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**Disbelieving The Sceptics
Without Proving Them Wrong**

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Disbelieving the sceptics without proving them wrong

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Comments and criticism very welcome

Abstract

It is true of many truths that I do not believe them. It is equally true, however, that I cannot rationally assert of any such truth both that it is true and that I do not believe it. To explain why this is so, I will distinguish absence of belief from disbelief and argue that an assertion of “ p , but I do not believe that p ” is paradoxical because it is indefensible, i.e. for reasons internal to it unable to convince. A closer examination of the irrationality involved will show that such is the skeptic’s predicament, trying to convince us to bracket knowledge claims we have good grounds to take ourselves to be entitled to. Even if the sceptic cannot be proven wrong, his challenge still demands an answer, if not a treatment. In this paper, I argue that the cure lies in epidemiology rather than epistemology: instead of attacking the sceptic head-long, I commend guerilla tactics, vaccinating our fellow non-sceptics against the sceptical virus. I will not argue that the sceptic is wrong, necessarily wrong or that he cannot be believed, but that he cannot convince. Scepticism requires a leap of faith: something we may justifiably refrain from even on the sceptic’s own standards.

I Moore’s paradox and pragmatic indefensibility

The puzzle of ‘Moore’s paradox’, as I understand it, is to explain why the following sentence, while true for many values of p , is inappropriate to assert (Moore 1912: 78):

(1) p , but I do not believe that p

I will discuss two approaches to the puzzle which identify conversational maxims they take to be flouted by (1), criticise them and then present an alternative solution. The problem these diagnoses address is how to derive a contradiction from the claim that (1) is asserted, believed or entertained, i.e. to identify the pragmatic maxims and theoretical assumptions violated by such an assertion, belief, or act of entertaining.

What I will call the *belief approach*, exemplified by Hintikka (1962: 67), takes (1) to violate the maxim that one should believe what one asserts and then argues that (1) is unbelievable. To

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do this, it is argued that to believe a conjunction is to believe its conjuncts and that believing that one does not believe that p entails that one does not believe that p , i.e. that it is not possible to err about what one fails to believe (Hintikka 1962: 24).¹ If I believe (1), then, I believe that p and at the same time I believe that I do not believe that p , hence, by the ‘veridicality of negative introspection’, I do not in fact believe that p . In asserting (1), then, I assert something I cannot rationally believe and therefore act in a less than completely rational way.

What I will call the *knowledge approach* takes (1) to violate the ‘knowledge rule’ of assertion (Williamson 2000: 243), that one should only assert what one knows² and then argues that (1) is unknowable, on the assumption that I know a conjunction only if I know its conjuncts. If I know (1), then, I know that p and I know that I do not believe that p . Because knowing implies believing and by the factivity of knowledge, I hence both believe and do not believe that p , which is impossible (Williamson 2000: 254).

Both approaches have problems. After having sketched what I take to be their major ones, I will argue that the paradoxicality of (1) lies in its *indefensibility* and hence give a dialectical rather than purely pragmatic analysis of Moore’s paradox. (1) is indefensible, I will argue, because any attempt to defend the claim made by it against an opponent contradicting p undermines whatever justification one might have had to assert “I do not believe that p ” in the first place.³

The belief approach is committed to the claim that it is improper to falsely assert that one lacks a belief. But it seems clearly possible to believe that one lacks beliefs one in fact has. Just think of superstitions, prejudices and racial stereotypes, not to speak of unconscious beliefs. And such beliefs may be expressed with assertoric force. Even if we grant that we know of what we believe that we believe it,⁴ this gives us only contradicting beliefs about one’s own beliefs on the part of someone who asserts (1), which certainly is not enough to make the assertion improper.⁵

Another, related problem is that the belief approach is unable to explain – by itself –⁶ why we do not only find (1) improper to assert, but (2) as well (cf. Williamson 2000: 253):

(2) p , but I do not know that p

If for an assertion of (2) to be appropriate, I merely have to believe it, then it only follows that I have contradictory beliefs about my knowledge if believing that p entails believing that one knows that p . This principle, however, is itself of dubious standing as the paradox of the preface shows.⁷

¹This principle is a theorem of KD4 and hence of S4.

²The knowledge rule has also been defended by Recanati (1987: 183).

³Hintikka (1962: 72) argues for the unbelievability of (1) from its doxastic indefensibility. I accept the premiss, but reject the analysis of belief that makes the transition valid. By calling my account ‘dialectical’, I do not mean to imply that only public utterances of (1) are paradoxical – any use of (1) as a premise in practical or theoretical reasoning counts as dialectical in the sense intended.

⁴This principle has been defended e.g. by Halpern (1996: 487). That it carries substantial rationality presuppositions is shown by a quote of the present US president: “I know what I believe. I will continue to articulate what I believe and what I believe – I believe what I believe is right.” (Rome, July 22, 2001)

⁵If someone believes (1) he knows, on this account, that he believes that p and hence believes that he believes that p , while he also believes the second conjunct, i.e. that he does not believe that p . So he has contradictory belief which, however, is not enough to make him irrational.

⁶This qualification is important: Hintikka (1962: 78–79) explains the unknowability of (2) by the S4-principle for knowledge. But this means giving a *different* account, basically Williamson’s.

⁷The paradox of the preface shows that it may be rational to think that at least one of one’s own knowledge claims is false, as it may be rational to excuse oneself, in the preface, for one’s errors in the book, thereby implying

The paradoxicality of (2) is elegantly explained by the knowledge approach.⁸ A proper assertion of (2) would entail that I know that p and know that I do not know that p – which, knowledge being factive, is impossible. The knowledge approach has problems, however, with a different aspect of (1): not only is its assertion improper but it is also irrational to believe it. The standard reply to this worry is that knowledge sets the standard of appropriateness not only for assertion but also for belief (Williamson 2000: 47, 256). But if believing that p is to treat p as if one knew that p , then surely there is *some* mental state involving p that is not governed by the norms of knowledge. Let us call this mental state “entertaining”.⁹ Consider now the following assertion:

(3) p , but I do not entertain (the thought) that p

(3) seems even more improper than (1) or (2) and the knowledge approach seems unable to explain this, for knowing that p does not imply entertaining that p .¹⁰ Neither is it true in general that asserting implies entertaining. Assertions may be deferred and hence be made at different times than when the asserting sentences are uttered.¹¹ In such cases, the knowledge rule has to apply at the time of the assertion, of which I may know at the time of utterance that I do not then have any occurrent thoughts at all (because I am sleeping or dead, for example). The case is even clearer when (3) is merely entertained, mere entertainment not being governed by the knowledge rule at all. Such cases strike us, I assume, as equally puzzling than assertions of (1) and the knowledge approach does not seem to have the resources to explain our sense of puzzlement. If we combine it with the ‘belief rule’ (that one should believe what one asserts, believes or entertains), however, it forces us to rely on the dubious premise of the belief approach that negative introspection is infallible.

