

WRIGHT ON MOORE*

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1. Transmission

Jim's teacher has just given him his marked maths exam. Jim knows (because he is looking at it) that his mark is 7.25 out of 22. He also knows (because the teacher just said it) that the pass mark is 35%. Does Jim know he has failed? No, he doesn't. Not yet. As you would expect from his mark, Jim is not very good with numbers. He'll need a few minutes with pencil and paper to work out that 7.25 is less than 35% of 22. Only then will he know that he has failed.

This case exemplifies a common and important phenomenon: someone recognises the validity of an inference from a set of premises that he knows, and in so doing he acquires knowledge of the conclusion. Jim knows that his mark is 7.25 out of 22 and that the pass-mark is 35%. Then, by virtue of his calculation, he comes to recognise the validity of the inference from these premises to the conclusion that he has failed, thereby coming to know the sad truth.

It is undeniable that there are many cases, like Jim's, in which recognising the validity of an inference from known premises brings about knowledge of the conclusion, as this is the most natural characterisation of what goes on when we acquire knowledge by deductive inference. But can knowledge *always* be acquired in this way? Does recognition of the validity of an inference from known premises always bring about knowledge of the conclusion?

* I have benefited from discussion of these ideas with Mike Martin. I'm also grateful to Ross Ford.

There are cases in which this method of knowledge acquisition is trivially ruled out—namely cases in which the subject already knows the conclusion. If Jim’s exam had been marked “7.25 out of 22: Fail” by his perfectly reliable teacher, and Jim had formed the belief that he had failed upon reading this, he would thereby have come to know that he had failed. So even if he had later performed his calculation, this wouldn’t have resulted in knowledge acquisition. Notice that circular arguments fall under this category automatically. If the conclusion is one of the premises, you can’t know the premises without knowing the conclusion. Hence recognition of the validity of the inference won’t furnish you with knowledge of the conclusion.

Is this the only way in which recognition of the validity of an inference from known premises can fail to produce knowledge of the conclusion? This question is answered in the affirmative by a principle which, following Crispin Wright, I shall call *Transmission*.¹ Wright formulates the principle in terms of the notion of warrant. His conception of warrant is loose and open ended. In some contexts, he seems to treat it as interchangeable with evidence, reasons or grounds,² but the possibility of warrant in the absence of these is one of the most prominent features of his epistemology.³ It is unquestionable that sees the issue of the transmission of warrant as relevant to that of the acquisition of knowledge by inference.⁴ This suggests that he regards warrant as playing an important role in the contrast between knowledge and mere true belief, but he doesn’t provide an explicit account of how he takes

¹ See C. Wright. “Cogency and Question-Begging: Some Reflections on McKinsey’s Paradox and Putnam’s Proof”, “(Anti-)Sceptics Simple and Subtle: G. E. Moore and John McDowell”, “Some Reflections on the Acquisition of Warrant by Inference”.

² See, e.g., “(Anti-)Sceptics Simple and Subtle”, pp. 333-34.

³ Wright first put forward the idea in “Facts and Certainty”. The thought is developed in new directions in “Warrant for Nothing (and Foundations for Free)?” where he adopts the term ‘entitlement’ to refer to non-evidential warrant.

⁴ See, e.g., “(Anti-)Sceptics Simple and Subtle”, p. 332: “Intuitively, a transmissible warrant should make for the possible advancement of knowledge, or warranted belief [...]”.

warrant and knowledge to be related. In this essay I am going to simplify matters by providing an explicit definition of the former in terms of the latter. I shall assume the tripartite conception of knowledge as a species of true belief, and use the term *warrant* to denote the relation between a subject S and a proposition p, whose instantiation or otherwise when S truly believes that p will determine whether S knows that p. I am also going to assume that warrant facts are not primitive—that whenever S has warrant for p there is a different fact by virtue of which the warrant fact obtains. I shall refer to the fact that plays this role in each case as the *warrant-constituting fact*. I want to emphasise that this is unlikely to be the conception of warrant that Wright is employing. Hence my conclusions will bear on Wright's views only indirectly—to the extent that his conception of warrant approximates mine.

We can now provide the formulation of Transmission that I am going to use in this paper. For the sake of simplicity, I shall provide a formulation that covers only one-premise inferences:

T1 If p is a proposition that S believes and for which S has warrant (and q is a proposition for which S doesn't have warrant), then by recognising the validity of the inference from p to q, S will acquire warrant for q.

Transmission plays an important but complex role in the assessment of some prominent sceptical arguments. In a recent exchange, Fred Dretske and John Hawthorne have used the label *heavyweight* for propositions that Hawthorne characterises in the following terms: p is a heavyweight proposition just in case “we all have some strong inclination to say that p is not

the sort of thing that one can know by the exercise of reason alone and also that p is not the sort of thing that one can know by use of one's perceptual faculties (even aided by reason)".⁵

The inclinations that define heavyweight propositions are exploited by a familiar line of sceptical reasoning seeking to conclude that we can't know either other propositions that we are intuitively inclined to regard as easily knowable (call them *lightweight*). The reasoning challenges the knowability of a lightweight proposition by finding a heavyweight proposition entailed by it, and arguing that since the latter can't be known, the former can't be known either. Thus, the thought goes, since you can't know that there is a material world, you can't know that you have a broken fingernail, or since you can't know that the world didn't come into existence five minutes ago, you can't know that you had eggs for breakfast this morning. I shall refer to sceptical arguments based on these ideas as *Cartesian scepticism*.

