

Does Skepticism Presuppose Explanationism?

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Explanationist (or abductivist) responses to skepticism maintain that our commonsense beliefs about the external world can be rationally preferred to skeptical hypotheses on the grounds that the former provide better explanations of our sensory experiences than the latter. This kind of response to radical skepticism has never enjoyed widespread acceptance in the epistemological community due to concerns about the epistemic merits of inference to the best explanation and appeals to the explanatory virtues. Against this tide of skepticism about explanationism, I argue that traditional skeptical challenges rest upon central explanationist tenets and thus that one cannot harbor doubts about the general class of explanationist responses to skepticism while at the same time granting the force of the skeptical challenges they seek to answer. I also show how explanationist principles do a better job than epistemic closure and underdetermination principles in articulating the structure and force of skeptical challenges.

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I. The Explanationist Response to Skepticism

In the contemporary epistemological literature, skeptical challenges most often employ skeptical hypotheses that depict situations that are much like what we take our normal circumstances to be in certain respects but in which we fail to have knowledge. These challenges are typically represented as arguments of the following form, where ' p ' is some proposition we ordinarily take ourselves to know and ' SK ' is a skeptical hypothesis:

(1.1) If I know that p , then I know that not- SK .

(1.2) I do not know that not- SK .

(1.3) Therefore, I do not know that p .

Premise (1.2) is usually supported by considerations that purport to show that one's current evidence somehow fails to favor p over SK .

A common response to radical skeptical challenges to our knowledge of the external world has been to maintain that, while both commonsense and skeptical explanations of our sensory experiences are in some sense equally consistent with our sensory experience, there are explanatory reasons (e.g., simplicity, coherence, explanatory power, conservatism) for favoring commonsense explanations over skeptical ones. Bertrand Russell (1912, pp. 22–23), for example, writes:

There is no logical impossibility in the supposition that the whole of life is a dream, in which we ourselves create all the objects that come before us. But although this is not logically impossible, there is no reason whatever to suppose that it is true; and it is, in fact, a less simple hypothesis, viewed as a means of accounting for the facts of our own life, than the common-sense hypothesis that there really are objects independent of us, whose action on us causes our sensations.

More recently, this kind of response to skepticism has been defended by William Lycan (1988), Paul Moser (1989), Jonathan Vogel (1990b; 2005), Laurence Bonjour (1998; 1999; 2003), and Kevin McCain (2014, ch. 6; forthcoming).¹ Explanationist responses to skepticism are intended to apply not only to simple, ordinary propositions about medium-sized bits of the external world (e.g., ‘I have hands’) but also to wide-ranging commonsense propositions that concern large-scale features of the world (e.g., ‘I am not a brain-in-a-vat’ or ‘our sensory experiences are in general caused by objects having roughly the characteristics we commonsensically take them to have’).

Despite the degree of visibility this class of responses has enjoyed, it has always been viewed with skepticism by the epistemological community because of concerns about the epistemic bona fides of explanatory reasoning. The most common concern about appeals to explanatory virtues was forcefully articulated by Bas van Fraassen (1980, p. 87):

Judgements of simplicity and explanatory power are the intuitive and natural vehicle for expressing our epistemic appraisal. What can an empiricist make of these other virtues which go so clearly beyond the ones he considers preeminent? There are specifically human concerns, a function of our interests and pleasures, which make some theories more valuable and appealing to us than others. Values of this sort, however,... cannot rationally guide our epistemic attitudes and decisions. For example, if it matters more to us to have one sort of question answered rather than another, that is no reason to think that a theory which answers more of the first sort of question is more likely to be true.

As Lycan (2002, p. 426) notes, in the face of van Fraassen’s challenge, the explanationist needs to show that the explanatory virtues are not “merely practical bonbons of no specifically

¹ Cf. Beebe (2009) for a fairly comprehensive review of this class of responses to skepticism.

epistemic, truth-conducive value” but are instead “genuine reasons for accepting a theory as more likely to be true than is a competitor that lacks them.”

In this chapter, I argue that skeptical challenges that employ skeptical hypotheses presuppose central explanationist tenets and thus that the force of compelling skeptical challenges can be understood only if the explanatory features of skeptical hypotheses are more than “merely practical bonuses” of no epistemic significance. I contend that careful consideration of the explanatory features of skeptical hypotheses paves the way for a better understanding of skeptical challenges in general and a better understanding of dreaming skepticism in particular—a type of challenge that epistemologists have never been able to explain with any satisfaction. I conclude that an appreciation of these facts should raise one’s estimation of the strength of explanationist responses to skepticism.