I would like to develop an account of the paradoxicality of (1) that presupposes only that one should believe what one asserts and does not rely on the dubious principle that one cannot have false beliefs about what beliefs one lacks. To do so, we need a distinction between absence of belief and disbelief.

that there are some. One believes all the claims one makes in the book, but the remark in the preface shows that one does not think one knows them all. Dretske (1971: 21) even denies that *knowing* that p entails believing that one knows that p : “We naturally expect of one who knows that P that he believes that he knows, just as we expect of someone who is riding a bicycle that he believe he is riding one, but in neither case is the belief a *necessary* accompaniment.”

⁸This is even acknowledged by Hintikka who, in order to explain the inappropriateness of (2), appeals to something like Williamson’s knowledge rule of assertion, though he considerably weakens it: “When somebody makes a statement [...] we are normally led to expect that he can conceivably know that what he is saying is true or that he is at least not depriving himself of this possibility by the very form of words he is using.” (Hintikka 1962: 78). Hintikka has, however, a much more internalist conception of what it takes to be a norm of assertion than Williamson. Cf.: “It cannot very well be a presupposition of the notion of honest assertion that the speaker knows what he says; one may be honestly mistaken.” (Hintikka 1962: 97)

⁹Entertaining is different from opining in that only the latter is supposed to capture whatever else than knowledge is needed for a disjunctive definition of belief (Williamson 2000: 46).

¹⁰Instead, it gets the hierarchy wrong: (2) is most directly classified as inappropriate, (1) indirectly via the route from knowledge to belief and (3) via a dubious connection between knowledge and entertaining. It seems to me, though, that (3) is the most paradoxical of all three sentences considered.

¹¹Such cases have been widely studied in the literature on indexicals: think of post-it notes on your office door saying “I am not here now”, messages on answer-machines and so on.

2 Belief and disbelief

For any proposition p , to believe that p is to take the actual world to be a possible world where p is true.¹² Some possible worlds are, given what we take ourselves to know, ways the actual world might be; they correspond to informational states in which some of (what we take to be) our ignorance is remedied, ways of filling up gaps in (what we take to be) our knowledge.

What we take ourselves to know, however, is what we believe: Williamson, I think, is right that belief is governed, in this sense, by the norm of knowledge. This is why I call such informational states *doxastic alternatives* (for some agent at a time). Not all doxastic alternatives are possible worlds: sometimes we think we know propositions which in fact are impossible.¹³ Nor do I take the valuation to be total: doxastic alternatives typically do not decide all issues. On the model sketched here, we may be ignorant of necessary and of a priori truths (and even know that we are).¹⁴

To believe p is for p to be true in all one's doxastic alternatives; it is to answer "yes" to both the question whether p and the question whether one believes that p . Not every failure to believe, however, is a case of disbelief: disbelief is an epistemic attitude, albeit a negative one, and there may be many propositions to which I have no epistemic attitudes at all. To disbelieve that p is to consider it possible that a world which verifies $\neg p$ is actual, to have a doxastic alternative in which $\neg p$ is true; it is to answer a firm and non-reflective "no" or "of course not" to the question whether p (as opposed to the deliberation of whether you should believe it or not and making up your mind on the matter). Disbelief that p , then, is stronger than mere lack of belief. It is weaker, however, than belief that $\neg p$.¹⁵ To believe that $\neg p$, all of one's doxastic alternatives have to make p false (i.e. $\neg p$ true); to disbelieve that p , one doxastic alternative in which $\neg p$ is true suffices.

To see the difference between the belief that $\neg p$ and the disbelief that p , consider the following: Whenever someone asks me whether I believe that p , there are two ways of giving a negative answer: merely stating my lack of belief, as in "no, I never thought about that", and expressing a negative epistemic attitude to the proposition that p , as in "no, of course not, that would be idiotic". This negative attitude, however, may itself be of two kinds, distinguished by different commitments. Suppose now someone asks me a second question, namely whether p . Again, there are two ways of answering in the negative: I may, first, express my belief that $\neg p$, but I may also just reject the proposal that p . It is this second way of answering "no" to " p ?" that is equivalent to the negative epistemic attitude of disbelief with respect to p . Doxastic alternatives provide a neat way of bringing out these distinctions: they allow us to distinguish between someone who incurs a commitment to $\neg p$ and someone who refrains from (and not merely lacks) a commitment to p .

¹²I use "proposition" to stand for whatever it is that may be known, believed, true and expressed by sentences. For the purposes of this paper, I individuate them up to logical equivalence.

¹³Equivalently, on the model sketched here: we believe contradictory propositions (without, in normal cases, realising that we do so).

¹⁴Neither do I assume that any agent in any world either believes or disbelieves a given proposition: there might be worlds, e.g. those in which a does not exist or those in which a lacks the relevant concepts, where a neither believes nor disbelieves that p . Neither do I see a reason why a should not be able to consider such worlds to be doxastic alternatives.

¹⁵Some terminological regimentation is involved here. For a different use of the word, cf. e.g. Price (1983: 171) according to whom "to believe that S is to be disposed to act as if S , whenever one thinks it makes a difference whether S " and "to disbelieve that S is to be disposed to act on the assumption that not- S – that is to ignore the possibility that S – whenever one thinks it makes a difference to the outcome of one's actions whether S ".

Though disbelief is distinguished from lack of belief by its being an occurrent epistemic attitude, it may also be construed dispositionally: Disbelieving that p is to have the disposition to refrain from acting on p , which is not equivalent to and weaker than the disposition to act on the falsity of p – but stronger as lacking any disposition with respect to p altogether. Suppose the waiter brings me a dish x I did not order. It seems true to say that at the time of ordering my dish, I did not want to eat x (today). This absence of a pro-attitude may be of two sorts, however: it may be a mere absence, or an absence due to the presence of a contra-attitude. In the first, but not the second case, I can cleave to my former preferences by taking the dish.

The notion of disbelief is needed to account for agnosticism: the typical agnostic, e.g. with respect to religious matters, is not just open-minded (lacking both the belief that p and the belief that $\neg p$), but he is not committed to dialetheism (believing both that $\neg p$ and that $\neg(\neg p)$). Agnosticism with respect to p , instead, is an epistemic attitude characterised by disbelief that p and disbelief that $\neg p$ – this is why agnostics typically have arguments for their position that have to be overthrown to convince them of either p or $\neg p$: they have doxastic alternatives to be ruled out by argument.