The relevance of Transmission for the assessment of Cartesian scepticism lies in the fact that, if Transmission holds, then we seem to have at our disposal a very simple account of how we can obtain warrant for a heavyweight proposition H that the sceptic singles out to challenge our knowledge of a lightweight proposition L: We can acquire warrant for H by recognising the validity of the inference from L to H. Thus, by recognising the validity of the inference from the premise that you have a broken fingernail (which you might know by sense experience) to the conclusion that there is a material world, you would be able to acquire warrant for this conclusion, and by recognising the validity of the inference from the premise that you had eggs for breakfast this morning (which you might know by memory) to the conclusion that the world didn't come into existence five minutes ago, you could obtain warrant for this conclusion. Let me refer to inferences from a lightweight proposition to a

⁵ Cf. J. Hawthorne. "The Case for Closure", p. 33. See also F. Dretske, "The Case against Closure".

heavyweight proposition entailed by it as Moorean inferences, since G.E. Moore's famous proof of an external world seeks to put such an inference to antisceptical use.⁶

However, the effectiveness of Moorean inferences against Cartesian scepticism is not universally acknowledged, since many philosophers have a strong inclination to reject the idea that we can come to know heavyweight propositions in this way. Let me refer to those who object to the possibility of acquiring warrant for heavyweight propositions by recognising the validity of Moorean inferences as *anti-Mooreans*. In order to vindicate their position, anti-Mooreans need to provide a satisfactory explanation of why this method of warrant acquisition fails, given that, if we had warrant for the premise of a Moorean inference, and Transmission held, recognition of the validity of the inference would seem to result ineluctably in the acquisition of warrant for its conclusion.

There are two explanations of this failure which, I take it, the anti-Moorean should try to avoid. One is the sceptic's. For the sceptic, the reason why recognising the validity of a Moorean inference never provides us with warrant for its heavyweight conclusion is that we don't have warrant for its lightweight premise, as would be required for Transmission to apply. The other is the wholesale rejection of Transmission, which seems to jeopardize the possibility of acquiring knowledge by deductive inference. The only obvious way of avoiding these two unpalatable extremes would be to argue that Transmission holds in some cases—those in which knowledge acquisition by deductive inference seems unproblematic—but fails in others—including Moorean inferences. Notice, however, that the anti-Moorean can't simply stipulate that Transmission applies in all cases except in Moorean inferences, as this would provide no explanation of why knowledge acquisition doesn't ensue in these cases. The anti-Moorean who pursues this line needs to provide a principled way of drawing the

⁶ See G. E. Moore, "Proof of an External World".

distinction between legitimate and illegitimate applications of Transmission. She needs, in effect, to provide an instance of the schema:

If p is a proposition that S believes and for which S has warrant (and q is a proposition for which S doesn't have warrant), then by recognising the validity of the inference from p to q, S will acquire warrant for q just in case X.

I shall refer to the *just in case X* clause in this schema as the *limitation clause*.⁷ The resulting principle will have to satisfy two conditions. First, it has to be extensionally adequate, i.e. condition X has to be violated by Moorean inferences, but satisfied by intuitively legitimate cases of inferential warrant acquisition. Second, it has to render it intelligible that warrant acquisition is possible in the latter cases but not in the former.

This anti-Moorean agenda has been largely set by Crispin Wright in an influential series of papers.⁸ My goal here is to provide a critical assessment of some aspects of this project. I shall consider first some difficulties faced by some limitation clauses that Wright can be read as advocating. Then I shall argue that the anti-Moorean might not need limitation clauses—that in the presence of certain plausible assumptions, the anti-Moorean should have no trouble combining the possibility of knowing lightweight propositions with the unrestricted applicability of Transmission. I shall end by considering a parallel issue that arises when we shift our attention from the transmission of warrant to the transmission of evidential support.

2. Wright's Limitation Clauses

It is not easy to find a formulation of a limitation clause that can be unquestionably attributed to Wright. This is due to a large extent to the fact that he has presented his ideas in

⁷ Martin Davies has used the term 'limitation principle' to refer to principles specifying conditions under which warrant transmission would not be effected. See, e.g., "Externalism, Architecturalism, and Epistemic Warrant."

⁸ See C. Wright, "Facts and Certainty" and the papers cited in fn. 1.

connection with several different issues, including the tension between semantic externalism and privileged access, Hilary Putnam's proof that we are not envatted brains, G. E. Moore's proof of an external world and the disjunctivist response to scepticism.⁹ Rather than trying to defend the attribution to Wright of a specific limitation clause, I am going to consider the general phenomenon with which he has sought to motivate his proposals, and raise some issues for the limitation clauses that emerge from this approach.

Wright's basic idea is that the adequacy for warrant transmission of an inference from p to q will be undermined when the truth of q , or the subject's warrant for q , is somehow presupposed by the subject's warrant for p . Perhaps the version of this thought most strongly suggested by Wright's work yields a limitation clause dictating that recognition of the validity of an inference from a warranted premise won't give the subject warrant for the conclusion when the subject's warrant for the premise requires that the subject has independent warrant for the conclusion.

We can provide a formulation of this proposal based on our assumption that warrant facts are not primitive. According to the resulting limitation clause, recognition of the validity of an inference from a warranted premise won't give the subject warrant for the conclusion when the constituting fact for the subject's warrant for the premise requires that the subject has independent warrant for the conclusion. This clause generates the following amended version of Transmission:

T2 If p is a proposition that S believes and for which S has warrant (and q is a proposition for which S doesn't have warrant), then by recognising the validity of the inference

⁹ The first two are the main focus of "Cogency and Question-Begging." The last two are discussed in "(Anti-)Sceptics Simple and Subtle."

from p to q, S will acquire warrant for q just in case the constituting fact of S's warrant for p doesn't require that S has independent warrant for q.¹⁰

It has been argued that this principle would rule out the possibility of acquiring warrant for a heavyweight proposition by recognising the validity of a Moorean inference only on a questionable conception of warrant.¹¹ Consider the Moorean inference from the premise that I have a broken fingernail to the conclusion that there is an external world. In order for this inference to fall under the limitation clause of T2, it would have to be the case that the fact that constitutes my warrant for the proposition that I have a broken fingernail requires that I have independent warrant for the proposition that there is an external world. But on most contemporary accounts of warrant, my warrant for the former is constituted by facts that neither include my having warrant for the latter nor give me warrant for it.