II. The Quasi-Logical Approach to Skeptical Challenges

The canonical approach to skeptical challenges rests upon the following assumptions:

SH1. In order for a skeptical hypothesis, *SK*, to raise a significant skeptical challenge to *S*’s putative knowledge that *p*, *p* and *SK* must be incompatible.

SH2. In order for a skeptical hypothesis, *SK*, to raise a significant skeptical challenge to *S*’s putative knowledge that *p*, it must be logically or metaphysically possible for *p* to be false.

SH3. In order for a skeptical hypothesis, *SK*, to raise a significant skeptical challenge to *S*’s putative knowledge that *p*, it must be logically or metaphysically possible for *SK* to be true.²

² My discussion of SH1 through SH3 here builds upon Beebe (2010).

Call the conjunction of SH1 through SH3 ‘the quasi-logical approach to skeptical challenges.’ I will argue that each component of the quasi-logical approach is mistaken and that their failures point the way toward a more satisfying explanationist alternative.

Commitment to the quasi-logical approach can be seen in the two most common epistemic principles that are used to articulate radical skeptical challenges. Premise (1.1) in the skeptical argument above is usually taken to be an abbreviated substitution instance of the following epistemic closure principle:

ECPI. If *S* knows that *p*, and *S* knows that *p* entails *q*, then *S* knows (or is in a position to know) that *q*.

Closure principles connect our knowledge (or lack of knowledge) of the falsity of skeptical hypotheses—as represented in (1.2)—with our knowledge (or lack of knowledge) of ordinary propositions—i.e., (1.3). They do this via relations of known entailment obtaining between having hands and not being brains in vats or (alternatively) between being brains in vats and not having hands.

Skeptical arguments that employ underdetermination principles also assume an incompatibility between propositions we think we know and skeptical hypotheses that seek to undermine our knowledge. Consider, for example, the following underdetermination principle from Anthony Brueckner (1994 p. 830):

UP. If *S*’s evidence for believing *p* does not favor *p* over some hypothesis *SK* which *S* knows to be incompatible with *p*, then *S*’s evidence does not justify *S* in believing *p*.

If there is no incompatibility between a putatively known proposition and a skeptical hypothesis, UP is unable to explain how one might be unjustified in rationally preferring the one over the other.

Thus, common epistemic principles like ECP1 and UP reflect the quasi-logical approach to skeptical challenges insofar as they explicitly incorporate conditions like SH1. Because discussions of ECP1 and UP also always focus on contingent propositions, they presuppose SH2 and SH3 as well.

Brueckner's (1985; 1994) influential reconstructions of what he calls 'the canonical Cartesian skeptical argument' reflect an explicit commitment to SH1, SH2, and SH3:

[T]he skeptic's reasoning requires the notion of a **counterpossibility** to \emptyset . If ψ is a logically possible proposition which is incompatible with \emptyset (which logically implies $\neg\emptyset$), then ψ is a counterpossibility to \emptyset . One counterpossibility principle which... the skeptic's reasoning might use is that if I know that \emptyset , then I know that no counterpossibility to \emptyset obtains. (Brueckner 1985, pp. 89-90, emphasis in original)

Without multiplying examples beyond necessity, it should be clear to anyone familiar with the contemporary literature on radical skepticism that commitment to the quasi-logical approach can be seen most anywhere that skepticism is discussed.³

Despite the ubiquity of SH1, it can be easily shown to be false. G. E. Moore (1959, p. 245) vividly illustrated the fact that dreaming skeptical hypotheses need not be incompatible with what subjects believe with the following anecdote:

But, on the other hand, from the hypothesis that I am dreaming, it certainly would not follow that I am *not* standing up; for it is certainly logically possible that a man should be