Disbelief, in my view, is what underlies truly ‘rejective’ negation. This is not, however, the use of this word that became prevalent in recent discussions (cf. Rumfitt (2000) and Hummerstone (2000)). Like Frege¹⁶ and Dummett,¹⁷ Rumfitt treats rejection and holding-false as equivalent:

On the bilateral conception [the one Rumfitt advocates], a speaker is entitled to affirm a sentence’s negation precisely when he is entitled to reject the sentence itself. (Rumfitt 2000: 818, cf. also 814)¹⁸

“Rejecting the sentence” here means answering negatively the question whether the sentence is true, in the sense in which this expresses belief in its negation. The issue is somehow complicated by the fact that for Dummett, Rumfitt’s main target, it is correct to ‘reject’ (deny) A iff it is correct to assert $\neg A$ iff it is correct to assert that A is not assertible. It is only on the premiss of the second equivalence that Rumfitt denies the right-to-left direction of the first: he disagrees with Dummett on whether if it is incorrect to assert A , then it is correct to reject A .¹⁹ Because Rumfitt concedes that if it is correct to reject A , then it is correct to assert that $\neg A$, and that the latter implies that A is false, he has to claim that it may be incorrect to assert A even if it is not the case that A is false; i.e., accepting bivalence, that falsity is not sufficient for correct ‘rejection’ (denial) and hence that the intuitionist is wrong in construing an assertion of $\neg A$ as warranted iff the assertion is warranted that nobody will

¹⁶Cf. in the early *Logik*: “In asking a yes-or-no question we are wavering between opposite sentences. [...] This opposition or conflict is to be understood in such a way that we *ipso facto* reject one limb as false when we accept the other as true, and conversely. The rejection of the one and the acceptance of the other are one and the same.” (Frege 1879–1891)

¹⁷Cf.: “...the answer ‘No’ is precisely tantamount to, and is best analysed as, an assertion of the negation of the sentence uttered in interrogative form” (Dummett 1973: 425).

¹⁸Consequently, Rumfitt’s system has it that $\vdash(\neg A) \dashv\vdash \vdash A$ (where $\ulcorner A \urcorner$ represents the assertion of A and $\ulcorner \neg A \urcorner$ its rejection, or “denial”, as Dummett (2002: 290) – and subsequently (Rumfitt 2002) – prefer to call it).

¹⁹Cf.: “What he [Rumfitt] disputes, and I [Dummett] have maintained, is that the negation of a sentence may be asserted – or the sentence denied – just in case we have good reason to judge that it would be objectively incorrect to assert that sentence.” (Dummett 2002: 291) The example Rumfitt (2000: 818) gave of such a sentence was “Elizabeth I was bald when she died” in the situation where all documentary evidence pertinent to her person has been (and is known to have been) collected and destroyed. Dummett (2002: 292) denies that this is a counterexample: “We are surely in no position to deny that *there ever have been* grounds for asserting the sentence [...], and are therefore not [...] in a position to deny that sentence.” But just suppose we were (being told so by God, say): plainly, this would not, by itself, justify an anti-realist about the past in asserting the negation (and this was Rumfitt’s original point).

ever be in a position to make a warranted affirmation of A .²⁰

I want to claim, however, that it may be correct to reject that p even if it is not correct to assert that $\neg p$, precisely because ‘rejection’, as opposed to denial, is best construed as a manifestation of disbelief. This does not mean that I deny the shared premiss of both Dummett and Rumfitt that there are no conditional assertions, i.e. that assertions are either correct or incorrect. It is just to claim that a rejection of p is not equivalent to, and hence not to be construed as, an assertion of $\neg p$.²¹ Its ‘assertoric’ force may be weaker.

A doxastic alternative for a at t , then, is a way the world might be a cannot exclude at t to be a way the world actually is.²² If a believes that p , all his doxastic alternatives make p true; if he disbelieves p , one of his doxastic alternatives makes p false, i.e. makes $\neg p$ true. We now have the following dual pair of epistemic notions, where “Bp” abbreviates “ a believes that p ”, “Dp” stands for disbelief and “DA” for the relation of doxastic alternativeness with respect to a and t :

$$(4) \quad w \models Bp \quad :\Longleftrightarrow \quad \forall v(wDAv \rightarrow v \models p)$$

$$(5) \quad w \models Dp \quad :\Longleftrightarrow \quad \exists v(wDAv \wedge v \models \neg p)$$

As argued above, I understand disbelief in p as an epistemic attitude which is, in normal cases, intermediate in strength between mere lack of belief and belief in the negation. If one even believes both p and $\neg p$, all of one’s doxastic alternatives are contradictory. Disbelieving that p entails not believing that p if the relevant doxastic alternative is not contradictory. For the entailment from failing to believe that p to disbelieving that p , however, something much more stronger is needed, namely that the relevant doxastic alternative makes p false if it does not make it true. Failing to disbelieve $\neg p$ is to have only doxastic alternatives which do not make p true, i.e. being open-minded about the truth of p . Failing to disbelieve that $\neg p$ is the sharpest contrast to believing that p and means that one has no doxastic alternatives, i.e. that there is no way in which one’s belief state could be made true compatible with what one takes oneself to know: it is to answer both “yes” to the question whether p and fail to answer “no” to the question whether $\neg p$. Believing and disbelieving that p (answering both “yes” and “no” to the question whether p), on the other hand, means that one has a doxastic alternative, though a contradictory one. This shows that doxastic alternativeness is a highly intensional notion, expressing not more than what a *takes to be* the relevant scenarios to consider. Even

²⁰It is precisely *because* he construes denying a sentence as asserting its negation that Rumfitt claims that “[c]onfronted with the question ‘Is it the case that A ?’, an adherent of the bilateral conception will insist upon distinguishing between the responses ‘There are no grounds for answering affirmatively’ and ‘No’” (Rumfitt 2000: 798), and that there are fields of inquiry where “there are now, never have been and never will be grounds for answering affirmatively” is weaker than “no” and which therefore sustain a “genuinely bilateral conception of sense” and favour classical over intuitionistic logic (Rumfitt 2000: 817). Only if the falsity of a sentence is then identified with its being correct to deny it, we get the paradoxical result that classical logic is correct in areas of discourse in which bivalence fails (cf. Dummett 2002: 293).

²¹This, I think, is needed to meet the challenge set up by Humberstone (2000: 368), namely “to show how the claim for the conceptual priority of rejection over negation is any more plausible than the corresponding claim for the conceptual priority of alteration [a speech-act whose propositional objects are two disjuncts and which expresses a ‘disjunctive attitude’ with respect to two propositions] over disjunction”.

²²I assume that the only way to exclude some world from the realm of informational states in which some of our ignorance is remedied is by self-ascribing some putative pieces of knowledge that fail to be true in that world. Some care is needed here, however: we may (rightly and justifiedly) take ourselves to be ignorant about many things and thus there had better be some doxastic alternatives where our first-level ignorance is remedied and we therefore lack the second-order bit of knowledge. This may be assured in different ways, e.g. either by restricting the claim to first-order knowledge or to time-index the knowledge claim (such that it is not *that* bit of knowledge we later lack, for it only concerned what we knew at the other world and the earlier time). I thank Timothy Williamson for having me made aware of this.

if a 's belief set is inconsistent and he thus has doxastic alternatives which both verify and falsify some proposition, we cannot attribute him any belief whatsoever: to do this, he must positively fail to grasp the force of the negation.²³

