if having knowledge states is a necessary condition for having a mind, representationalism is committed to skepticism regarding our ability to know by reflection that we are minded beings rather than mindless zombies.<sup>24</sup>

Let us go over the argument once more. The representational theory of mental content maintains that for my internal state to represent, say, a horse and to have horsehood as its content it has to be the case that under normal conditions this state covaries regularly and reliably with the presence of horses. It must be the case that the state occurs in me when, and only when, horses are present in my vicinity (and I am awake, the lighting conditions are good, I am looking in the right direction, etc.). The occurrence of this state, then, serves as an indicator of the presence of horses; it carries the information horse or horse is present nearby. The crux is that, just as things other than horses can prompt the internal state which normally indicates the presence of horses, it is also possible that the internal state correlates with no external affair whatsoever. But when an internal state doesn't regularly and reliably covary with anything, it lacks determinate content and hence doesn't even meet the minimal condition for knowledge states.

How can I tell whether my internal states have content and hence meet one of the necessary conditions for something being knowledge state? This I cannot know by reflection. For reflection can only inform me about the intrinsic properties of my internal states. But representationalism has it that the property of having content is an

<sup>&</sup>lt;sup>24</sup> In (1996) I argue that content externalism cannot countenance a priori knowledge of the modes of one's thinking. And in (2000, pp. 11–19) I argue that content externalism is incompatible with a priori knowledge of the fact that one has belief states. Both arguments can be seen as precursors of the critique of first-person a priori second-order knowledge developed here. Employing his information-based semantics Dretske (1995: 56–7; 2003a; 2003b; 2004) also concludes that one cannot know a priori that one has a mind. In (2004) I argue that this skeptical position is incompatible with one of Dretske's earlier arguments against external-world skepticism.

extrinsic or relational property and that the intrinsic properties of internal states are logically independent from their extrinsic properties. Just as it cannot be determined on the basis of my intrinsic properties whether, say, I am an uncle (because being an uncle is an extrinsic property), I cannot tell on the basis of my intrinsic properties whether I am a propositional zombie. For all I can know through reflection, my internal states may not systematically covary with anything and hence may lack content. But if reflection doesn't provide me with information to the effect that I possess contentful states, then I cannot rule out, by reflection, that I lack knowledge states altogether.<sup>25</sup>

#### VI. A pragmatic contradiction

It may be argued that my critique of first-person a priori second-order knowledge set forth in the previous section is incoherent, in the sense that the truth of the conclusion renders the argument for it incomprehensible. The argument for the impossibility of first-person a priori second-order knowledge can be parsed into four steps:

- (1) Given representationalism, the property of knowledge states of bearing mental content is an extrinsic or relational property.
- (2) A priori reflection only reveals (some of ) the intrinsic properties of my (alleged) knowledge states.
- (3) The intrinsic properties of my (alleged) knowledge states are logically independent of their relational properties.
- (4) Therefore, I don't know a priori that my (alleged) knowledge states possess mental content.

If premise (2) is knowable at all presumably it is knowable a priori. I don't need to consult empirical data to find out that I am not in a position to have a priori knowledge about the relational properties of my knowledge states. In other words, it is reflection rather than empirical fieldwork that tells me what is and what isn't accessible via reflection. So it is not unreasonable to suppose that knowledge of premise (2) is an instance of first-person a priori second-order knowledge. But if I am convinced of conclusion (4), I have no reason to maintain that I am capable of a priori knowledge of my knowledge states. Therefore the argument for first-person a priori second-order knowledge being unattainable is incoherent in the sense that the acceptance of conclusion (4) prohibits the acceptance of the indispensable premise (2).

<sup>&</sup>lt;sup>25</sup> Even if it is granted that we cannot, on the basis of reflection, rule out that we lack knowledge states, most of us will probably want to claim that, at least once in a while, they do know a priori that they know something. If they in fact know this, they must know it empirically. But what could be the empirical basis of our knowledge that we are minded and knowledgeful beings? I am inclined to agree with Dretske (2003b: 140–1) that the knowledge in question rests on testimony: we know that we have minds because our parents told us so. This suggestion leads to an infinite regress: my parents know that they are minded beings because their parents told them; and they knew because their parents told them, etc. Dretske's suggestion is best understood as a component of the theory-theory of mind.