³ Cf. also, e.g., DeRose (1999), Pritchard (2002a; 2002b; 2005), and Greco (2008). Dretske's (1970, p. 1015) seminal formulation of the relevant alternatives approach to knowledge and skepticism also clearly presupposes SH1: "Suppose we assert that x is A . Consider some predicate, ' B ,' which is incompatible with A , such that nothing can be both A and B . It then follows from the fact that x is A that x is not B . Furthermore, if we conjoin B with any other predicate, Q , it follows from the fact that x is A that x is not- $(B$ and $Q)$. I shall call this type of consequence a *contrast consequence*, and I am interested in a particular subset of these; for I believe the most telling skeptical objections to our ordinary knowledge claims exploit a particular set of these contrast consequences." In spelling out what a contrast consequence or relevant alternative is, Dretske (1981, p. 371) writes, "Call the *Contrasting Set (CS)* the class of situations that are necessarily eliminated by what is known to be the case. That is, if S knows that P , then Q is in the *CS (of P)* if and only if, given P , necessarily not- Q ."

fast asleep and dreaming, while he is standing up and not lying down. It is therefore logically possible that I should both be standing up and at the same time dreaming that I am; just as the story, about a well-known Duke of Devonshire, that he once dreamt that he was speaking in the House of Lords and, when he woke up, found that he *was* speaking in the House of Lords, is certainly logically possible.

Thus, since dreaming skeptical hypotheses do not satisfy SH1 and yet clearly underwrite significant skeptical challenges to our beliefs, SH1 must be false. Furthermore, because ECP1 and UP are based upon the same notion of logical incompatibility between putatively known propositions and skeptical hypotheses, they are inadequate as well.

There is thus an inconsistency in contemporary discussions of skepticism. On the one hand, principles like SH1 are explicitly endorsed when epistemologists attempt to articulate the structure and force of skeptical challenges. On the other hand, it is commonly acknowledged that these principles cannot be true. Thus, not only is it incorrect to argue that epistemic principles like ECP1 and UP (which are formulated as if SH1 were true) form the backbone of skeptical arguments, commitment to these principles make it impossible for epistemologists to explain the force of dreaming skepticism—a point to which I will return in Section IV below.

Conditions SH2 and SH3 can also be shown to be false by considering the case of belief in the existence of God, understood to be a necessary being. If SH2 were correct and God exists, it would not be possible to raise any skeptical challenges to someone's belief in God's existence simply because that being necessarily exists. For the same reason, if SH3 were true and God exists, no skeptical hypothesis that hypothesized the non-existence of God would be able to get off the ground. This kind of reasoning seems to involve a category mistake. The ontological status of a being is one thing, while the epistemic status of one's belief in such a being's

existence is something else entirely. The necessary truth of a belief cannot by itself confer incontrovertible, skeptic-proof epistemic justification upon it. Whether a skeptical challenge based upon the Freudian notion that religious belief is a manifestation of wish-fulfillment or the hypothesis that religious belief stems from an evolutionarily adaptive but epistemically substandard belief-forming mechanism can present a compelling epistemological challenge to religious belief seems independent of the alethic modalities of the propositions in question. SH2 and SH3, then, are false.⁴ They unduly restrict the set of permissible skeptical hypotheses and the set of putatively known propositions that can be challenged to propositions that are contingent.

I conclude that the quasi-logical approach to skeptical challenges is thoroughly mistaken. Incompatibility between putatively known propositions and skeptical hypotheses is not necessary for the latter to pose a skeptical challenge to the former, and the alethic modalities of the propositions involved are irrelevant to the question of whether such a challenge can be successfully lodged.

III. The Explanationist Approach to Skeptical Challenges

To introduce a better way of understanding radical skeptical challenges, consider Fred Dretske's (1970, p. 1016) famous zebra case, in which you believe that the animal standing before you in the pen at the zoo is a zebra. The following propositions are all incompatible with what you believe:

- (2.1) The animal in the pen is not a zebra.
- (2.2) The animal in the pen is a lion.
- (2.3) The animal in the pen is a mule.
- (2.4) The animal in the pen is a mule cleverly disguised to look like a zebra.

⁴ For further discussion of these conditions, cf. Beebe (2011).

Proposition (2.1) is the contradictory of the ordinary proposition you believe, while (2.2) and (2.3) are contraries of that proposition. None of these three propositions by themselves has what it takes to underwrite a compelling skeptical challenge to your belief. Only (2.4) does.