3 Pragmatic indefensibility

How does this machinery help us with (1)? If we construed doxastic alternativeness as a transitive relation, it would be straightforward to show that Moore's paradox is unbelievable.²⁴ This was essentially the solution given by Hintikka's S4-logic for knowledge and belief, construed in terms of defensibility of belief sets and satisfying the following principle of positive introspection:

$$(4) \vdash Bp \rightarrow BBp$$

(4) seems implausible for reasons already mentioned: superstitions, prejudices, unconscious, externalistic and essentially indexical beliefs. Another reason against it is the following: if it were adopted, it would be quite difficult to resist the temptation of giving a similar account of knowledge. Justification, after all, is transitive and it seems difficult to see what would block (4) for knowledge other than lack of the relevant belief. And I take it that (4) is extremely implausible for knowledge.²⁵

A diagnosis of (1) in terms of the transitivity of doxastic alternativeness has a further draw-

²³If the agent both believes p and believes $\neg p$, *all* his doxastic alternatives will be contradictory, if he has any. Only if he does *not* have any, i.e. if he answers not only "yes" both to p ? and $\neg p$? but also fails to answer "no" to the second question, thereby showing that he failed to understand that he is contradicting himself, may we safely take him to be irrational (think of someone who answers not only both "yes" and "no" to the question whether God is immortal but also refrains from answering "no" to the question whether he is mortal – we may well wonder whether he understood what "immortal" means). Though believing p to be false (believing that $\neg p$) is stronger than failing to disbelieve $\neg p$, belief in p and failing to disbelieve $\neg p$ is a stronger form of irrationality than both believing p and believing $\neg p$. The connection between belief and disbelief in the negation is internal and constitutive, while both belief in p and in its negation may be independently justified. Disbelieving both p and $\neg p$, in contrast, is entirely unproblematic and just requires doxastic alternatives verifying p and (possibly different) doxastic alternatives falsifying p .

²⁴Assume there is a possible world w where a believes that p and that a does not believe that p : $w \models B(p \wedge \neg Bp)$. Assume there is a doxastic alternative v for a in w ($wDAv$). Then $v \models p \wedge \neg Bp$. Because of the second conjunct, there is an doxastic alternative u for a in v such that $u \models \neg p$. By transitivity, u is also a doxastic alternative for a in w . Hence $u \models p$, which is impossible. So a has no doxastic alternatives in w , that is, may safely be taken to be irrational.

²⁵The strongest argument against (4) in the case of knowledge, I think, is the simple fact that knowledge may supervene on factors unknown to the agent: Suppose that whether or not I have knowledge of the truth that p depends on the obtaining of some external factors r (i.e. a reliable connection between my belief and the fact that p , the trustworthiness of my conversational partner, the actual absence of other possibly misleading evidence, subjunctive conditionals connecting my believing and not-believing that p with p and $\neg p$ respectively, or what have you) such that, if r were not the case, I would not know that p . It is enough, then, for my knowing that p that r obtains – I do not have to know that it obtains. In order to know that I know that p , however, I have to rule out that $\neg r$, which, in many cases at least, demands for a different type of cognitive effort than establishing whether p . An especially vivid case is where I even lack the concepts or linguistic resources to express r : it seems not clear, in this case, how I might be able to rule out that $\neg r$, even while I do not have to articulate the background conditions on which may ordinary, first-level knowledge claims depend. Timothy (Williamson 2000: 13, 95) frames the point in terms of luminosity, where a mental state is luminous iff whenever it obtains, one is in a position to know that it obtains. Knowledge is not luminous and hence (4) fails, according to (Williamson 2000: 107), because it can be gained or loosed gradually, without the subject being able to draw a clear-cut line along the slippery slope: that is why knowledge requires "margins for error", inside which (4) fails. Transitivity is one of the respects in which information, "travelling at the speed of logic", most perspicuously differs from "genuine knowledge [which] only travels at the speed of cognition and inference." Barwise (1988: 204). Transitivity of information flow has been taken as axiomatic by Dretske (1981: 57): "I take this [the Xerox principle, i.e. transitivity of information flow] to be a regulative principle, something inherent in and essential to the ordinary idea of information, something that any *theory* of information should preserve. For if one can learn from A that B , and one can learn from B that C , then one should be *able* to learn from A that C (whether one *does* learn it or not is another matter)."

back. What makes the indefensibility of (1) paradoxical is not only that we know that, for any p , it might be true and for most of the true p 's of our language it actually *is* true. It also is paradoxical because there does not seem anything wrong with ascribing lack of belief in a true proposition *to someone else* or to oneself *with respect to some other time than the present*. Using transitivity to show that Moore's paradox is unbelievable *tout court*, either misses this feature or bars us from many interesting applications:²⁶ the doxastic alternatives to consider typically lie in our future; the doxastic agents we have beliefs about are typically not ourselves, though we may become them if we upgrade things we believe to things of which we believe that we know them.²⁷

Jaakko Hintikka argued for (4) as an axiom of knowledge on the basis of his peculiar semantics given in terms of defensibility (consistency) of belief sets:

That q is the case can be compatible with everything a certain person – let us assume that he is referred to by a – knows only if it cannot be used as an argument to overthrow any true statement of the form “ a knows that p .” Now this statement can be criticised in two ways. One may either try to show that p is not in fact true or else try to show that the person referred to by a is not in a position or condition to know that it is true. In order to be compatible with everything he knows, q therefore has to be compatible not only with every p which is known to him but also with the truth of all the true statements of the form “ a knows that p .” (Hintikka 1962: 18)²⁸

The idea, in a nutshell, is that I only know something if its truth is not excluded by what I know nor by my knowing what I know. This is based on the observation that explicit self-ascription of knowledge is a particularly strong form of endorsing a claim:

I am not in a position to say “I know” unless my grounds for saying so are such that they give me the right to disregard any further evidence or information. (Hintikka 1962: 20)

This argument from our dialectical entitlement to knowledge claims²⁹ is inconclusive, however. It may be defended (at least by Hintikka-style arguments) only in contexts where the “absurdity” correlated to an indefensible belief set is understood in performatory terms.³⁰ This performatory aspect of knowledge claims, however, is cancellable and applies only to

²⁶Hintikka only considers statements made on one and the same occasion and presupposes that the person referred to by “ a ” in the index of the knowledge operator knows that he is being referred to by “ a ” (Hintikka 1962: 106) – a piece of knowledge that cannot itself be modelled within the system.

²⁷This is not the only way a doxastic alternative may become actual, of course: any change in what I take myself to know defines a new doxastic alternative.

²⁸He had an ancillary argument for transitivity, based on the observation that “knowing” and “knowing that one knows” are often used interchangeably in ordinary language – or, at least, that their “basic meanings” as captured by an explanatory model are the same (cf. Hintikka 1968: 8).