The point can be illustrated by considering a reliabilist account of warrant, although it applies to a wide range of positions. On the reliabilist account, if I formed the belief that I have a broken fingernail as a result of the operation of my sensory devices, and my sensory devices are reliable, then this fact constitutes my warrant for the proposition that I have a

¹⁰ There is a weaker and a stronger reading of the notion that a fact F requires that a subject S has warrant for a proposition p. On the weaker reading, what this amounts to is that S's having warrant for p is a necessary condition for F, or, equivalently, that F is a sufficient condition for S's having warrant for p. It is unlikely that this is the right reading of the notion as it figures in the limitation clause that I am tentatively attributing to Wright, since it doesn't grasp the idea that what the warrant-constituting fact requires is warrant for the conclusion that is *independent*. On the weak reading, the warrant-constituting fact for the premise will count as requiring that the subject has warrant for the conclusion when it is also a warrant-constituting fact for the conclusion. Thus suppose that the fact that constitutes S's warrant for the proposition that it is raining also constitutes her warrant for the proposition that there is precipitation. Then the fact that constitutes the subject's warrant for the former requires, in this sense, that the subject has warrant for the latter. On the stronger reading, F requires that S has warrant for q only when S having warrant for q is an integral part of F. I.e. F is of the form F' & S has warrant for q, where F' doesn't constitute S's warrant for q. Then S's warrant for q—its constituting fact—will have to be independent of F. The limitation clause that I am attributing to Wright calls for a reading along these lines.

¹¹ See J. Brown, "The Reductio Argument and Transmission of Warrant", J. Pryor, "What's Wrong With Moore's Argument?"

broken fingernail. But this warrant-constituting fact doesn't seem to require (either in the weak or the strong sense of the notion, see fn. 10) that I have warrant for the proposition that there is an external world. It follows that this Moorean inference would not fall under the limitation clause of T2, and hence that T2 would sanction the acquisition of warrant for the proposition that there is an external world through recognition of the validity of this Moorean inference. If this point is accepted, we will have to conclude that T2 is too strong (i.e. its limitation clause too weak) to serve the anti-Moorean's purposes, as it fails to rule out the acquisition of knowledge of heavyweight propositions by recognising the validity of Moorean inferences.

I am very sympathetic to this point. However, here I want to pursue a different line of reasoning. I want to argue that when we read T2 in terms of the notion of warrant with which I am operating, we have at our disposal a more direct route to the conclusion that T2 is not sufficiently weak. Let L be a lightweight proposition for which subject S has warrant, let F be the fact that constitutes S's warrant for L, and let H be a heavyweight proposition entailed by L. Now, suppose that F requires that S has warrant for H. It follows that F is a sufficient condition for S having warrant for H. Then we have that the fact that gives S warrant for L entails that S also has warrant for H, and hence that S's acquiring warrant for H by recognising the validity of the inference from L to H is *trivially* excluded: S cannot acquire warrant for H in this way because she already has it.

What this reasoning suggests is, in effect, that on the conception of warrant with which I am operating, T2 is not weaker than T1. Every putative case of warrant transmission that is excluded by T2 would also be excluded by T1. For if the fact that constitutes S's warrant for L entails that S has warrant for H, then it can't be the case that S has warrant for L but not for H, as required for the applicability of T1. Therefore, T2 is equivalent to T1. This result would only fail to obtain on a conception of warrant according to which it is possible for a subject

who has a warrant for a proposition to acquire *another* warrant for that same proposition, or for a subject who has *some* warrant for a proposition to acquire *more* warrant for that same proposition. There are no doubt properties for which the term ‘warrant’ could be used which exhibit these features. But the conception of warrant with which I’m operating doesn’t make room for these possibilities. On this conception, warrant is a relation between subjects and propositions that a subject either bears or doesn’t bear to a proposition. If S bears this relation to p, then there is no sense in which S could come to bear this relation to p ‘twice over’ or ‘to a greater extent’. It could happen though that S has warrant for p by virtue of warrant-constituting fact F1, and another fact F2 comes to obtain with the power to constitute the fact that S has warrant for p, so that even if F1 didn’t obtain S would still have warrant for p by virtue of F2. We shall consider later on whether Moorean inferences can supply us with alternative sources of warrant for their conclusions in this way.

As I mentioned above, the claim that having warrant for a lightweight proposition requires having warrant for the heavyweight propositions that it entails is rejected by many contemporary epistemologists. However there is another relation between the conclusion of a Moorean argument and warrant for its premise that is unquestionably exemplified. Typically, if H is a heavyweight proposition that figures in a Cartesian sceptical challenge to S’s knowledge of a lightweight proposition L, we have that if H were false S wouldn’t have warrant for L. In other words, if F is the fact that constitutes S’s warrant for L, then F entails H. If my warrant for the proposition that I have a broken fingernail is supposed to result from the operation of my sensory devices, then if there were no external world, not only would I have no broken (or unbroken) fingernails. In addition, I would have no sensory devices whose operation could supply me with warrant for the proposition that I have a broken fingernail. The fact that constitutes my warrant for the proposition that I have a broken

fingernail entails that there is an external world. We can use this idea to formulate a revised transmission principle:

T3 If p is a proposition that S believes and for which S has warrant (and q is a proposition for which S doesn't have warrant), then by recognising the validity of the inference from p to q, S will acquire warrant for q just in case the constituting fact of S's warrant for p doesn't entail q.

Is this the transmission principle that the anti-Moorean is looking for? Defending an affirmative answer to this question would require showing that the putative cases of warrant acquisition that it excludes are illegitimate. One way one could try to discharge this task would be to argue that when the warrant constituting fact for the premise entails that the conclusion is true, it requires that the subject has independent warrant for the conclusion.¹² But this argument for T3 would face problems similar to those that afflicted T2, as the accounts of warrant that are incompatible with T2 are also incompatible with this defence of T3.