The reason why (2.4) counts as a skeptical hypothesis is that it satisfies the following explanatory constraints:

SH4. In order for a skeptical hypothesis *SK* to raise a significant skeptical challenge to *S*'s putative knowledge that *p*, *SK* must explain *S*'s evidence for *p*.⁵

SH5. In order for a skeptical hypothesis *SK* to raise a significant skeptical challenge to *S*'s putative knowledge that *p*, *SK* must explain how *S* could believe that *p* on the basis of *S*'s evidence and yet not know that *p*.

(2.1), (2.2), and (2.3) do not attempt to explain (or explain away) your evidence for believing the animal in the pen is a zebra. They are merely incompatible with the proposition you believe. Thus, what makes the difference between a genuine skeptical hypothesis and a merely conflicting proposition are the explanatory relations that obtain between your evidence—e.g., your perceptual evidence that the animal standing before you in the pen at the zoo is a zebra and your background beliefs about how zoos operate and how common it is for zookeepers to perpetrate hoaxes on zoo visitors—and the skeptical hypothesis in question.

Brain-in-a-vat skeptical hypotheses satisfy SH4 and SH5, as does each of the alternatives that Vogel (1990a, pp. 16, 20, 21) sketches in his well-known discussion of 'car theft-type cases':

(3.1) My car is now parked on Avenue A.

(3.2) My car has been stolen and driven away from where it was parked.

⁵ As is common in the philosophical literature on explanation, I will use 'explains' to mean 'would explain if true' rather than 'actually explains.'

- (3.3) George Bush is the current President of the United States.
- (3.4) George Bush has had a fatal heart attack in the last five minutes.
- (3.5) I can get a good hamburger at a luncheonette several blocks from here.
- (3.6) A fire has just broken out at the luncheonette several blocks from here.
- (3.7) The San Francisco Bay is spanned by the Golden Gate Bridge.
- (3.8) The Golden Gate Bridge was just demolished by a falling meteorite.

The even numbered members of this set do not merely conflict with their odd-numbered counterparts. They explain how someone could have evidence for believing the odd-numbered statements without them being true.

It has long been recognized that hypotheses must perform a certain kind of explanatory work in order to count as skeptical hypotheses and that it is the performance of this work that enables them to challenge ordinary knowledge claims. Keith DeRose (1999, p. 1), for example, writes:

Well, skeptical arguments come in many varieties, but some of the most powerful of them proceed by means of *skeptical hypotheses*. Hypotheses explain. What does a skeptical hypothesis explain? It explains how you might be going wrong about the very things you think you know.

Despite the fact that philosophers are aware that skeptical hypotheses are able to challenge our ordinary beliefs because of the kind of explanations they provide, standard accounts of the structure and force of skeptical arguments fail to reflect this fact, as evidenced by the fact that the conflict between skeptical hypotheses and ordinary beliefs is always explicated in terms of the logical rather than the explanatory relations they bear to one another.

The foregoing reflections also reveal why the necessary condition articulated in SH1 cannot be turned into a sufficient condition for skeptical hypotheses to pose significant skeptical challenges. Logical incompatibility between a putatively known proposition and a skeptical hypothesis is simply not sufficient for the former to pose a challenge to the latter.⁶ It is also important to note that ordinary propositions (e.g., ‘I have hands’) and large-scale commonsense propositions about the external world (e.g., ‘I am not a brain-in-a-vat’) both satisfy SH4. Their truth would explain why things appear to us as they do, yet are clearly not skeptical hypotheses. Thus, the explanatory requirement in SH4 cannot be made a sufficient condition for presenting a skeptical challenge. Satisfying SH5 is also required.

Furthermore, satisfying both SH4 and SH5 is not sufficient for posing an effective skeptical challenge. An additional constraint on skeptical hypotheses is that they should be understood as explanations that compete with our more ordinary beliefs about the external world. In other words:

SH6. In order for a skeptical hypothesis *SK* to raise a significant skeptical challenge to *S*'s putative knowledge that *p*, the explanation *SK* provides must compete with the available commonsense explanations of *S*'s belief on which *S* knows that *p*.