Granted that premise (2) is an instance of first-person a priori second-order knowledge, one cannot coherently entertain the truth of the unattainability of first-person a priori second-order knowledge—at least not by means of the argument (1) to (4). Holding the view that first-person a priori second-order knowledge is unattainable prevents the acceptance of this very view. Yet just because one gets tangled up in a pragmatic contradiction when one tries to argue for the unattainability of first-person a priori second-order knowledge doesn't mean that this position cannot be true. This would only follow if the thesis whereupon first-person a priori second-order knowledge is unattainable contained a logical contradiction; but a logical contradiction is out of the question. The fact that skepticism about our ability to know a priori that we have knowledge states involves a pragmatic contradiction only aggravates the skeptical problem: if the suggestion that we lack privileged access to our knowledge states cannot even be coherently accepted, then, if this suggestion were true, we would be incapable of acknowledging that it is true.

### VII. Reliabilism and self-verifying beliefs

If I am able to have beliefs, then I am not a propositional zombie. For if I were a propositional zombie, then, by definition, I couldn't have any beliefs, let alone the belief that I am not a propositional zombie. I couldn't believe that I am not a zombie, unless it was true. The belief that I am not a propositional zombie is self-verifying.

Epistemic reliabilism has it that for a state of believing p to qualify as knowing p the belief must be reliably true. This idea is commonly explicated in terms of subjunctive conditionals which tie the belief that p to p's truth. To know that p, the belief that p must not be accidentally true but must track or indicate the facts that make it true. Truth tracking comes in two flavors: the sensitivity account and the safety account. S's belief that p is sensitive iff in all and any nearby possible worlds where p, p, and similarly p's belief that p is safe iff in all and any nearby possible worlds where p believes p, p. The belief that p is safe iff in all and any nearby possible worlds where p believes p, p. The belief that p is a prime example of a truth-tracking belief. I would not—indeed could not—believe p unless p was true. There are no possible worlds in which a self-verifying belief is false, any self-verifying belief is both sensitive and safe. Thus given reliabilism, representationalism allows me to know a priori that p and p and p and p are than a propositional zombie; or so a critic might argue.

The problem is that the vacuous fulfillment of the sensitivity and safety conditions by all self-verifying beliefs is at odds with the spirit of the project of giving a modal analysis of knowledge. Intuitively we would want to say that one can be unjustified in holding a self-verifying belief. Consider your belief that you have (had) biological parents. Since your entertaining this belief depends on your existing, and your existence depends on your having (had) parents, the belief is true whenever it is entertained. Does this mean that you necessarily know that you have (had) parents? Knowledge does not come that cheaply. For it could be that you infer that you have (had) parents from

some other belief which is completely unrelated, such as the belief that Jerry is at the movies. Or it could be that you come to believe that you have (had) parents on the basis of the deliverances of a crystal ball. Intuitively a belief can be self-verifying and still fail to qualify as knowledge.

Comparable problems arise for necessary truths and necessary falsehoods. Necessarily true beliefs are true whenever they are entertained regardless of the belief-formation process. The reliabilist seems unable to distinguish between a well-justified belief in a necessary truth and a poorly justified one. Likewise, the reliabilist seems to have to say that one could never be the least bit justified in believing something that is necessarily false. But one would want to say that a mathematician could be justified in believing his theory even if the theory included a subtle contradiction (and so is necessarily false). Similarly, when mathematicians disagree about the Continuum Hypothesis or about the existence of Goldbach numbers, are all those on the wrong side of these disputes completely unjustified in their beliefs? Surely not.

