7.

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Rowe's Noseeum Arguments

from Evil

In the Midwest we have "noseeums"-tiny flies which, while having a painful bite, are so small you "no see 'urn." We also have Rowe's inductive argument for athe- ism. Rowe holds that the theistic God would allow suffering only if doing so serves some outweighing good. But is there some such good for every instance of suffering? Rowe thinks not. There is much suffering, he says, for which we *see no* such goods; and this, he argues, inductively justifies believing that for some sufferings there *are no* such goods. Since it gives such bite to what we cannot see, I call this a "noseeum argument" from evil.

In 1984, I criticized Rowe's induction using CORNEA, the "Condition of Reasonable Epistemic Access." In brief, CORNEA says that we can argue from "we see no X" to "there is no X" only when X has "reasonable seeabiIity"-that is, is the sort of thing which, if it exists, we *can reasonably expect* to see in the situation. Looking around my garage and seeing no dog entitles me to conclude that none is present, but seeing no flea does not; and this is because fleas, unlike dogs, have low seeability: even if they were present, we cannot reasonably expect to see them in this way. But should we expect God-purposed goods to have the needed seeabiI-

ity? Arguing from the disparity between a creator's vision and ours, I urged not: Rowe's case thus fails CORNEA's seeability requirement.

In reply, Rowe says he accepts CORNEA's seeability test; he argues, how- ever, that his argument passes the test. His central objection is that the disparity between God's vision and ours is "no reason whatever" to think God's purposes would lack the required seeability. But underlying our dispute about this are subtler issues. Rowe correctly sees CORNEA as a strategy for "defeating" inductive justifications. I shall argue, however, that he misportrays CORNEA, and that this is due to an underlying difference in our views of how defeaters work. After clarifying this underlying difference, I shall defend the view of defeaters implicit in CORNEA, and use this to improve the CORNEA critique in view of Rowe's central objection.

1. *Rowe's Noseeum Case and the CORNEA Critique*

Rowe's noseeum case involves two main claims. The first is that God would allow an instance of intense suffering only if doing so serves some out- weighing good obtainable only by God's allowing this (or some comparable) evil.' like many theists, I accept this claim. Rowe's second claim is that some sufferings serve no such God- justifying purpose. The two claims together entail that God does not exist; a theist who accepts the first must thus reject the second. But Rowe supports the second by his noseeum evidence. What is this evidence, then, and how strong is it?

1.1 ROWE'S NOSEEUM ARGUMENT

Rowe gives two formulations of his argument for his second big claim. Both begin with a particular case: a fawn, burned in a distant forest fire, lies in agony for days before dying. We see no good served by God's allowing this suffering. And this, Rowe says, is good reason to conclude that there is no such good. Why is this so?

Rowe's original 1979 article puts the inference in "the Appears Mode." Since we cannot see (or think of) any outweighing good served by the suffering, Rowe says, the suffering surely "does not appear" to serve any such good. But it is a well-known epistemic principle (the "principle of credulity")2 that if something appears to be a certain way, then, provided there is no counterevidence, it is reasonable for us to believe X is that way. That much suffering does not appear to serve any outweighing good, Rowe claims, gives strong rational support that there is no such good (and so, given his first big claim, no God). Letting e be the fawn's suffering, his key ,...~..~. .~e:

(I) We see no good for which God would allow e

to

(1.9) There appears to be no good for which God allows e.

to

(2) There is no good for which God allows e.

Later Rowe formulates this as an induction. A good has J, he stipulates, just in case obtaining it would suffice to justify God in allowing the fawn's suffering. The key inference then is:

(I) All goods we see lack J

to

(2) All goods there are lack J.

(I) and (2) here say the same thing as above. Rowe no longer needs the intermediate (1.9), because this formulation-as he sees it-makes the argument a standard inductive inference of the sort that we rely upon constantly (e.g. , in moving from "all copper we have observed is conductive" to "all copper is conductive").3