Whether one hypothesis competes with another depends upon how strong the explanations of the relevant phenomena are that they provide. To be a competing explanation, a minimum threshold

⁶ Cohen (1998, n. 11, italics and ellipses in original) makes a similar point when he explains the motivation for thinking that one's evidence does not justify the belief that a skeptical hypothesis is false: "I appeal to the fact that if *SK* were true, it would *explain* the truth of *E* [i.e., one's evidence]. This is because the mere fact that *E* would be true if *SK* were true does not seem to be enough. Let *SK* be the bare hypothesis (*not-P* & *E*). The mere fact that if *SK* were true, *E* would be true, does not seem to count against saying that *E* justifies *not-SK*. We need some skeptical hypothesis that would explain the truth of *E*. That is the reason for specifying the hypothesis that I am a brain-in-a-vat..."

of explanatory merit is required.⁷ I contend that the only legitimate constraints on skeptical hypotheses are the explanatory ones represented in SH4 through SH6.

Some characterizations of skeptical hypotheses suggest that an additional condition of the following sort is also required:

SH7. In order for a skeptical hypothesis *SK* to raise a significant skeptical challenge to *S*'s putative knowledge that *p*, *SK* must depict a situation that is subjectively indistinguishable from *S*'s actual situation.

Duncan Pritchard (2002a), for example, writes:

Roughly, a skeptical hypothesis is an error-possibility that is incompatible with the knowledge that we ascribe to ourselves but which is also subjectively indistinguishable from normal circumstances (or, at least, what we take normal circumstances to be), such as that we might be currently experiencing a very vivid dream.

The requirement of subjective indistinguishability, however, is both too strong and redundant in certain respects. Local skeptical hypotheses such as (3.2), (3.4), (3.6), and (3.8) do not need to depict entire situations (i.e., worlds) that are subjectively indistinguishable from the actual world in order to raise skeptical challenges to particular beliefs. And while we might very well want global skeptical hypotheses to conform to SH7, not all famous skeptical hypotheses have done so. Contrary to Descartes' claim that "there are no certain indications by which we may clearly distinguish wakefulness from sleep," Thomas Hobbes (1651/1982, pt. 1, ch. 2) and Norman Malcolm (1959, ch. 17) have argued that dreaming could be distinguished from being awake on the basis of the coherence and lack of absurdities in one's waking life that are absent from

⁷ There are many conceptions of what a good explanation consists in, and I will not need to take a stand on the explanation debate for present purposes. However, I endorse the view, defended by Poston (2014, ch. 4), that explanation is a primitive relation between propositions that resists analysis into any non-trivial set of necessary and sufficient conditions.

dreams, and John Locke (1689/1998, bk. 4, ch. 2, §2) thought that there were important differences between real pains and merely dreamed ones. Furthermore, the massive deception famously depicted in *The Matrix* is not subjectively indistinguishable from a situation where no such deception is occurring. Neo, the movie's hero, is described as always having the feeling that "there is something wrong with the world"—a feeling he sometimes describes as "a splinter in his mind"—which leads to be suspicious about the "reality" he was supposed to accept. According to the narrative of *The Matrix*, this feeling would not be present if Neo inhabited a normal world. Thus, it seems sufficient for it to be difficult (rather than impossible) to tell that one is not in a skeptical scenario for a skeptical hypothesis to raise a compelling skeptical challenge. SH7 is, therefore, too strong.

Furthermore, in cases where it might seem plausible to require skeptical hypotheses to satisfy SH7, the condition is redundant. The function of subjective indistinguishability is to render subjects unable to tell that they are in one kind of situation rather than another, in light of the epistemic resources available to them. But by satisfying SH4 through SH6, a skeptical hypothesis will already have explained how we can possess a certain body of evidence for a given proposition yet fail to know that proposition on the basis of that evidence. In other words, the epistemic inability that is of concern in situations of subjective indistinguishability is already incorporated into conditions SH4 through SH6, and so no additional condition is needed.

Call a hypothesis that satisfies SH4, SH5, and SH6 a 'defeating explanation.' Just as one cannot know that p if one possesses an undefeated defeater for one's belief that p , one cannot know that p if one possesses an undefeated defeating explanation for one's belief that p . And just as ordinary defeaters come in rebutting and undermining varieties (Pollock 1986, pp. 38-9), so too do defeating explanations. A rebutting defeating explanation is one that incorporates the

negation of what one believes into its explanatory account, while an undercutting defeating explanation targets the epistemological basis for one's belief, regardless of the truth value of that belief. Knowledge may be closed under known entailment. But according to the explanationist perspective defended here, it is also closed under defeated explanatory defeat. In other words:

DED. If S knows that p and S knows that SK is a defeating explanation of S 's belief that p , then S knows (or is in a position to know) that not- SK .⁸

Call the conjunction of SH4, SH5, SH6, and DED 'the explanationist approach to skeptical challenges.'