T3 has been challenged on the grounds that some of the instances of inferential warrant acquisition that it excludes seem intuitively legitimate.¹³ These challenges accuse the principle of being too restrictive. Here I want to pursue a different line of reasoning. I am going to argue that T3 is not restrictive enough—that it sanctions instances of inferential warrant acquisition that the anti-Moorean would want to proscribe.

¹² Sometimes Wright seems to advance this line of reasoning. See, e.g., “(Anti-)Sceptics Simple and Subtle”, pp. 342-43.

¹³ See M. Davies, “Externalism, Architecturalism, and Epistemic Warrant”, p. 352. Pryor, “What's Wrong With Moore's Argument?” pp. 358-59.

We can make the point with the help of Dretske's zebra example.¹⁴ Suppose that Fred goes to the zoo and upon seeing the animals in the enclosure marked 'zebras' he forms the belief that they are zebras. If we use once more the reliabilist account of warrant as an illustration, if the perceptual devices with which Fred has formed this belief are reliable, then he will have warrant for the proposition that the animals are zebras, and if this proposition is true, then Fred's belief will have the status of knowledge. Suppose now that Fred comes to recognise the validity of the inference from the proposition that the animals are zebras to the proposition that they are not cleverly disguised mules. I take it that the anti-Moorean won't want to treat this as a legitimate case of inferential warrant acquisition.¹⁵

The question that we need to ask is whether this case would fall under T3's limitation clause. It should be clear that it doesn't. The fact that Fred formed his belief with reliable perceptual devices does not entail that the animals he is looking at are not cleverly disguised mules. It does entail that such deception is sufficiently rare, but not that it never occurs, or that it is not occurring on this occasion. It follows that the fact that constitutes his warrant for the premise of Fred's inference could obtain even if the conclusion were false. Therefore, T3 would sanction Fred's piece of reasoning as a legitimate case of warrant acquisition. By recognising the validity of the inference, Fred would acquire warrant for the conclusion.¹⁶

Other cases that the anti-Moorean would want to proscribe do fall under T3's exclusion clause. Thus, e.g., one could argue that the inference from the proposition that the animals in the enclosure are zebras to the conclusion that not all the zebra-looking animals in the world

¹⁴ See F. Dretske, "Epistemic Operators".

¹⁵ Wright clearly wants to exclude this kind of case. See Wright, "(Anti-)Sceptics Simple and Subtle", pp. 342-44.

¹⁶ The falsity of the conclusion would entail that Fred doesn't know the premise, since it would entail that the premise is false, but this observation doesn't give rise to a plausible limitation clause, since proscribing inferential knowledge acquisition whenever the negation of the conclusion entails the negation of the premise would rule out all instances in which the inference is valid. See Pryor, "What's Wrong With Moore's Argument?" p. 358.

are cleverly disguised mules would be ruled out by the principle. For if Fred lived in an environment in which this conclusion was false, his zebra-detecting sensory devices would be highly unreliable. This might be seen as a partial vindication of the principle, since it excludes some of the cases that the anti-Moorean wants to rule out. Against this, however, one could argue that a satisfactory diagnosis of the pathology afflicting the inference from the premise that the animals are zebras to the conclusion that not all the zebra-looking animals in the world are cleverly disguised mules should mention a deficiency that is also present in the inference from that premise to the conclusion that the animals in the enclosure are not cleverly disguised mules. The fact that T3 treats the latter inference as acceptable should be seen as undermining the claim that the principle accurately identifies the source of the problem afflicting the former.¹⁷

3. Transmission and Closure

In the preceding section I have argued that the features of the relationship between premise and conclusion of a Moorean inference on which Wright has focused won't easily yield a limitation clause that serves the anti-Moorean agenda. I don't claim to have delivered a fatal blow to the project. Perhaps the difficulties that I have raised can be overcome with a more sophisticated account. And even if this line of thought didn't work, other authors have

¹⁷ Notice that, on other conceptions of warrant, T3 would sanction even Moorean inferences with the negations of traditional sceptical hypotheses as conclusions. Take, e.g., Jim Pryor's dogmatism, conceived as an account of warrant. If my warrant for the proposition that I have a broken fingernail is constituted by the fact that I have the phenomenology of seeming to ascertain with my perceptual episodes that this proposition is true, presumably this warrant-constituting fact does not entail that there is an external world, since an evil demon victim would have the same phenomenology. See J. Pryor, "The Skeptic and the Dogmatist", "What's Wrong With Moore's Argument?" pp. 356-57.

approached the task of finding limitation clauses from points of view that fall outside the scope of my discussion so far.¹⁸

I am not going to pursue further the assessment of specific limitation clauses. Rather, in this section I am going to make a suggestion that might enable the anti-Moorean to call off the search for a limitation clause. I am going to argue that, in the presence of a principle that Wright and many others accept, together with some plausible assumptions, endorsing transmission in its unrestricted form (T1) doesn't force us to condone the instances of warrant acquisition that the anti-Moorean wants to rule out.

The saving principle is Closure. Thanks to Wright we have a clear understanding of the distinction between Transmission and Closure.¹⁹ Transmission, as we have seen, is a principle concerning a specific method of warrant acquisition—namely, the acquisition of warrant for the conclusion of a valid inference with known premises as a result of recognising the validity of the inference. Closure does not concern this or any other specific method of warrant acquisition. What Closure dictates is simply that certain warrant claims about a subject are incompatible. It says that if p entails q, then we can't ascribe to a subject warrant for p and for the proposition that p entails q while not ascribing to her warrant for q. We can formulate the principle as follows:

If p entails q, and S has warrant for p and for the proposition that p entails q, then S has warrant for q.

¹⁸ See Davies, “Externalism, Architecturalism, and Epistemic Warrant”, “Externalism and Armchair Knowledge”, “The Problem of Armchair Knowledge”.