Reliabilists are acutely aware of the fact that not every self-verifying belief is an instance of knowledge and they have come up with different strategies to exclude poorly justified self-verifying beliefs from the ranks of knowledge. A pioneer of reliabilism, David Armstrong (1973: 178-80), disqualifies poorly justified self-verifying beliefs by demanding that the content of a belief be nomically relevant for the satisfaction of the subjunctive tracking conditions. According to Robert Nozick, my true belief that p counts as knowledge only if the following subjunctive conditionals hold: (i) if p weren't true, I wouldn't believe that p, and (ii) if p were true, I would believe that p. To rule out self-verifying beliefs and necessary truths, Nozick (1981: 196) considers adding a further condition according to which (i) and (ii) may not be satisfied simply in virtue of my believing that p. If believing that p alone makes it the case that if p were false, I wouldn't believe p, and if p were true, I would believe p, then the belief that p does not qualify as knowledge. Alvin Goldman (1986: 296-7) accounts for poorly justified self-verifying beliefs and tautologies by relativizing the tracking conditions to particular psychological methods of belief-formation and beliefpreservation. What is important to realize is that no reliabilist is willing to count a belief as knowledge simply in virtue of it being self-verifying.<sup>26</sup>

The objection at hand rests on the erroneous assumption that reliabilism about knowledge automatically includes self-verifying beliefs in the ranks of knowledge. Yet the reliable correlation between me not being a propositional zombie and my believing I am not a zombie, taken by itself, doesn't render my belief that I am not a zombie knowledge—not even according to reliabilism. My belief that I am not a zombie doesn't qualify as knowledge because none of the internal states that I may use to support the belief indicate (carry the information) that I am not a zombie. I could have the same internal states even if I was a zombie.

<sup>&</sup>lt;sup>26</sup> For a recent reliabilist treatment of logical and other necessary truths see Roush (2005: 134–47).

#### VIII. Knowing a priori what one knows

We have seen that the representational theory of the mind contradicts the global reading of knowledge ascriptions of the form "I know that I know that p" whereby I claim to be able to rule out, by reflection alone, that I lack any knowledge states. This poses the question of whether representationalism also contradicts the local reading of such knowledge ascriptions whereby I claim to have discriminative knowledge a priori of the propositional content of my first-order knowledge. Is it possible to eliminate, by reflection alone, the possibility that one knows q rather than p?

It might be thought that since knowing what I know (p or q) implies knowing that I have knowledge states (as opposed to being a knowledgeless zombie), if I am not in a position to know a priori that I have any knowledge states, then I am not in a position to know a priori what it is I know. This reasoning rests on the principle of closure under known implications which states that if S knows x, and S knows that x entails y. then S knows y. In this case, if S knows a priori that knowing a priori what he knows entails knowing a priori that he knows, but if S doesn't have a priori knowledge to the effect that he knows, then, given the closure principle, it follows that S doesn't have a priori knowledge of what he knows.

The closure principle is commonly used to support external-world skepticism. The proposition that I am sitting on a chair implies the falsity of the skeptical counterpossibility that I am a brain in a vat. If I am aware of this implication, the closure principle yields the consequence that if I know that I am sitting on a chair, then I know that I am not a brain in a vat. Since the brain-in-a-vat hypothesis is designed to be irrefutable, I cannot know that I am sitting on a chair; hence external-world skepticism is true. And if the closure principle holds, it presumably holds for both empirical and a priori knowledge, for the method by which knowledge is acquired doesn't affect the entailment relations.

The denial of privileged knowledge of one's specific contents of one's knowledge states is out of the question. Privileged self-knowledge of what one is thinking is not only intuitively plausible but it is also an element of minimal rationality. If one were incapable of privileged access to the contents of one's knowledge states, one couldn't become aware of tensions among them and wouldn't be able to try to rationally readjust one's epistemic system (cf. Burge 1996: 98). Thus if representationalism were incompatible with privileged knowledge of the specific contents of one's knowledge states, this might amount to a reductio of representationalism.

How can I know a priori what it is I know even though I cannot know a priori that I know anything? The answer lies in the contextualization of the closure principle. Regarding knowledge of the external world, most epistemologists agree that the closure principle is too strict to be convincing. If knowing ordinary empirical propositions would require the elimination of each and every known alternative (including skeptical alternatives), as suggested by the closure principle, we could never know anything about the world around us. A more plausible view is that knowledge requires

the elimination of only some—namely the relevant—alternatives. Given that skeptical alternatives are usually not (considered to be) relevant, the fact that our evidence cannot eliminate them doesn't force us to abandon our ordinary knowledge claims.