²⁹Hintikka sometimes also puts the point in terms of justification: “In the primary sense of *know*, if one knows one *ipso facto* knows that one knows. For exactly the same circumstances would justify one's saying “I know that I know” as would justify one's saying “I know” *simpliciter*.” (Hintikka 1962: 28, cf. also 111)

³⁰Hintikka is clear on this point: “The absurdity of doxastically indefensible sentences is of *performatory character*; it is due to doing something rather than to the means (to the sentence) which is employed for the purpose.” (Hintikka 1962: 77) He calls transitivity also “the quasi-performatory aspect of the verb *know*” (Hintikka 1962: 55) and repeatedly stressed this point in subsequent discussions: “[...] for someone to know that p his evidence [...] has [...] not only to be good but as good as it [...] can be. It has to be such that further inquiry loses its point (in fact, although it is logically possible that such an inquiry might make a difference). The concept of knowledge is in this sense a ‘discussion-stopper’. It stops the further questions that otherwise could have been raised without contradicting the speaker.” (Hintikka 1968: 13)

first-person utterances. Whenever we are interested in modelling the epistemic behaviour of (real or idealised) agents, such considerations are inapplicable. This is why (4) is not an axiom we should adopt in our logic of knowledge or belief.

Hintikka's considerations mooted above, however, point to an important feature of self-ascriptions of belief or knowledge. Whenever we say of ourselves that we believe that p , we incur a commitment to the truth that p – we claim that the real actual world (not only the one we take to be the actual world) is among our doxastic alternatives. Whenever we learn further truths and acquire true beliefs, we narrow down the range of alternatives, hopefully to an ideal limit where the actual world would be our only last alternative left and we would believe some proposition iff it is true.³¹ A self-ascription of knowledge or belief is a claim to the effect that we are prepared to use some proposition as a premise in this process of narrowing down the realm of what is left open by what we take ourselves to know. A crucial feature of beliefs we claim to have, then, is that they must be entertainable in worlds which are their only doxastic alternative. Any proposition that cannot be believed in such a world immediately disqualifies from the dialectic role conferred to it by an act of self-ascribing belief in it.

What lies at the bottom of indefensibility of (1) is not the transitivity of doxastic alternative-ness but the commonly made presupposition that what one says might be true even if the real actual world were one's only doxastic alternative. If I assert that p , I thereby commit myself to the claim that p might be true even if everything I believe would count as knowledge – and this requires that the actual world is among my doxastic alternatives.³² If you assert p , you must consider it possible that you would believe p even if you had a maximally specific belief set, i.e. if you would believe all the (non-epistemic) truths (or, equivalently, disbelieve the infinite conjunction of all the (non-epistemic) falsehoods).

This maxim allows us to bring out the indefensibility of (1). If the world in which we believe (1) were our only doxastic alternative, belief in (1) would make that world inaccessible to us. A belief in (1) makes the world in which it is held either doxastically inaccessible to itself or contradictory. Therefore, (1) cannot be rationally believed in 'reflexive' worlds, i.e. worlds w such that $wDAw$.³³ How dramatic is this?

To answer this question, we have to distinguish between two sorts of epistemic possibility, corresponding to an externalist and an internalist reading of the phrase "the actual world" in "a way the actual world could have been (given what we know about it)". According to its externalist interpretation, anything which is compatible with our knowledge and hence might be, for all we know, a world we happen to inhabit qualifies as an epistemic possibility. Anything we cannot rule on the basis of what we know about *this* world is possible in this first sense, even if it would preclude this world's being a world we inhabit. Because there is no knowledge we are entitled to rely on when arguing with (that is, against) the skeptic, any not obviously self-contradictory scenario will qualify as a way the actual world could have been, taking the latter in its referential sense. An internalist reading, however, demands more: to

³¹ Again, this has to be restricted to non-epistemic propositions. Even then, however, it may be questioned whether ideal believers at the limit of inquiry should believe that they were ideal believers at the limit of inquiry. These matters, interesting as they are, are orthogonal to my purposes here: all I need is that it is irrational to exclude the real actual world from one's doxastic alternatives, whatever is the best way of spelling out the epistemic norms at work here.

³² Something along this line was Hintikka's original justification for the transitivity of his belief relation: "If something is compatible with everything you believe, then it must be possible for this something to turn out to be the case together with everything you believe without making it necessary for you to give up any of your beliefs. If your beliefs are to be consistent, it must also be possible for all your beliefs to turn out to be true without forcing you to give up any of them." (Hintikka 1962: 24)

³³ Suppose $w \models B(p \wedge \neg Bp)$ and $wDAw$. Because of $w \models B\neg Bp$, $w \models \neg Bp$. But the first conjunct becomes $w \models Bp$, so w is contradictory.

be epistemically possible in this second way, a possible world not only has to be one of which we do not know that it is not ours, but more, namely one which we could *take to be* our actual world. For a skeptical scenario to depict a possible world in this second sense, then, is for it to be such that it could, in principle, be taken to describe our actual world. For this it has to be compatible not just with what we know, but with what we take ourselves to know. This distinction, between what we may call *merely possible* and *possibly actual* worlds, will turn out crucial in the following.

I tried to capture the intended internalist reading by relativising doxastic alternatives to what an epistemic agent *takes* himself to know and by requiring that a rational agent should have self-accessible doxastic alternatives. Claims which are true only in possible worlds which are not possibly actual are plausibly taken to be *indefensible* because they cannot convince anyone who does not believe them already: it is only by a leap of faith that you can come to believe them to be actual. For to take them to be possibly actual *is* to take them to be doxastic states one rationally actually might be – states which are compatible with what is taken to be true in them.

Taking a doxastic alternative to be possibly actual as opposed to just merely possible, then, means taking it to be doxastically accessible to itself. So no one can take a doxastic alternative in which (1) is true to be a possible way *his* actual world, the world of the believer, might be. This is what is paradoxical about the Moore-paradoxical sentence (1): that it cannot, on pain of contradiction, be believed in worlds which are doxastic alternatives of themselves.³⁴

It is instructive to compare (1) to the following more explicit version:

(6) I believe that p , but I do not disbelieve that $\neg p$.

As was said before, asserting (6) amounts to the avowal that one's belief set is inconsistent. (6) can be believed only in worlds which have only worlds as doxastic alternatives which themselves have no doxastic alternatives.³⁵ (6) is a stronger assertion than (1), for not every sentence which I non-contradictorily fail to believe I automatically disbelieve. If I non-contradictorily disbelieve something, however, I fail to believe it.

Another case is the following:

(7) p , but I do not disbelieve that $\neg p$.

(7) can only be believed in worlds which only have doxastic alternatives that are doxastically inaccessible to themselves.³⁶ The pragmatic maxim violated by an utterance of (7) is not, as in the case of Moore's paradox, that one should believe what one says but something weaker, i.e. that one should disbelieve what one believes to be false. It is thus unbelievable or unassertable in a stronger sense than the Moore-paradoxical sentence (1). The believer in (7) cannot take the world he takes to be actual (and therefore accessible to itself) to be one of its doxastic alternatives, not even, as in the case of (1), at the price of acknowledging that it is contradictory. He cannot take any world to be its doxastic alternative without foresaking that it may be possibly actual (for if it *were* actual, he could not take it to be actual, for he would then have a doxastic alternative which is accessible to itself). I think it is this feature

³⁴This diagnosis equally applies to (2) and (3). In the latter case, this is due to the fact that at the ideal end of inquiry you would entertain all and only the true of the non-epistemic propositions.