1.2 SUMMARY OF CORNEA

The original CORNEA critique was aimed at the first formulation and sought to block the move from I to 1.9. In my view, what made Rowe's initial formulation so seductive was the ambiguous character of the "appears" claim (1.9). On first reading, this claim seems to go little beyond the noseeum facts codified in (I)-we see no point to the suffering, so, "surely," it does not appear that there is any point-the suffering "appears pointless." I argued that the appears-claim goes far beyond the initial facts. For one thing, Rowe (in accord with ordinary English, but not strict philosophical precision) uses "does not appear" to mean "appears not" (just as "Tom does not appear to be sane" ordinarily means "Tom appears not to be sane"). For another, he uses "appears" in its so-called "epistemic" sense rather than its weaker comparative or phenomenological senses; only so can he move (by the Principle of Credulity) from his premise about how things seem (1.9) to his conclusion about how they are (2). These two things mean that his appears claim (1.9) asserts far more than one might first think. Imagine a doctor, squinting at a used
hypodermic needle and seeing no germs, inferring first that the needle does not'..
appear to have any germs on it (i.e., that it appears germless), and from this, that it does not have any germs on it (that it is germless). We should, I believe, resist the doctor's inference at the first step: the claim that the needle appears germless is a very big claim quite unwarranted by the doctor's seeing no germs. Similarly, I contended, Rowe's inference must be questioned at its first step. To grant (1.9) lets Rowe not just in the game but ninety-nine yards down the field.

CORNEA, then, is a strategy for evaluating appears claims. Its application to Rowe has three stages.

Stone A propounds CORNEA itself. CORNEA says that a situation of seeing no X justifies one's claiming "it appears there is no X" only if it is reasonable for one to believe that X is something to which we would likely have "epistemic access" in the situation. The official formulation of CORNEA (Wykstra [1984], 85),* applied to Rowe's inference, was:

*References not given in the notes will be found in the bibliography at the end of this book

On the basis of his seeing no God-justifying good served by the fawn's suffering, Rowe is entitled to claim "It appears that there is no such good" only if it is reasonable for Rowe to believe that, given his cognitive faculties and the use he has made of them, if the fawn's suffering served such a good, he would likely see (have epistemic access to) it.

In other words, CORNEA says that Rowe's noseeurn situation justifies his appears claim only if *it is reasonable for Rowe to believe that a God-justifyina aood for the fawn's suffering would likely be "seeable."* Let us call this "the reasonable seeability require- ment."4 My first article (Wykstra [1984], 87) stressed how "reasonable to believe" is to be understood:

in here requiring that it be "reasonable" for [Rowel to believe that [a divine purpose would be seeable, I do not mean to require that [Rowel believe this in any conscious or occurrent way. I mean, roughly, only that should the matter be put to [Rowel, it would be reasonable for him to affirm that the condition is satisfied: that is, no norms of reasonable belief would be violated by his believing this. This need not always involve his having, or being able to produce, an evidential or inferential justification for so believing: in some cases, this might properly be believed in a basic way. But even. ..

Stage B arose from precisely this stipulation. While basic justifiers can make a belief reasonable, they can still be defeated by inference from other beliefs. I thus continued (Wykstra [1984],87):

But even in these cases [where reasonableness derives from basic rather than inferential justifiers, if [Rowel has been made aware of good reasons for thinking a God-justifying good would not likely be seeable, then it will not be reasonable for [Rowel to believe it likely would be seeable--unless he defeats these reasons with other considerations. And in now applying CORNEA to Rowe's case, I shall provide good reasons for thinking that [a God-justifying good would not likely be seeable.

This passage thus sets forth a principle distinct from CORNEA itself, used to determine whether the reasonable seeability requirement of CORNEA itself is met. Let us call it *"the Adjunct Principle":*

If [Rowel is made aware of good reasons to think' that a God-justifying good would not likely be seeable, then conditionally (i.e. , "unless [Rowel defeats these with other considerations"), it is not reasonable for [Rowel to believe that they likely would be seeable.

Stone C, finally, puts forward a reason to think a God-justifying good for the fawn's suffering would not likely be seeable. The disparity between God's vision and ours, I suggested, is comparable to the gap between the vision of a parent and her one-month-old infant. This gives reason to think that our discerning most of God's purposes are about as likely as the infant's discerning most of the parent's purposes. And this, I claimed by further arguments, gives reason to think

that a God-justifying good for the fawn's suffering would not likely be seeable. By the adjunct principle, we can then say that, conditionally, the reasonable seeability condition is not met; by CORNEA itself, Rowe's inference thus fails.

The CORNEA critique can also be applied to the inductive inference ver- sion of Rowe's argument.