Here is a well-known example from Dretske (1970). Visiting a zoo, you see some striped animals in a cage marked "zebras". Your evidence justifies the belief that these animals are zebras. You know that to be a zebra means to not be a painted mule. But your evidence does not count towards these animals not being painted mules since you would have exactly the same evidence were it a hoax. Does this mean that you don't know that these animals are zebras? The answer is "no", since in ordinary cases of claiming to know that some animals in the zoo are zebras the possibility that they are painted mules is not relevant. Thus, you can truthfully claim to know that they are zebras despite your inability to rule out this fanciful alternative. Skepticism is powerless to undermine everyday empirical knowledge. But in some exceptional circumstances, the painted-mules hypothesis may become a relevant alternative. And when the painted-mule case is indeed relevant, then you cannot know that what you are seeing are zebras unless you have eliminated the possibility that these animals are cleverly disguised mules.

There is no reason to suppose that the conditions for a priori knowledge are any stricter than the conditions for empirical knowledge. Just as empirical knowledge isn't always closed under known implications, neither is a priori knowledge. And when a priori knowledge is not closed under known implication, one needs to rule out only relevant counter-possibilities to what one knows a priori. Ordinarily, the hypothesis that I am a knowledgeless creature isn't relevant and thus doesn't need to be eliminated—not even if I am aware of the fact that I know a priori that p implies the falsity of I lack any knowledge states. So there are circumstances where I can know a priori what I know—the specific contents of my knowledge states—without knowing a priori that I know—the fact that my alleged knowledge states are not in fact contentless. A priori knowledge of the contents of my knowledge states is often consistent with my lacking the ability to rule out, via reflection, the possibility that I don't have any knowledge states.<sup>27</sup>

An analogy might help to better understand the relation between knowing what one knows and knowing that one knows. Consider Bertrand Russell's famous skeptical question about the past (1921: 159): how do you know that the whole world, with all its records and apparent memories, didn't spring into existence just five minutes ago? Obviously, I can only remember what occurred in the past, if there is a past. But how do I know that there is a past? Russell's point is that this cannot be known by means of memory. My memory only provides me with knowledge about past events, if there is a past. But that there is a past is not something I can know on the basis of remembering.

<sup>&</sup>lt;sup>27</sup> In (2000: 11–16) I argue that McKinsey-style anti-solipsist arguments from representationalism erroneously assume that a priori knowledge *that* one is thinking is derivable from a priori knowledge of *what* one is thinking.

It is something I know to be implied by the events I remember, but it is not itself something I can remember. Given representationalism, a priori knowledge of the contents of one's knowledge states is structurally similar to memory knowledge. To be able to know a priori what my knowledge states are about I need to have knowledge states. But I don't have a priori knowledge regarding the fact that I have knowledge states and that I am not an unknowing zombie. Reflection provides me with knowledge of what is in my mind, but not with knowledge that I have a mind.

Holding on to knowledge of the contents of my knowledge states, while acknowledging the inability to know that I am not an unknowing zombie, crucially depends on the zombie-possibility being irrelevant. A critic might question, however, whether this possibility is in fact irrelevant. One might think that, once representationalism is brought into the discussion, the possibility that I am an unknowing zombie becomes relevant. And when this counter-possibility is relevant, then, according to my own lights, it needs to be eliminated for me to be able to know the contents of my knowledge states; or so the critic argues.

The problem with this line of criticism is that it concedes too much to the skeptic by assuming that an alternative can become relevant simply by someone paying attention to it. If a counter-possibility were relevant as soon as someone pays attention to it the skeptic would win hands down by having us consider various possibilities that we typically (and properly) ignore and that our evidence fails to eliminate. According to a more plausible conception of the relevant-alternative view, the relevance of a counter-possibility has to do both with subjective and objective features. If an agent fails to consider an alternative that is very likely, objectively speaking, he doesn't know because it is a lucky coincidence that the counter-possibility isn't actual and because knowledge is non-accidentally true belief. And if an agent doesn't take into account some of the subjective possibilities, he fails to meet the justification condition for knowledge. Thus an alternative is relevant when the objective probability of its realization is high and when it is pertinent to the subject's conversational context.

In conclusion, we have seen that, given the representational theory of mind, one cannot know a priori that one knows that p as opposed to being incapable of having any knowledge states. But provided one is capable of having knowledge states, one can know a priori that one knows that p as opposed to some other proposition q.

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