¹⁹ See, e.g., “(Anti-)Sceptics Simple and Subtle”, pp. 332-32.

Wright has expressed unambiguously his support for Closure, and in spite of some distinguished detractors, the principle enjoys widespread support.²⁰ Here I am not going to defend Closure. My goal will be to argue that, if the principle is true, then the anti-Moorean might have no need to limit the applicability of Transmission.

The basic idea is very simple. Let L be a lightweight proposition, and H a heavyweight proposition entailed by L. If Closure holds, then someone who has warrant for the proposition that L entails H won't be able to acquire warrant for H by recognising the validity of the inference from L to H. For either she doesn't have warrant for L, or she does, in which case, by Closure, she also has warrant for H. Either way, she doesn't satisfy the antecedent of T1, and recognition of the validity of the inference from L to H will fail to provide her with warrant for H.

Hence, in order to show that recognition of the validity of the inference from L to H can't provide a subject with warrant for H, it will suffice to show that, prior to recognising the validity of the inference, the subject already has warrant for the proposition that L entails H. If the anti-Moorean can show that this is the situation in each of the cases that she wants to exclude, she will no longer need a limitation clause, and she will be able to embrace transmission in its unrestricted form (T1).

The possibility that a subject has warrant for an entailment even though she hasn't recognised the validity of the corresponding inference shouldn't be problematic. I think it is natural to say that I have warrant, say, for the proposition that the Axiom of Choice entails Zorn's Lemma, since the result is stated in every set theory manual I've checked, and is accepted by every competent logician I know. However, it would be odd to say that I recognise the validity of the inference from Choice to Zorn's Lemma, since I have never

²⁰ The main dissenting voices are, of course, Fred Dretske and Robert Nozick. See Dretske, "Epistemic Operators" and Nozick, "Philosophical Explanations", Chapter 3.

worked through a proof and I have no intuitive understanding of why the former necessitates the latter.

Furthermore, validity recognition is a conscious episode that involves consciously entertaining the proposition that the premise entails the conclusion. However, it is widely accepted that we can believe, and have warrant for, propositions that we haven't consciously entertained, and I can see no reason to reject this possibility when the proposition in question has the form of an entailment.

However, for the anti-Moorean it is not enough to argue that warrant for an entailment is in principle possible when the subject hasn't recognised its validity. What she needs to argue is that this is the situation for every Moorean inference to which she takes exception. In the remainder of this section I want to sketch a line of reasoning that might lead to this result.

If p entails q , let's say that the entailment from p to q is *epistemically transparent* (or that p *transparently entails* q) just in case anyone who possesses the concepts that figure in p and in q has warrant for the entailment. Clearly, if the entailment from p to q is epistemically transparent, then anyone who is in a position to recognise the validity of the inference from p to q will already have warrant for it, since such a subject will have to possess the concepts that figure in p and in q . This means that the anti-Moorean could secure the result she needs if she could argue that in every objectionable Moorean inference the premise transparently entails the conclusion.

I am not going to provide a full defence of this claim, but I want to suggest that the thought is perfectly plausible. Take, e.g., the proposition that I have a broken fingernail and the proposition that there is an external world. I think it is natural to suppose that anyone who has the concepts that figure in these propositions will believe that the former entails the latter—whether or not she has consciously entertained the entailment, let alone recognised its validity. For it seems to be a condition on having these concepts that one has the belief that

connects them in this way. And I think it is just as natural to say that, in normal circumstances, someone who has these concepts *knows* the entailment—that warrant for the entailment is a direct consequence of the fact that the subject possesses the concepts that figure in it, even if the subject hasn't recognised its validity, or even consciously entertained it.²¹

I think that a similar claim can be made with respect to other Moorean inferences that have played a prominent role in sceptical debates. If you have the concepts that figure in the proposition that the seaweed was washed up by the tide some hours ago and in the proposition that the world didn't come into existence five minutes ago, then you have warrant for the proposition that the former entails the latter. And if you have the concepts that figure in the proposition that all As are Bs and in the proposition that some properties are invariably coinstantiated with others, then you have warrant for the corresponding entailment. And the verdict is equally plausible in Dretske's cases. If you have the concepts that figure in the propositions that the animals in the enclosure are zebras and that they are not cleverly disguised mules, then you have warrant for the proposition that the former entails the latter. And if you have the concepts that figure in the propositions that the wall is red and that the wall is not white but lit by a red light, then you have warrant for the corresponding entailment.

These remarks hardly add up to a satisfactory defence of the claim that in every objectionable Moorean inference the entailment from premise to conclusion is epistemically

²¹ Paul Boghossian has suggested that whenever belief in a proposition is required for having the concepts that figure in it, the proposition might have warrant for the subject who has the concepts, and hence the belief. He writes: "There may be beliefs that are such that having those beliefs is a condition for having one of the concepts ingredient in them. Any such belief, it seems to me could plausibly be claimed to be default reasonable. For if it really were part of the possession condition for a given concept that to possess it one had to believe a certain proposition containing it, then that would explain why belief in that proposition is at least presumptively (though defeasibly) justified." ("Knowledge of Logic", p. 240).

transparent. My main contention is that if this claim were correct, then the anti-Moorean who subscribes to Closure would have no need for limitation clauses. Even under T1, the Moorean inferences to which she objects would fail to sustain the acquisition of warrant for their conclusions. Let me summarize how this result is reached. Let L be a lightweight proposition, and let H be a heavyweight proposition transparently entailed by L. If S has the concepts that figure in L and H, then she has warrant for the proposition that L entails H, and then, by Closure, if she has warrant for L she also has warrant for H. Hence, either she doesn't have warrant for L or she has warrant for H. Either way she doesn't satisfy the antecedent of T1, and hence she wouldn't come to have warrant for H by recognising the validity of the inference from L to H.