Stage A becomes: Rowe's premise (I) We see no good with J justifies his conclusion (2) There is no good with J only if it is reasonable for Rowe to believe that if there were a good with J, his noseeum situation would likely be different than (I) asserts.

StaRe B, the adjunct principle, becomes:

> If Rowe has reason to think that if there were a good With 1, his noseeum situa- tion would likely be the same as 1 asserts, then it is not reasonable for Rowe to believe the above.

Stage C, lastly, would give Rowe"reason to think" that if there were a good with J, his noseeum situation would likely be the same as 1 asserts.

Put more tersely, Stage A says that Rowe's inference from 1 to 2 works only if it is reasonable for Rowe to believe that *if* 2 *were false, his situation would likely be different than 1 says it is.* Stage B says that it will (conditionally) not be reasonable for Rowe to believe the preceding proposition if Rowe has reason to think that if 2 were false, then 1 would be expectable anyway. And Stage C says that Rowe does have reason to think that if 2 were false, 1 would be expectable anyway. This terse formulation will be most relevant to Rowe's later responses to CORNEA.

1.3 ON "RATIONAL SUPPORT"

Rowe's overall thesis is that our seeing no God-justifying good for much suffering provides "rational support" for the claim that there is no God-justifying

good served by such suffering, and hence (given his first big claim) that there is no '..
God. A great deal depends on what we take this to mean. Clearly, Rowe does not mean that noseeum evils raise the probability that there is no such good (and so no God) merely to some small degree. Rather, he is claiming that they are of great evidential weight: they suffice, he says, to make atheism *"altogether* reasonable to believe," and to render theism "an *extraordinary absurd* idea, quite beyond our belief" (Rowe [1979], 337-38). Call this "Rowe's Weightiness Thesis."

Giving a precise construal of Rowe'sWeightiness Thesis is not easy. Rowe does not mean that his noseem evidence is so weighty that no possible evidence for God could overcome it. But neither (for reasons too technical to go into here) can he mean only that it is weighty enough to make atheism entirely reasonable and theism beyond belief, if it were the only relevant evidence (so that apart from it, one would be in a total evidential vacuum on the matter).

One plausible construal of Rowe'sWeightiness Thesis is that noseeum evidence is weighty enough to "lever" a person from one justified belief-state to a "lower" one. There are three main belief-states to be considered: the state of square belief (that God exists), the state of "nonbelief" (i.e., of being "agnostic" on the

matter); and the state of square "disbelief" (i.e., of squarely believing that God does not exist). The Weightiness Thesis is then that noseeum evils are weighty enough to "lever" a reasonable person from one square state to another state.

An analogy may be helpful here. Instead of the proposition that God exists, consider the proposition that some particular husband-Michael Douglas, let us call him-has been faithful. Someone--say, his wife--might squarely believe that Michael is faithful, or she might consider this a fifty-fifty proposition (nonbelief), or she might squarely disbelieve it (i.e, squarely believe that Michael is not faithful). Now let us suppose that his wife, based on her evidence and grounds so far, is properly in one of these states; she then acquires a new piece of evidence. We now have two possibilities. Some evidence--say, finding a long blonde hair on Michael's lapel-might slightly increase the probability that Michael is unfaithful but be nowhere near weighty enough to lever a wife (if she is reasonable) from square belief to square nonbelief or even square disbelief. Other evidence-say, a videotape of Michael hot-tubbing in the altogether with another woman-might be weighty enough to lever a reasonable wife from square belief to square nonbelief, or from square nonbelief to square disbelief, or even all the way from square belief to square disbelief. Rowe's Weightiness Thesis, as I shall construe it, is then that noseeum evils are like the videotape, not like the long hair: they are weighty enough to constitute, as I shall call it, "levering evidence," suffi- cient to move one from one rational square belief-state to another (given ample but not overwhelming warrant for the initial belief-state).6

Two further points about levering evidence will aid later discussion. First, given the three main belief-states, we can distinguish several kinds of levering evidence. Levering evidence of the first and second kinds would suffice to lever a reasonable person only "one step"-from proper square nonbelief to proper square disbelief, or from proper square belief to proper square nonbelief, respectively. Levering evidence of the third kind would suffice to lever a reasonable per-' son "two steps"-from proper square belief to proper square disbelief. Clearly, evidence might be weighty enough to be of the first or second kind, but not the third. It is not clear which kind Rowe means to ascribe to noseeum evidence. If someone adducing evidence regarding Michael were to say (in Rowe's words) that it makes it "altogether reasonable" to believe that Michael is unfaithful, and indeed makes the claim that he is faithful "an extraordinary absurd idea, quite beyond belief," we would certainly construe him as claiming that it is of the first and sec- ond kinds, and perhaps even of the third kind. We shall therefore consider each of these three possibilities in what follows.