³⁵Suppose that $w \models B(Bp \wedge \neg D\neg p)$ and there is a v such that $wDAv$. Then $v \models Bp$ and $v \models \neg D\neg p$. If $vDAu$, then $u \models p$ and $u \not\models p$, which is impossible.

³⁶Suppose that $w \models B(p \wedge \neg D\neg p)$ and there is a v such that $wDAv$. Then $v \models p$ and $v \models \neg D\neg p$. If $vDAv$, then $v \not\models p$ which is impossible.

of (7) that explains our being bemazed by an assertion of (1), for we naturally interpret an assertion of lack of belief as an assertion of disbelief.

4 Disbelieving the skeptic without proving him wrong

I think that this interpretation of (7) helps us tackle what I still take to be the main problem of epistemology: not whether the skeptic is right but why he is wrong. Skepticism seems to have found its niche in philosophical multiculturalism. While still unfashionable, it has become tolerated, or rather ignored. I think skeptics earn better than that. Even given that they cannot be proved wrong, their challenge still demands an answer, or rather a treatment. I will argue that the cure to skepticism lies in epidemiology rather than epistemology: instead of attacking the skeptic head-long, I commend vaccinating our fellow non-skeptics against the virus. The way to go is not to argue that the skeptic is wrong, necessarily wrong or that he cannot be believed, but to show that he cannot *convince*. Skepticism requires a leap of faith: something we may justifiably refrain from even on the skeptic's own standards – or so I want to argue.

There are very few skeptics. The importance of skepticism to epistemology is not due to its popularity. Instead, epistemologists cherish skepticism because it provides a convenient setting to many important epistemological questions and a challenge to some of their most popular answers. The issue of skepticism, then, is not so much the question whether the skeptic is right, but *why he is wrong*. So let us assume, at least for the purposes of this paper, that *we* know that the skeptic is wrong and set us the task to explain and defend our entitlement to this knowledge claim.

Skeptics are not very good at mounting positive claims. Instead, they ask questions. I take the skeptic of concern to us to be someone who believes that no one ever knows anything. As we assume him to be rational, he will not qualify this belief of his as knowledge. The skeptic thus thinks that all our beliefs that we know something are false. The question he asks us is the following: “How do you know that you know something?” By taking his question to be rhetorical, he challenges our entitlement to any knowledge claims (claims of the form “I know that *p*”) whatsoever. To meet the skeptic's challenge, we have to develop an account of knowledge that gives us the resources to defend against the skeptic the claim that we know something.

Just by knowing something, we only show *that* the skeptic is wrong. In epistemology, however, this will not do: as everywhere else in philosophy, we have to give reasons for taking our knowledge claims to be more than socially useful fictions. So it will not do to just know something, we have to know that we know it. Even this claim, however, demands for justification. To meet the skeptical challenge in full generality, then, we would have to defend something very much like the S4 axiom, i.e. we would have to show that for everything we know, we know that we know it. To do this without begging the question against the skeptic (e.g. by assuming that we have a privileged access which gives us *knowledge* about all of our knowledge) seems to me very difficult. So let us simply assume that it cannot be done.³⁷ But even if would be done somewhen in the future, it seems worthwhile to have a safe fallback position in the meantime.

The question of what to say to the skeptic lands us in a dilemma. The skeptic sketches

³⁷This perhaps prematurely pessimistic view has found some adherents in the recent discussion (cf., e.g., Stroud (1984: 20)) and seems at least not implausible on inductive grounds.

a skeptical scenario, *p*, furnishes a description of what he takes to be a possible world in which we would not know what we claim to know.³⁸ He then challenges us to explain to him why we think we are justified in excluding that scenario, i.e. to exclude its possible actuality. Given that we steadily stay non-skeptics, we have to choose between two equally uncomfortable options: either we find a hidden contradiction in what the skeptic presents as possible (which has turned out very difficult, if not impossible in many cases) or else we simply declare our psychological inability to believe him and thereby end the discussion before it even got started.

A medium between these extremes, I think, is to take skepticism to be an epidemic: a contagious superstition, which, for fear of infection, we do better to isolate than to confront directly. Such an epidemiological rather than epistemological response requires some redefinition of what it means to meet the skeptical challenge: we do not have to convince those among us who are already infected with the skeptical virus; instead, we have to prevent the skeptical disease from propagating, i.e. to detain the skeptics among us of convincing others. In order to do this, we cannot stay with our own inability to believe the skeptics: we have to justify and to explain to others why we cannot get ourselves into believing them. Our inability to waive our knowledge claims has to be argued for – in a way that *shows* (displays, not demonstrates) that it is not idiosyncratic, not prejudiced and not just a symptom of our unwillingness to consider their arguments. To meet the skeptical challenge, therefore, I have to win a three-person game: I, the antiskeptic, have to convince you, the innocent bystander, that you should not believe the skeptic who is trying to convince you of the epistemic possibility of the scenario he sketches. I have to convince you that the reasons I have for not being a skeptic carry over to your case, *if you are not a skeptic already*. Taking skepticism seriously, then, is to take it seriously as a threat. It is not necessarily trying to refute it: it is enough to show that what the skeptic takes to be possible is not possible *for the two of us*.³⁹

This strategy bears some resemblance to Harty Field's 'evaluativism', according to which "we *inevitably* believe that our own methods will be better than the dissimilar methods at leading to truths and avoiding errors" (Field 2000: 127). Evaluationism, however, is a stronger claim than the one argued for here: I do not conceive of the skeptic as proposing *different* epistemic policies but as trying to undermine our confidence in our own by asking the (supposedly unanswerable) question why we prefer it to some of the imaginable alternatives. To say that this is inevitable (according to our standards) is one, but not the only way, of saying that the only way of becoming a sceptic is by a leap of faith.

³⁸I do not take a skeptical hypothesis to be a scenario in which what we think to know is false, but one in which we do not know what we think to know (though it still may, unbeknownst to us, be true). I have three reasons for this: first, a skeptical hypothesis should describe the world as it is believed to be by a skeptic and a skeptic is not committed to the belief that the world *actually* is radically different than we take it to be, but only that our world might be so, given what we know. My second reason is historical: I believe that Cartesian skepticism (the kind of position that the protagonist of the First Meditation believes himself in) is not characterized by the actuality, but by the mere possibility of total delusion. Third, my notion is more general (for scenarios in which what we believe to know is false are scenarios in which we do not know it): I am thus making the skeptic stronger than others.

³⁹I am not claiming that this way of answering the skeptical challenge is preferable or even defensible under all circumstances. At the basis of the treatment of skepticism I am going to propose lie two brute empirical facts, one sociological and one ideological: first, there are very few skeptics (so doing without them is a viable option), second, the grimest of them are not among us, but in the madhouse. Doubting is a mental activity and can, like all mental activities, get out of control, i.e. it can acquire a causal role radically different from the one it has in most of us. A state of doubt which is insensitive enough to arguments applying at a stage posterior to the skeptical conversion qualifies as mad doubt in this sense. The skeptic who cannot, even for the sake of the argument, imagine himself being a non-skeptic, disconnects his state of doubting from its usual effect, i.e. reliance on commonly accepted procedures of finding out. I am not denying that this situation could (or perhaps even should) not be the inverse, we in the madhouse for treatment of mad confidence, they out there paying for us. Instead of trying to justify what we do anyway, I accept it as a brute fact and will try to show that and how it applies to the skeptics' case.