The anti-Moorean strategy that I have outlined might seem to play into the hands of the sceptic. For once we have accepted Closure and the epistemic transparency of problematic Moorean inferences, we are forced to accept that you cannot have warrant for the lightweight premise of an objectionable Moorean inference unless you have warrant for its heavyweight conclusion. And this is all the sceptic needs to run her familiar line of reasoning from the unknowability of heavyweight propositions to the unknowability of the lightweight propositions that entail them.

In one respect, this complaint is incontestable. As soon as the anti-Moorean who follows this strategy accepts that the conclusion of an objectionable Moorean inference can't be known, she will have to accept that the premise can't be known either. But this leaves the anti-Moorean one route open to try and avoid widespread scepticism. She can avoid this outcome if she can resist the claim that the heavyweight propositions on which the sceptic focuses are unknowable.

The prospects for this line of thought turn on the extent to which warrant requires evidence, since the sceptic's defence of the unknowability of the propositions on which she

focuses rests on the contention that we cannot obtain adequate evidence for them.²² Hence, if the anti-Moorean could show that one can have warrant for these propositions in the absence of adequate evidence, she would be able to stop the sceptic's reasoning on its tracks.²³ The idea that warrant for the negations of sceptical hypotheses might not require evidence has long been a central ingredient of Wright's epistemology. Thus, in "Facts and Certainty" he suggests that we might be able to overcome Cartesian scepticism "if it could be reasonable to accept a group III proposition [roughly, the negation of a sceptical hypothesis] *without reason*; that is, without evidence".²⁴ His proposal at the time as to how this situation might come about involved the idea of treating these propositions as "partly constitutive" of the concepts that figure in them.²⁵ More recently he has explored other possible accounts of the phenomenon.²⁶ In any case, the possibility of warrant in the absence of evidence is a straightforward consequence of mainstream externalist epistemologies, since they typically postulate sufficient conditions for knowledge that can be exemplified when the subject has no evidence. Once this possibility is accepted in principle, one could argue that some heavyweight propositions prominent in sceptical debates are particularly suited for this treatment.²⁷

²² In "BonJour, Externalism and the Regress Problem", I have attacked what many see as the most effective line of support for the idea that knowledge requires evidence.

²³ For this approach to Cartesian scepticism, see Jonathan Vogel, "Reliabilism Leveled", p. 606.

²⁴ P. 450.

²⁵ Ibid. p. 453.

²⁶ Cf. C. Wright, "Warrant for Nothing (and Foundations for Free)?"

²⁷ Cf. my "Externalism, Skepticism and the Problem of Easy Knowledge," §4, where I offer an explanation of why this might be so. I am not suggesting that this move can provide a satisfactory solution to sceptical problems, but I do think that the only hope for keeping them alive is to construe them, as Wright suggests, "not as directly challenging our having any warrant for large classes of our beliefs but as crises of intellectual conscience for one who wants to claim that we do." ("Warrant for Nothing (and Foundations for Free)?", p. 167)

I'd like to end this section by returning to a point that I mentioned briefly earlier on. A critic might concede that I have successfully shown that recognition of the validity of a Moorean inference can never enable a subject to acquire warrant for its conclusion, so to speak, *de novo*, since the conditions that make this method of warrant acquisition possible obtain only when the subject already has warrant for the conclusion. Nevertheless, the thought goes, nothing that I have said undermines the possibility that by recognising the validity of a Moorean inference, a subject obtains an additional source of warrant for the conclusion, over and above the warrant she already had, and this possibility is certainly against the spirit of the anti-Moorean position.

This objection can be easily rebutted. If a subject S who has a source of warrant A for a proposition p is to count as having acquired an additional source for warrant B for p, we would expect the following counterfactual to hold: if A hadn't obtained, but B still obtained, then S would still have warrant for p. Hence, if S's recognition of the validity of the inference from L to H is to provide S with an additional source of warrant for H, it would have to be the case that, even if S had not had warrant for H prior to the episode of validity recognition, this episode would still give S warrant for H. But according to the anti-Moorean strategy that I have presented this counterfactual is clearly false. For if S didn't have pre-existing warrant for H, then, by Closure, she wouldn't have warrant for L either, in which case recognising the validity of the inference from L to H would not furnish her with warrant for H.

4. Evidence Transmission

So far I have been concerned exclusively with the question, whether recognition of the validity of a Moorean inference with a known premise can give us knowledge of its conclusion. This is not the only issue under discussion in the recent literature on Moorean inferences. Another prominent issue in these debates is whether a piece of evidence can support the premise of a Moorean inference while not supporting its conclusion, for a subject

who knows that the former entails the latter. This is the issue on which James Pryor has focused in a recent paper. Pryor formulates the issue in terms of the notion of justification, but he construes justification as “the quality that hypotheses possess for you when they are epistemically likely for you to be true”,²⁸ and it is natural to say that a piece of evidence supports a hypothesis for you when it increases the extent to which the hypothesis has this quality for you. Pryor writes:

Pre-reflectively, it seems like Moore’s perception of his hands should give him more justification to believe he has hands than he’d have without it. And we grant that hands are external objects (and that Moore knows them to be so). Yet many are reluctant to accept that Moore’s perception of hands gives him more justification to believe there’s an external world. Why do we hesitate? If something gives you justification to believe P, and you know P to entail Q, then shouldn’t it give you justification to believe Q, too?²⁹

Let me refer to any case in which a piece of evidence E provides a subject S with support for p but not for q, even though S knows that p entails q, as a case of *evidence transmission failure*. The main goal of Pryor’s paper is to argue that, when p and q are the premise and conclusion of a Moorean inference that S knows to be valid, and E is a typical piece of evidence for p, evidence transmission doesn’t fail—i.e. E also supports q for S:

I think that Moore *does* have perceptual justification to believe he has hands, and I think his justification to believe that *does* transmit to the hypothesis that there’s an external world. So Moore *can* acquire justification to believe there’s an external world by having experiences of hands and reasoning in the way he does.³⁰

And again:

²⁸ “What’s wrong with Moore’s Argument?”, p. 352.