A second point concerns how beljef-states are to be understood if we suppose that the probability calculus applies to them and to relations of evidential support. Suppose a belief-state of square nonbelief toward some proposition is interpreted as assigning a probability of .5 to that proposition: the proposition is as likely true as not. What probability should then be assigned to represent square belief that the proposition is true, or square belief that it is false? There is, so far as I know, no good answer to this question. My own inclinations are as follows. On one hand, one can believe something-say, that my wife is in Grand Rapids

today-while allowing that one might be mistaken; to believe (or disbelieve) thus need not be assigning a probability of 1 (or 0). On the other hand, even a probability well above .5 falls short of amounting to belief. Consider the proposition "This nickel will not come up heads on the next two consecutive throws." There is a probability of. 75 that this is true; yet I do not *believe* it is true. If it were to come up heads on both throws, I would not say, "Oh dear, I had a false belief." If we are to assign some probability to *belief* that something is true, it must be a probability not very far from l-something well above .95, I would think. Disbelief (that is, belief in the denial) of some proposition would be assigned something well under .05.7 If we are going to try to represent belief probabilistically, we must spread the state of nonbelief, or "agnosticism," over a relatively large part of the interval between 0 and 1 (though the paradigm case would be .5), and confine the states of belief or disbelief near the endpoints of this interval. Levering evidence for atheism of the first, second, and third kinds, then, is evidence sufficient, respectively, to lever an initial belief-state of around .5 to something under .05, or to lever an initial belief-state of over .95 to around .5, or to lever an initial belief-state of around .95 to around .05. In the example above, I think our intuition is that the videotape described would be levering evidence (perhaps even of the third kind); nevertheless, it might still be defeated or outweighed by truly exceptional evidence for her husband's faithfulness.

My primary concern here will be with whether Rowe's noseeum evidence is levering evidence; this, I believe, is the most natural interpretation of his claim that it makes atheism "entirely reasonable to believe," and makes theism "an extraordinary absurd claim, quite beyond belief." We should also ask, however, whether evidence might be less than levering, but still much more than minuscule-say, weighty enough to change the tilt of agnosticism from a completely centered nonbelief (rating theism and atheism each at .5) to agnosticism with a strong tilt toward atheism (say, rating theism at only .25, and atheism at. 75). Sup-

pose we call evidence that can do this "tilting evidence." It is tempting to assume .
that if Rowe's data could be tilting evidence to this degree, it could also be levering evidence of (say) the second kind: both, after all, reduce the probability assigned to theism by about half. I shall, however, question this assumption. A third question will be whether noseeum evidence is relevant evidence at all.

2. *Rowe's Rendition and the Great Divide*

Before examining Rowe's criticism of the CORNEA critique, it is important to scrutinize his rendition of it. Though Rowe says he accepts CORNEA's basic strategy, we shall see that he omits the "burden of reasonability" that CORNEA places on the proponent. I shall then argue that this reflects a deep difference in our perspectives on defeaters, and that CORNEA has the right perspective.

2.1 ROWE'S RENDITION OF CORNEA

First consider Rowe's rendition of CORNEA as applied to the "appears formulation" of his case. Rowe says the CORNEA critique, when "put in its sim-

plest terms,"has two steps (Rowe [1984], 95ff.; Rowe [1986],237). The first step stipulates that we can go from 1 (we see no good served by the fawn's suffering) to 1.9 (there appears to be no good served by it) only if the requirement is met that:

(RI) we have no reason to think that *if the fawns suffering served a God-purposed Hood, then things would likely strike* us *in pretty much the* same *(noseeum) way.*

CORNEA's second step, Rowe says, argues that requirement R I is not met-i.e. , that we do *have* reason to think the italicized claim in R1 is true.