Some possible worlds are, given what we know, ways the actual world might be. We cannot exclude them when evaluating modal claims, for they do not contradict anything we know. Different amounts of knowledge we are allowed to take for granted give us a continuum of more and more inclusive contexts and different grades of epistemic possibility. Contextualism is the view that our notion of knowledge has to be understood relative to some such set of presuppositions we are entitled to make. What we know depends, *inter alia*, on the context we inhabit at a particular time. What is good enough for knowledge in some situations, may well fall short of it in others. The skeptics' question forces us into a rather particular context. By raising the question whether we can exclude the possibility of a particular skeptic scenario p , the skeptic forestalls our ignoring it. He questions the validity of *all* knowledge claims we happen to make, so he cannot be disproved by relying on any of them. To take him seriously, we have to bracket anything we believe to know. Contextualism then is just a way of begging the question against the skeptic. This is not as bad as it sounds, given that the skeptic cannot be refuted. Still, we should be able to do better. And we can, by showing that the skeptical question *cannot be but* begged.

5 Meeting the skeptical challenge

I want to argue that the best known scenarios skeptics and anti-skeptics have produced so far is, *for the innocent bystander to be convinced by the skeptic*, relevantly similar to the way Moore's paradox is *for us*: both of them are unable, by the very structure of their respective assertions, to produce conviction. Though they may be true and even believed to be true, the skeptic trying to convince us has to show more: he has to show that we are not epistemically required to disbelieve that they are actual. He has to show that the scenario he depicts is possibly actual, i.e. that we might take ourselves to be in it – and he has to do this without presupposing that we actually are in the unfortunate situation depicted by his scenario.

Disbelieving that p , on our account, is to have a doxastic alternative where $\neg p$. The skeptic who believes that no one ever knows something has to consider every possible world an doxastic alternative. This is clearly possible. What is not possible, however, is to convince somebody who already believes he knows something that a world like the one the skeptic takes to be actual is a doxastic alternative for him.

Assuming that the innocent bystander is not actually deluded ($\neg p$), the skeptic has to show him that he does not disbelieve he is deluded. He has to show him that he even though he *is* not deluded, he may still refrain from answering “no” if asked whether he is deluded. He has to show him how to bracket his standing belief in non-delusion without assuming that he is actually deluded, i.e. that non-delusion ($\neg p$) is compatible with failing to disbelieve that one is deluded ($\neg Dp$). So the skeptic has to convince us of (7), i.e. that we are not deluded, but at the same time do not disbelieve we are deluded. Only in this way he can overcome our cognitive resistance. But this task is hopeless.

The problem with (7) is not the inappropriateness of uttering it, but that belief in it cannot be taken to be true. The problem is that it can only be true *and* believed in worlds which are 'anti-symmetric', i.e. which are such that every doxastic alternative to them does not have them among its doxastic alternatives.⁴⁰

Because convincing others of p requires not only that you take yourself to believe p but

⁴⁰Suppose $w \models p \wedge B \neg D \neg p$. Suppose there is a v such that $wDAv$ and $vDAw$. Then $v \models \neg D \neg p$, that is $w \not\models p$ which lands us in a contradiction.

also that you convince them that they do not have to disbelieve things they already believe (though they might suspend their belief in some such things), such an argument would show that skeptics cannot convince others of skepticism. Instead of showing the skeptical scenario to be impossible, it shows that it cannot taken to be possibly actual, that it cannot be believed to be actual by someone who has not already made the leap of faith making him a skeptic. The skeptic as I have imagined him produces a skeptical scenario in which you would not know what you take yourself to know and thereby challenges your knowledge claims. Simply to show that skepticism is an uncomfortable or perhaps even impossible theoretical option does not meet this challenge, for the doubts induced by the skeptical argument may keep nagging you. An adequate answer to skepticism therefore has to be specific, explaining in detail why the skeptical scenario is not a doxastic alternative *for us*.

The local anti-symmetry of the doxastic alternativeness relation, to which belief in either (1), (6) or (7) commits me to, underlies the pragmatic indefensibility of these claims. Suppose, again, that *a*, in *w*, believes what *a* would express by uttering “*p*, but I do not believe that *p*.” If his beliefs are consistent, then there is a doxastic alternative *v* which *a* believes to be a way the actual world might be where both conjuncts of this sentence are true. In this doxastic alternative, *a* would have other beliefs than he actually has or else would have inconsistent beliefs. Does this allow him to rule out *v* as a way the actual world might be? Well, it depends. Under an externalist reading of “the actual world”, he may very well imagine it to be different with respect to the beliefs he has. Under an internalist reading, however, this is not possible. For if it were actual, he would not take it to be actual, for he would, presupposing consistency, have different beliefs about it than he actually has. In the case of (7), we may strengthen this point, for we do not have to rely on the dubious assumption of consistency, which begs the question the skeptic wants us to consider. (7), then, is indefensible because belief in it can only be true if we only take worlds to be doxastic alternatives which we recognise to be worlds which might not be actual.

It is this commitment to a locally anti-symmetric alternativeness relation that justifies our reluctance to believe, even if it is for the sake of the skeptic’s argument, that we do not disbelieve that his counterfactual skeptical scenario is actual. What the skeptic asks us to do, in effect, is to suspend our confidence in our knowledge claims, i.e. to accept the following as true:

(8) I know that *p*, but I believe (for the sake of the argument) that

I do not disbelieve that I do not know that *p*.

If the second conjunct is true and I have the belief that I am lacking the confidence I actually have in my knowledge claims, then the first conjunct is true only in worlds which are not doxastic alternatives to any of my doxastic alternatives. Thus (8) asks us to epistemically place ourselves in worlds from which there is no road back to the world where we take ourselves to be. By the first conjunct, the suspension of our normal confidence in our knowledge claims is only problematic for someone who actually endorses them. This is why (8) is a problem for the non-skeptic, but not for someone who is a skeptic already, i.e. who has taken the leap of faith required for this conversion. .

If skepticism requires a leap of faith we have good reasons not to take, we treat the skeptic fair in disbelieving him without proving him wrong.

6 First-order skepticism

One particularly popular way of facing the question whether we know something is by asking how we know that we are not dreaming now. If we do not know that we are not dreaming now, how then can we be sure that we not only *seem* to know something? Here is Descartes asking himself this question:

“Mais, en y pensant soigneusement, je me ressouviens d’avoir esté souvent trompé, lors que je dormais, par de semblables illusions. Et m’arrestant sur cette pensée, je voy si manifestement qu’il n’y a point d’indices concluans, ny de marques, assez certaines par où j’en puisse distinguer nettement la veille d’avec le sommeil, que j’en suis tout étonné; & mon estonnement est tel, qu’il est presque capable de me persuader que je dors.” (AT IX/I 15)

It is important that Descartes does not have to *suppose* that he is dreaming in order to challenge the knowledge claims based on basic perceptual beliefs like the one that he is sitting by the fire, etc. It is enough if he becomes aware to the possibility that he *might* be dreaming while keeping his beliefs. If he recognizes this to be possible, he has to treat a world where he only seems to know what he takes himself to know as a doxastic possibility. This undermines his knowledge claims by forcing him to acknowledge that they might be false. So he does not know them to be true and the skeptic has won.