²⁹ Ibid. p. 350. Notice that Wright has explicitly denied that this is the issue with which his discussion of Moorean inferences is concerned. Cf. “(Anti-)Sceptics Simple and Subtle”, pp. 334-35.

³⁰ “What’s Wrong with Moore’s Argument”, p. 351.

I think you genuinely *do* get justification to believe the external world exists from your perceptual justification to believe hands exist.³¹

Pryor takes issue with a line of reasoning that he finds in Wright and Davies for the view that transmission fails in these cases—roughly the thought that in these cases your evidence for the premise will only do its job if you have antecedent evidence for the conclusion. I find Pryor’s attack’s on this line of reasoning highly convincing. What I don’t see is that the shortcomings of the Wright/Davies defence of evidence transmission failure force us to accept Pryor’s conclusion. My goal in this section is to provide an account of why evidence transmission might fail in these cases which doesn’t rest on any of the assumptions to which Pryor takes exception.

Suppose that a piece of evidence E makes a proposition p more likely for you to be true, and that you know that p entails another proposition q . Does it follow that E makes q more likely for you to be true? There is a line of reasoning that makes an affirmative answer to this question seem irresistible. Let’s represent how likely a piece of evidence X makes a proposition ϕ for a subject S as a rational number between 0 and 1, $P_S(\phi/X)$. We can reason as follows. If S knows that p entails q , we have that $P_S(q/p) = 1$. Then for every piece of evidence X , $P_S(q/X) \geq P_S(p/X)$. Hence, in particular, $P_S(q/E) \geq P_S(p/E)$. Therefore E makes q at least as likely for S to be true as it makes p for S to be true, and if E makes p more likely for S to be true, it also makes q more likely for S to be true.

But this line of reasoning is incorrect. The problem is that it rests on an oversimplified account of when a piece of evidence makes a hypothesis more likely for a subject to be true.

Consider the following case. You are told that a box contains ten objects, that half of them are red and that three of the red objects are balls. Now one of the objects is taken from the box. If you were now told that the object is red (R), would this make it more likely for you

³¹ Ibid., p. 352.

that the object is a ball (B)? As I have described the case, the answer is surely ‘yes’. Before you are told that the object is red, the information at your disposal doesn’t make the object more likely to be a ball than not. But the evidence that the object is red does make it more likely to be a ball than not, since $P_S(B/R) = .6$. Hence R makes B more likely for you to be true.

However, consider now a slightly different case. This time, in addition to all the information that you were given in the previous case, you are told that seven of the objects in the box are balls. Suppose, as before, that an object is taken from the box. We can ask again the same question: if you were told that the object is red, would this make it more likely for you that the object is a ball? I want to argue that in this case the question would have to be answered in the negative. Before you are told that the object is red, there is for you a seven in ten chance that the object is a ball. If you were told that the object is red, the probability for you of the object being a ball would *decrease*—to six in ten. Hence the information that the object is red would not make it more likely for you that it is a ball. In fact, it would make it more likely for you that the object is *not* a ball, since, upon learning that the object is red, the probability for you of its not being a ball would increase from three in ten to four in ten.

What this suggests is that when a subject S already assigns a probability to a hypothesis H, prior to acquiring a piece of evidence E, whether E would make H more likely for S to be true is not determined exclusively by how likely E makes H for S— $P_S(H/E)$. It is determined, rather, by how this likelihood relates to the likelihood of H for S prior to acquiring E— $P_S(H)$. E makes H more likely for S to be true just in case $P_S(H/E) > P_S(H)$.³²

³² This construal corresponds to the notion that Earman labels ‘incremental confirmation’ (see J. Earman, *Bayes or Bust?* pp. 66-67). As Earman points out (p. 67), it is equivalent to what he calls the ‘likelihood criterion’, i.e. $P_S(E/H) > P_S(E)$ (provided that none of the probabilities involved are zero). My construal follows from a familiar measure of evidential support first put forward, as far as I know, by Carnap, in the preface to the second edition of *The Logical*

Once we adopt this construal of when E makes H more likely for S, the argument that I provided against evidence transmission failure can no longer be run. Now the assumption that E makes p more likely for S to be true is cashed out as $P_S(p/E) > P_S(p)$. Since S knows that p entails q, we have, as before, that $P_S(q/E) \geq P_S(p/E)$. This entails, of course, that $P_S(q/E) > P_S(p)$, but it doesn't follow from this that E makes q more likely for S to be true. For that we would need to show that $P_S(q/E) > P_S(q)$, but we have no way of establishing this. Our assumptions are perfectly compatible with the possibility that $P_S(q/E) \leq P_S(q)$. Whenever this situation obtains, we'll have a case of evidence transmission failure.

Let's review now how these considerations apply to some of the cases that interest us. Take, first, Dretske's zebra case. Fred's zebra-like sense impressions will make the proposition that the animals are zebras more likely for him to be true just in case the likelihood for him that this proposition is true, given these sense impressions, is higher than the likelihood for him that the proposition is true prior to having these sense impressions. And it is hard to deny that his sense impressions satisfy this condition. Suppose that Fred goes to the zoo and sees an enclosure covered with a screen. It is undeniable that, whatever probability he ascribes at that point to the animals behind the screen being zebras, it would be increased if the screen was removed and he had zebra-like sense impressions. However, consider now the situation with regard to the proposition that the animals in the enclosure are not cleverly disguised mules. We can expect, given his background information, that the probability that he assigns to this proposition before the screen is removed is very high. However, and this is the crucial point, when the screen is removed and he receives zebra-like sense impressions, the likelihood for him of the proposition being true would not increase. In fact, we can expect this probability to decrease—even if only slightly. After all, the animals