Rowe contrasts this two-step strategy with an alternative two-step strategy. The alternative would, as its first step, claim that we can go from (I) to (1.9) only if the requirement is met that:

(R2) we *have* reason to think that *if the fawn's suffering served same God-purposed good. then* it *would likely strike us* differently *than* it *does (i.e., differently from a noseeum way).*

(The alternate strategy would then claim, as the second step, that requirement R2 is not met-i.e., that we do *not* have reason to think the italicized claim in R2 is true.) Rowe asserts that a close reading of the text shows CORNEA's strategy to be of the first sort, basing itself on requirement R I, not R2.

But is Rowe right about this? I do not think so. For CORNEA itself, placing a strong burden of reasonability on Rowe (the proponent), says the noseeum inference works only if it is reasonable for Rowe to believe that if the fawn's suffering serves some God-justifying good, it would likely strike us differently than it does. Of the two strategies Rowe describes, only the second (not the first) comes close to preserving this burden of reasonability that CORNEA itself places on the . proponent.8 And as we shall see, this in turn affects how we interpret the expression "reason to think" in the Adjunct Principle.

Rowe performs the same surgery on CORNEA after shifting to his inductive mode. His noseeum inference is now from (P) "We see no good with J" to (Q) "There is no good with J." He again distinguishes two possible defeater strategies. One holds that the inference works only if the proponent lacks reason to believe that *if Q were not true,* p *would likely be the* same *as it is.* The second holds that an inference from p to Q works only if the proponent *has* reason to believe that *if Q were not true,* p *would likely be* different *than it is.* This precisely parallels the two defeater strategies he distinguishes in the appears mode; and here too, Rowe takes seriously only the first,9 regarding it as the essence of CORNEA. But again this is mistaken: the second strategy is closer to CORNEA, because it comes closest to placing on the proponent the "burden of reasonability" that is central to CORNEA itself.

2.2 ROWE'S UNDERLYING PERSPECTIVE ON DEFEATERS

Rowe sees CORNEA as a strategy for "defeating" his noseeurn evidence. He here begins from John Pollock's distinction between "undercutting defeaters" and "rebutting defeaters."1o Suppose (to steal Pollock's example) you are touring a

widget factory, and notice that the widgets on the assembly belt appear red. This prima facie justifies you in believing that the widgets on the belt are red. The justification might, however, be "defeated," and this in two ways. The first is by acquiring further evidence that, contrary to appearances, the widgets are some color other than red. Perhaps a worker assures you that they are really white; perhaps you then notice that they appear white when, at the end of the belt, they drop into the widget box. Such evidence might defeat your initial evidence by outweighing it: it would then be what Pollock calls a "rebutting" defeater. But suppose that, instead of this, you learn only that the belt is illuminated by strong red light (which you know makes nonred objects appear red). This new information is not evidence that the widgets are some color other than red; nevertheless, it renders you no longer justified in believing (from their appearing red) that the widgets are red. It defeats your previously sufficient justification not by outweighing it but by "under- cutting" it.

Rowe sees CORNEA as a strategy for defeating noseeum evidence in the sense of providing undercutting defeaters. This seems to me right. But how do undercutting defeaters of inductive evidence work?

To see Rowe's perspective on defeaters, we must begin with his conception of inductive justifiers. In glossing his noseeum inference as inductive, Rowe says ([1988], 123):

> we are justified in making this inference in the same way we are justified in making the many inferences we constantly make from the known to the unknown. All of us are constantly inferring from the A's we know of to the A's we don't know of. If we observe many A's and all of them are B's we are justified in believing that the A's we haven't observed are B's.

I shall refer to a premise of the sort Rowe specifies (a premise characterizing our information about our specific observed sample, e. g. , "we have tested many pieces

of copper, and all of them were conductive as the "specific premise" of an inductive argument. Rowe holds, then, that the specific premise of his noseeum argu-

ment justifies its general conclusion in the same way that all inductive premises do. But what way is this? Rowe's key claim here is that the specific premise of an induction is "in itself" justifying reason to think the conclusion is true. Consider his reply to Del Lewis, who had objected that Rowe's argument does not work unless a further premise is added (namely, that if there were a point to intense suffering, we likely would know of it). Lewis, Rowe replied ([1988], 132):

> is assuming that if p were *all we knew* relative to the truth or falsity of Q, we would not be rationally justified in believing Q. It is this claim that I am rejecting as false. (My emphasis.)

In rejecting this. Rowe is saying that p by itself--even if it were *all we know relative* to"Q -would justify our believing that Q. Nothing further is needed.