According to the explanationist approach, premise (1.2) of the canonical skeptical argument—the claim that I do not know that not- SK —should be seen as being supported by my alleged inability to rule out a skeptical explanation of my evidence and belief that competes with a commonsense one. Premise (1.1)—the claim that if I know that p , then I know that not- SK —is best understood as an abbreviated substitution instance of DED rather than ECP1. The explanationist approach does not involve the rejection of closure or underdetermination principles. It merely maintains (i) that they are too narrow to account for the full range of skeptical challenges and (ii) that by focusing on logical rather than explanatory considerations they fail to locate the key factors that drive effective skeptical challenges. Notably, the explanationist approach to skeptical challenges and its preferred epistemic principle, DED, can also survive common attacks on closure, since the falsity of ECP1 does not obviously entail the falsity of DED.

⁸ Someone might want to argue that DED is a restricted version of the following 'defeater elimination principle' (due to Cohen 2002, p. 314) that should be endorsed: If S knows that p on the basis of R , and D is a potential defeater of R as a reason to believe p , then S knows that D is false. This principle treats defeating explanations as simply one species of defeater and maintains that all potential defeaters that are known to be such must be defeated in order to have knowledge. This principle appears to be both broader and stronger than either ECP1 or DED, but I do not have the space to examine its merits here.

The explanationist approach intuitively explains the force behind familiar skeptical challenges and effortlessly handles all of the problem cases that were raised against the quasi-logical approach. Consider how it accounts for skeptical challenges to necessarily true beliefs. Freudian or evolutionary cum cognitive scientific explanations of religious belief all seek to explain (à la SH4) the evidence religious subjects have for their beliefs and (à la SH5) how they could have those beliefs and yet fail to have knowledge. And they provide explanations of those beliefs that compete with commonsense explanations of them (à la SH6). As I will discuss in some detail in the following section, the explanationist approach can also easily accommodate and explain the challenge posed by dreaming skepticism.

IV. The Explanationist Approach to Dreaming Skepticism

In what I hope will be a striking demonstration of the strength of the explanationist approach to skeptical challenges, I will show that it can explain the skeptical force of dreaming skeptical arguments without entailing the dreaded KK-principle—something the quasi-logical approach has never succeeded in doing. As we noted above, since dreaming that I am sitting at my desk is compatible with me actually sitting at my desk, there will be no entailment between either of these claims and the negation of the other. This means that epistemic closure and underdetermination principles cannot be used to underwrite a dreaming skeptical argument, as they only concern relations of known mutual entailment between putatively known propositions and the negations of skeptical hypotheses. On the occasions when the inadequacy of closure and underdetermination principles is acknowledged, philosophers generally do one of two things. One is to mention the difficulty but fail to offer a better alternative epistemic principle. The other is to suggest stronger replacement principles that seem to entail the KK-principle.

Consider the following variant of ECP1:

ECP2. If S knows that p , and S knows that p and q are incompatible, then S knows (or is in a position to know) that not- q .

If dreaming that I am sitting at my desk is not incompatible with sitting at my desk, but it is incompatible with knowing that I am sitting at my desk, a seemingly obvious replacement for ECP2 that might account for the challenge of dreaming skepticism is the following:

ECP3. If S knows that p , and S knows that q is incompatible with S 's knowing that p , then S knows (or is in a position to know) that not- q .

Mark Steiner (1979), Barry Stroud (1984, chs. 1 & 3), Ernest Sosa (1997, p. 411; 1999, p. 145), and Vogel (2004, sec. 3), *inter alia*, maintain that a principle like ECP3 is needed to articulate the challenge of dreaming skepticism. However, those who suggest that ECP3 is needed to explain dreaming skepticism often express dissatisfaction with it as an epistemic principle. For example, immediately after articulating his version of the principle, Stroud (1984, p. 30) writes, "I will not speculate further on the qualifications or emendations needed to make the principle less implausible."