Foundations of Probability (pp. xv-xvii)—i.e. $P_S(H/E) - P_S(H)$. E makes H more likely for S to be true, on my construal, when this function has a positive value.

wouldn't be cleverly disguised mules unless they produced zebra-like sense impressions. Hence such sense impressions rule out only possibilities that would make it true that the animals are not cleverly disguised mules (e.g. elephant-looking elephants, tiger-looking tigers...). Therefore, under normal circumstances, we can expect Fred's zebra-like sense impressions to make the proposition that the animals in the enclosure are zebras more likely for him to be true, but not to have this consequence for the proposition that they are not cleverly disguised mules, even though he knows that the former entails the latter. Dretske's case exhibits evidence transmission failure.³³

A similar situation obtains with regard to the pairs of propositions that figure in Cartesian sceptical arguments. The likelihood for me that I have a broken fingernail, given sense impressions as of a broken fingernail, can be expected to be higher than the likelihood for me of this proposition before having any relevant sense impressions. Nevertheless, the likelihood for me of the proposition that I am not a disembodied victim of an evil demon would not be affected by my broken fingernail-like sense impressions. The likelihood for me of this proposition before I look at my fingernails, whatever it is, will remain unchanged after I look and receive these sense impressions. The evil-demon hypothesis, like other Cartesian sceptical hypotheses, is precisely designed to have this feature. Hence these hypotheses can be expected to generate cases of transmission failure.

I'd like to close this section by considering how these ideas apply to Wright's soccer example.³⁴ Notice first that the evidence of someone kicking a ball between two posts can be expected to make the proposition that a soccer goal is being scored more likely for you. To see this, we just need to compare the probability that a subject can be expected to ascribe in

³³ Pryor is undoubtedly aware of the phenomenon that I am using to explain evidence transmission failure, since it is exemplified by his case of Clio's pet (cf. "What's Wrong with Moore's Argument?" pp. 350-51). However, he dismisses this explanation out of hand.

³⁴ See "Facts and Certainty", p. 436, "Cogency and Question-Begging", pp. 141-43.

normal circumstances to the hypothesis that a soccer goal is being scored prior to ascertaining that a ball is being kicked between two posts with the probability that she can be expected to ascribe to this proposition after making this discovery. It is clear that the former, whatever it is, will be lower than the latter.

Now, with respect to the proposition that a soccer game is being played, the same situation obtains. In normal circumstances, the evidence that a ball is being kicked between two posts will make this proposition more likely for a subject. Just think of how likely it is for you that a soccer game is being played at an arbitrary moment and how likely this is to be happening when a ball is being kicked between two posts. I can't see how the latter could fail to be higher than the former—even taking account of the fact that some of the times when a ball is being kicked between two posts no soccer game is taking place.

Interestingly, this will remain so even if the circumstances are assumed to be abnormal in the way that Wright envisages. Suppose that a soccer film is being rehearsed in the park, and an instance of a ball being kicked between two posts is as likely to be a film rehearsal as a goal being scored in a real soccer game. It remains the case that the likelihood that a soccer goal is being scored and a soccer game being played in the park at an arbitrary moment is lower than the likelihood of this happening when a ball is being kicked between two posts. Hence the evidence that a ball is being kicked between two posts will still make the propositions that a soccer goal is being scored and that a soccer game is being played more likely for you. It will also make more likely for you the proposition that a rehearsal of the football film is taking place, since the likelihood that this is happening at an arbitrary moment is also lower than the likelihood that it is happening when a ball is being kicked between two posts. However, there is no reason why a piece of evidence should not increase the likelihood for you of two incompatible hypotheses.

Nevertheless, there are other circumstances in which evidence transmission between these propositions would fail. Suppose that the soccer film has an obsessive director, and the goal-scoring scene is constantly being rehearsed in the park, except when the pitch is being used for a real game of soccer. For a subject who knows this to be the situation, the discovery that a ball is being kicked between two posts will still make the proposition that a soccer goal is being scored more likely, since even in these circumstances it is less likely that a soccer goal is being scored at an arbitrary moment than when a ball is being kicked between two posts.³⁵ However, for such a subject the discovery that a ball is being kicked between two posts would decrease the likelihood that a game of soccer is being played. For her, the likelihood that a soccer game is being played in the park at an arbitrary moment is higher than the likelihood of this when a ball is being kicked between two posts, since she believes that a game of soccer is on whenever it's not the case that a ball is being kicked between two posts. Hence, in these circumstances, the discovery that a ball is being kicked between two posts would provide the subject with evidence for the hypothesis that a soccer goal is being scored, but not for the hypothesis that a soccer game is being played, even if she knows that the former entails the latter, and evidence transmission fails once again.

5. Conclusion

I have considered two issues regarding the relationship between a lightweight proposition L and a heavyweight proposition H entailed by L. The first is whether someone who knows L can come to know H by recognising the validity of the inference from L to H. The second is whether a piece of evidence that makes L more likely for you must also make H more likely for you if you know that L entails H. It is often assumed that one can only answer these

³⁵ Unless a huge number of goals is scored with other parts of the body, but we will disregard this possibility.

questions in the negative by imposing implausible internalist constraints on when L can be known or supported by a piece of evidence. This assumption can take the form of a dilemma: either we accept these constraints or we answer our questions in the affirmative, maintaining that transmission (of warrant or of evidence) never fails. I find both horns of this dilemma unappealing. The internalist constraints are indefensible, but the idea that Moorean inferences can sustain the acquisition of knowledge of, or evidence for, their conclusions is deeply counterintuitive.

My main goal in this paper has been to sketch strategies for avoiding this dilemma—for vindicating the possibility of transmission failure without invoking the internalist constraints on knowledge or evidence often associated with it. These strategies, if successful, will enable us to reject the internalist constraints, as I think we should, while embracing what pre-reflective intuition surely singles out as the default position—that Moore obtains neither knowledge nor evidence from his proof.

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