Recently, Descartes’ dream argument has been generalized in interesting ways. I suppose the story is familiar by now: there is this uncomfortable place out there in the realm of possibilities where you are a brain in a vat, floating in a nutrient fluid keeping you alive, with a clever superscientist stimulating your brain to have exactly the same as (or, at least, introspectively indistinguishable from) your present experiences. By hypothesis, everything you experience in that situation is exactly like what you are experiencing now, with the sole difference that there you do not have any clue what the external world is like. So how can you be sure that the matrix does not already have you now?

In fact, you cannot. What I want to show is something much more modest: *If* you do not already believe that you might be a brain in a vat, it is impossible to convince you that this scenario really is a possibility you might be in. Suppose you are dealing with a skeptic who tries to convince you that you might be a brain in a vat. I am able to vaccinate you against becoming a skeptic iff I manage to convince you of the truth of what you would express by the following:

- (9) “If I were a brain in a vat, I wouldn’t take the actual world for what I
actually take it to be, namely possibly actual.”

(9) would mean that the skeptical scenario exhibits the structure of (7), committing us to anti-symmetric doxastic alternatives: it cannot be believed to be true in a world one takes oneself to believe to be actual. It seems that we cannot be brains in a vat unless we disbelieve that we are not. If this were the case, then the skeptic could not hope to bring us to suspend our disbelief: if he were to succeed in this, it would follow from our failure to disbelieve that we are not brains in a vat that we actually are not. So he would not have convinced us. To dispell this doubt, the skeptic has to convince us that we might be both brains in a vat and not disbelieve that we are not. He has to make his scenario possibly actual for us. Given that

it exhibits the structure of (7), this cannot be done.⁴¹ My argument for (9) rests on a crucial property of both the dream- and the brain-in-a-vat-scenario: If you were dreaming now, you would not believe you were dreaming. If you were a brain in a vat, you would not believe you were a brain in a vat. For suppose otherwise. Then you would not have any reason to worry about these scenarios being actual. For if you would think you are a brain in a vat provided that you were one, then there would be no way of convincing you that you might be a brain in a vat, given that you do not believe it already. For if you do not believe it already, you thereby differ from a brain in a vat and so you can, following the argument just sketched, be sure that you are not in such a deplorable situation. What I claim here, in effect, is that someone trying to believe the skeptic finds himself committed to believe something having the form of Moore's paradox (1), i.e. "I am a brain in a vat but I do not believe I am a brain in a vat." A skeptic, however will not be in this state, for he already believes that he might be a brain in a vat and therefore does not differ from a brain in a vat which believes that it is a brain in a vat.

We can go further, however, and show that belief in the *possibility* even of the skeptical scenario requires something of the form of (7), namely "I am not a brain in a vat but I do not disbelieve that I am a brain in a vat". This would mean that the doxastic alternative in which I am a brain in a vat does not have the actual world, where I am not a brain in a vat, as a doxastic alternative. Considering it possible commits us to an anti-symmetric alternativeness relation: we lose the way back to the actual world.

The argument for (9) now is the following: Suppose you are a brain in a vat. Then you do not believe that you are a brain in a vat. So there is a doxastic alternative where you fail to be one. This doxastic alternative, however, is not the one you suppose to be in. So it is one you would not – under this supposition – take to be actual. The doxastic alternative you would in this case take to be actual is one where you *are* a brain in a vat, so you would, if you are a brain in a vat, disbelieve that you are not a brain in a vat. Supposing otherwise would mean to describe the scenario as one in which you fail to be a brain in a vat in all doxastic alternatives (to that scenario), i.e. to suppose that the (under the supposition) actual world where you are a brain in a vat would not be a doxastic alternative. But you take, even under the supposition that you are a brain in a vat, the actual world to be actual. So if you were a brain in a vat, you would not take the actual world to be among your doxastic alternatives, i.e. you would not take it to be possibly actual.

The skeptic who wants to counter this argument has to argue that even if we were brains in a vat, we would not disbelieve that we are not. That is, he has to argue for (7) which, as we saw, we cannot become convinced of.

The crucial thing about (9) is that it only gives us a reason to disbelieve the skeptic if we take "actual world" to refer to the world which *we*, non-skeptics, take to be actual. In this case, however, it gives us what it takes to inoculate us against the skeptical disease. Here then is another version of the argument:

- (i) Suppose that there is a world w where I am a brain in a vat.
- (ii) I therefore do not, in w , believe that I am a brain in a vat.
- (iii) So I have, in w , a doxastic alternative which does not make it true that I am a brain in a vat.

⁴¹To see this, note that (9) follows from $p \rightarrow D\neg p$ (where p is "I am a brain in the vat"): if the brain-in-a-vat world were actual, I would, disbelieving that I am not a brain in a vat, reject the real actual world even as a doxastic alternative. This means that convincing us of the possible actuality of the brain in a vat scenario would require to dispel that impression, by bringing us to believe that $p \wedge \neg D\neg p$, i.e. to make us believe (7).

- (iv) Given that, in w , I would be supposing that I am a brain in a vat in w , this world cannot be w .
- (v) If I would not disbelieve in w that I am a brain in a vat, no world where I am a brain in the vat would be among my doxastic alternatives.
- (vi) In particular, w itself would not be among my doxastic alternatives: w would be a non-reflexive world.
- (vii) But I cannot take a non-reflexive world to be possibly actual.
- (viii) So I disbelieve, in w , that I am not a brain in a vat.
- (ix) So (discharging the supposition): Supposing that there is a world w where I am not a brain in a vat, I have to ascribe to myself, in w , disbelief that I am not a brain in a vat.
- (x) So I would not, in such a world, believe that I am not a brain in a vat.
- (xi) But I believe that I am not a brain in a vat.
- (xii) So I am not a brain in a vat.

This argument shows that you cannot suppose that you are a brain in a vat without having to concede that, actually, you are not a brain in a vat. You cannot consider the brain in a vat scenario to be possibly actual. The crucial premiss (xi) makes it impossible to use the argument outlined above to convince the skeptic. For not believing that $\neg p$ is, in general, compatible with there being a doxastic alternative where $\neg p$, as long as there is another doxastic alternative where p . For the skeptic, the existence of a doxastic alternative where he is a brain in a vat is guaranteed. For us, however, it is precisely this existence that is at stake. Given that we already believe that we are not brains in a vat, no such doxastic alternative exists. So the skeptic's convinces only those who are believers already. It requires a leap of faith.

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