The most commonly noted reason for dissatisfaction with ECP3 stems from the fact that one of the things that is incompatible with S 's knowing that p is S 's not knowing that p . Substituting ' S does not know that p ' for q (and cancelling the double-negation) yields the following:

ECP4. If S knows that p , and S knows that S 's not knowing that p is incompatible with S 's knowing that p , then S knows (or is in a position to know) that S knows that p .

It is often assumed that principles like ECP4 directly entail the KK-principle (first articulated by Hintikka 1962):

KK1. If *S* knows that *p*, then *S* knows (or is in a position to know) that *S* knows that *p*.

However, KK follows from ECP4 only if the following is also true:

KK2. *S* knows that *S*'s not knowing that *p* is incompatible with *S*'s knowing that *p*.

But KK2 is false.

The reason KK2 is false is that epistemic principles like ECP1 through ECP4, UP, DED, KK1, and KK2 should all be understood as universally quantified generalizations. They are intended to cover every subject and every proposition. Like many authors, I have simply left out the quantifiers for ease of exposition. But it is important to return to them in the present instance. Because most people have never considered the incompatibility represented in KK2, they have no beliefs about the matter and thus the universal generalization expressed by KK2 is false. This means that a fully general KK-principle cannot be deduced from ECP3 or ECP4.

Now, of course, many philosophers have considered the matter in KK2 and have formed beliefs concerning it. This implies that if ECP4 is true, then KK1 will be true for them as well. This will still be a fairly devastating result, as the widely maligned KK-principle seems to impose too heavy an epistemic burden even on the knowledge of sophisticated philosophers.⁹ Nevertheless, it is important to understand the ways in which KK1 fails to follow directly from ECP3 or ECP4.

Consider now the explanationist approach to dreaming skeptical challenges. Dreaming hypotheses of the sort described by Descartes and Moore are undercutting defeating explanations rather than rebutting defeating explanations. The explanationist constraints on skeptical hypotheses require only that the hypotheses (i) explain *S*'s evidence for believing *p*, (ii) explain how *S* could believe that *p* without knowing that *p*, and (iii) compete with commonsense

⁹ For criticisms of KK-principle, cf. Alston (1980), Sorensen (1988), Williamson (2000, ch. 4), and Hawthorne (2004).

explanations of *S*'s belief on which *S* knows that *p*. Dreaming skeptical hypotheses satisfy each of the conditions, and these conditions intuitively and elegantly explain the force of dreaming skeptical challenges.

Furthermore, there is nothing in the explanationist constraints on skeptical hypotheses that imply KK1—even when its scope is restricted to philosophers who satisfy KK2. ECP3 requires that in order to know that *p* I must know (or be in a position to know) the falsity of any proposition incompatible with my not knowing that *p*. DED merely requires that I know (or be in a position to know) the falsity of any defeating explanation of my belief that *p*. Because not every proposition that is incompatible with my knowing that *p* will be a defeating explanation, the set of propositions that I must know to be false is thus significantly smaller on DED than on ECP3. In circumstances where one is faced with an undermining defeating explanation of one's belief, one may need to be in a position to know that one knows that *p* in order to know that *p*. But DED does not demand that one be in this kind of strong epistemic position with respect to any proposition that one hopes to know.

The explanationist approach to skeptical challenges thus explains the full range of compelling skeptical hypotheses without relying upon closure and underdetermination principles that are too weak to explain dreaming skeptical challenges and without bringing in alternative epistemic principles that are too strong. I conclude that the explanatory merits of the explanationist approach to skeptical challenges are significant.

V. Skepticism About Explanationism

Above I noted that many philosophers harbor doubts about whether the explanatory virtues or explanatory features of hypotheses have any “specifically epistemic, truth-conducive value.” I

would now like to consider this kind of skepticism about explanationism in light of the arguments I presented above about the role that the explanatory features of skeptical hypotheses play in enabling them to present significant skeptical challenges to our knowledge. I contend that skepticism about explanationism is inconsistent with appreciating the force of compelling skeptical hypotheses.

Explanationism comes in many varieties and grades of strength. Some versions of explanationism concern only ampliative inference, while others concern all of epistemic justification. Lycan (2002, p. 417) famously distinguished the following versions of explanationism about inference:

Weak Explanationism: the view that explanatory inference can epistemically justify a conclusion.