In the next section I shall criticize this "nothing-further-needed" view of justifiers. Here. note how it leads Rowe to a conception of undercutting defeaters.

Since he takes the specific premise of an adequate induction to be *by itself reason* to believe the conclusion, he holds that one cannot defeat this premise merely by showing that there is some further proposition which we should *refrain* from believing. (The induction, after all, needs nothing further.) Defeating an induction must thus be by addition rather than subtraction-that is, by adding to our belief corpus some further warranted proposition, which has a defeating relation to the induction. Rowe gives no account of this defeating relation, but all his examples are couched to express the idea that it is "by addition." The inference from "all observed pit bulls are vicious" to "all pit bulls are vicious" is, he says, defeated if we acquire the *further* warranted belief that the pit bulls we have observed were all trained for fighting. The inference from "the widgets appear red" to "the widgets are red" is defeated if we acquire a further belief that the widgets are illuminated by red light.

This conception helps us understand Rowe's surgery on CORNEA. The real CORNEA says that for Rowe's inference to work, something further *is* needed: it must be reasonable for Rowe to *believe* the further proposition that if some good did have J, then we likely would see it. Rowe's inference will be defeated if this is subtracted: take it away, CORNEA says, and Rowe's induction collapses of its own weight. This makes no sense, of course, given Rowe's "nothing further needed" conception of induction and induction-defeaters. On his conception, what should really be doing the work is the Adjunct Principle. Why not, then, consider the burden of reasonability that is central to CORNEA as vestigial-just snip it off, and not mention it to the patient? From Rowe's perspective this is an act of charity; the patient may feel differently.

2.3 CORNEA's PERSPECTIVE ON DEFEATERS

CORNEA embodies a different conception of induction and induction;- defeaters. It says that something further is needed for one to move from (P) "We see no go~ with J" to (Q) "There is no good with J": what is needed is that it be reasonable to believe that if some good did have J, then we likely would see it (instead of having the noseeum data that Rowe adduces). On this conception, we can thus defeat the inference "by subtraction"-that is, by subtracting, from the body of things it is reasonable for us to believe, the proposition that if there were a God-purposed good for the fawn's suffering, it would likely be seeable.

I believe CORNEA's conception is best, even in illuminating the examples of defeaters Rowe provides. CORNEA says an inductive inference from (P) "We see no good with J" to (Q) "There is no good with J" works only if it is reasonable to believe the proposition that *if Q.were false, then likely* p *would be false too.* This proposition is virtually equivalent (11) to the proposition that *if* p *is true, then* Q. *is likely true.* So all CORNEA really says is that premise p justifies our believing conclusion Q only if it is reasonable for us to believe that if p is true, then Q is likely true. While not earth-shaking, this does illuminate Rowe's examples. The inference from "the widgets appear 'red' to 'the widgets are red' is undercut by learning the 'further' defeating proposition about the red light. But why is this a defeater? It is because learning about the red light makes it *no longer* reason-

able for us to believe that if these widgets were not red, they likely would appear differently than they do (namely, red). The "further" proposition forces us to sub- tract, from the corpus of things it is reasonable for us to believe, the proposition identified by CORNEA itself. Similarly, learning that the observed pit bulls were trained for fighting makes it no longer reasonable for us to believe that if some pit bulls were friendly, then likely we'd have something different than the vicious data cited.

So Rowe's examples give no reason to prefer his perspective over CORNEA's. Indeed, do not his examples tell against his own perspective? Can a specific premise P really be levering evidence for Q, if we are avowed agnostics about the conditional that if p is true, then likely Q is true? If we had to suspend judgment about this conditional, would the premise by itself (so that it is, as he says, "all we know relative to the conclusionj do the job? Perhaps it could increase to some degree the probability of the conclusion, but Rowe claims it could justify believing the conclusion. This seems to me mistaken.

3. *Enhancing CORNEA: Toward a New Adjunct Principle*

Let me summarize. The heart of the real CORNEA was that Rowe's inference works only if it is reasonable (on Rowe's part) to believe that God's purposes for the evils he cites would be seeable. Rowe's inference would be defeated, then, if the critic can give good reason to think God's purposes would be "nonseeable." Hence, the Adjunct Principle:

> If Rowe is made aware of good reasons for thinking that God-justifying goods would lack seeability, then conditionally (i.e., unless Rowe defeats these with other considerations), it is not reasonable for Rowe to believe that these goods would be seeable.