Sturdy Explanationism: the view that explanatory inference can epistemically justify a conclusion and can do so without being derived from some other more basic form of ampliative inference.

Ferocious Explanationism: the view that explanatory inference can epistemically justify a conclusion, that it can do so without being derived from some other more basic form of ampliative inference, and that no other form of ampliative inference is basic.

Holocaust Explanationism: the view that all inference and reasoning, including deductive as well as ampliative, is derived from explanatory inference.¹⁰

Some philosophers have argued that all of epistemic justification is ultimately a matter of explanatory considerations (e.g., Harman 1986; Lycan 1988; Moser 1989; Conee and Feldman 2008; McCain 2014; Poston 2014). Lycan (1988, p. 133), for example, writes, “Whatever ultimately justifies a belief is a matter of the explanatory contribution of that belief.” In contrast

¹⁰ Yes, he named a philosophical perspective on inference after the holocaust.

to these strong forms of explanationism about epistemic justification, one might consider the following, weaker version (analogous to Lycan's weak explanationism about inference above):

WE1. The explanatory features of a belief can epistemically justify that belief.

I want to focus my discussion on the following, generalized version of WE1 that covers the full range of cognitive attitudes that one can take to a proposition in light of one's evidence:

WE2. The explanatory features of a proposition can determine whether one should believe the proposition, disbelieve the proposition, or suspend judgment about the proposition.

I will argue that one cannot accept the explanationist approach to skeptical challenges articulated in the sections above and reject WE2.

Consider the justification-neutralizing power that skeptical hypotheses are widely thought to enjoy. In Dretske's (1970, p. 1016) classic discussion of the zebra case, he writes:

Do you know that these animals are not mules cleverly disguised by the zoo authorities to look like zebras? If you are tempted to say "Yes" to this question, think a moment about what reasons you have, what evidence you can produce in favor of this claim. The evidence you *had* for thinking them zebras has been effectively neutralized, since it does not count toward their *not* being mules cleverly disguised to look like zebras.

If explanatory considerations are "merely practical bonbons of no specifically epistemic, truth-conducting value"—i.e., if WE2 is false—how is it that my epistemic justification for believing that the animal in the pen is a zebra (or that I am sitting at my desk) is somehow called into question by the explanatory relations this proposition bears to the hypothesis that the animal in the pen is a mule cleverly disguised to look like a zebra (or to the hypothesis that I am dreaming I am sitting at my desk)? The failure of the quasi-logical approach to skeptical challenges means

that the justification-neutralizing power of skeptical hypotheses cannot be explained in terms of the logical relations they bear to ordinary propositions. But if logical relations are set aside, there does not seem to be any good alternative to believing that it is explanatory relations that are doing the work. Consider the following situation:

(4.1) *S*'s evidence, *E*, justifies *S* in believing that *p*.

(4.2) *SK* explains how *S* could possess *E*, believe that *p*, but fail to know that *p*.

(4.3) *SK* does not entail not-*p*.

I do not see how (4.1) through (4.3) could be true and WE2 false at the same time. Thus, I conclude that contemporary skeptical challenges that rely upon skeptical hypotheses presuppose central tenets of explanationism.

To come full circle, recall the explanationist response to skepticism, according to which explanatory considerations provide one with sufficient epistemic justification for rejecting skeptical hypotheses and accepting commonsense propositions, on the grounds that the latter are simpler, have greater explanatory power, lead to greater explanatory coherence in one's overall belief set, or are more conservative than the former. As we noted above, this response has never enjoyed widespread acceptance in the epistemological community. However, I have argued that this same epistemological community has failed to properly articulate the structure of skeptical challenges that are based upon dreaming hypotheses or that challenge necessarily true beliefs. Furthermore, I have argued that one cannot reject explanationism and at the same time provide an account of how skeptical hypotheses pose significant epistemological challenges to our putative knowledge of the external world. In light of the arguments presented here, I do not see how any kind of general skepticism about the explanationist response to skepticism can be warranted. One might have doubts about this or that version of explanationist response, but the

suggestion that the guiding idea behind this class of responses to skepticism is somehow fatally flawed appears untenable.

It is hoped that my articulation and defense of the explanationist approach to skeptical challenges will not only deepen philosophers' understanding of the skeptical challenges themselves but will also lead many of them to rethink their prior assessment of the merits of the explanationist response to skepticism.

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