This formulation, however, was seriously ambiguous. To make it more precise we must answer at least three questions. First, what meaning should be assigned to the expression "good reasons for thinking"? Second, exactly what claim must these reasons support? And third, what resources can be used in giving such reasons? My failure to be clear about these matters led to infelicities in my 1984 article, which Rowe's central objection amply exploited. I now want to acknowledge and remove these infelicities, so as to prepare the way for a reply to Rowe's central objection.

3.1 ON "GOOD REASONS FOR THINKING"

My 1984 Adjunct Principle enjoins the critic to give "good reasons for thinking" that God's purposes would lack seeability. But this is open to strong or modest interpretation. It might mean, strongly, giving reasons which justify believing that they would lack seeability. Or, more modestly, it might mean giving reasons which support their lacking seeability, so as to require suspension of belief on this matter.

It is clear, I believe, that CORNEA itself requires only the modest version. For if the critic gives reasons requiring Rowe to suspend belief about whether

God's purposes would be seeable, then the burden of reasonability required by CORNEA will not be satisfied. The stronger version would do more than CORNEA requires; the modest version is entirely sufficient.

In responding to my 1984 critique, however, Rowe interprets "reason to think" in the stronger sense. The reasons I give, he says, are "insufficient to justify the claim" that if O were to exist the sufferings in our world would appear as they do." Did he thereby misinterpret my 1984 Adjunct Principle? Probably not. In my reckless youth, it appears that instead of distinguishing the two versions, I instinctively went for the knock-out punch, trying to justify believing that God's purposes would lack seeability.12 Rowe's response was tactically correct; but my treatment of the Adjunct Principle was clearly impetuous, going beyond what CORNEA requires.

3.2. WHAT PROPOSITION NEEDS SUPPORT?

The critic, then, can defeat Rowe's inference by giving modest reason to think that God's purposes would lack seeability. But exactly what is the proposition here? There are three confusions we must avoid about this.

We can spot the first by noting that Rowe at one point objects that I give no reason to think that "the goods in virtue of which God permits most suffering" would be in the unseen future (Rowe [19841, 165). But so far as I can find, Rowe argues from the premise that many instances of suffering are noseeums (not that most of them are). By CORNEA, therefore, the critic need only give reason to think that if God exists, God's purposes for allowing many sufferings would be noseeums.

Rowe also argues from a particular evil (the fawn suffering in the distant forest). Must the critic then give modest reason to think that if God exists, it is expectable that this particular case would be a noseeum? I think not. For these particular cases are Rowe-selected incidents; and so far, Rowe has made no pretense of getting them by some method of random sampling. Rather, he picks them because they, of the evils he knows, best support his noseeum argument. If we have reason to think it expectable that God-justifying goods would be beyond our ken for many instances of suffering, then, given plausible assumptions about Rowe's ability to choose telling examples, we have reason to think this expectable for these Rowe-selected cases.

But what does "expectable" mean here? Here again are two options, making ambiguous our earlier discussions. 13 It might mean, strongly, that if God exists, there is a probability of l or very nearly 1 that many evils will be noseeums-that (as I shall put it) it is "utterly expectable" that many evils will be noseeums. Or, more modestly, it might mean that if God exists, this is as (or more) likely than not-that is, "entirely unsurprising." Which meaning, we must ask, is required by CORNEA?

I believe only the modest sense is required. For CORNEA says Rowe's induction works only if it is reasonable for Rowe to believe that *if there were God- justifying goods for all sufferings, then,* likely, *we would not have the noseeum data (many evils being noseeums) we do.* Now if we have modest reason to think that if God exists,

it is as likely as not that many evils would be noseeums, then we would have to suspend judgment about this italicized proposition. The burden CORNEA itself places on the proponent thus would not be satisfied. By CORNEA, then, modest reasons would provide an ample defeater to Rowe's inference.

If we suppose the probability calculus applies to relations of evidential support, this conclusion can be reinforced by Bayes's theorem. Bayes's theorem says that the "new probability" of hypothesis H (when evidence e is added to back- ground knowledge k) is equal to the old probability (of H on k alone) times "the relevance quotient."The relevance quotient is the theoretical expectability of e if we assume H is true, divided by its theoretical expectability if we don't assume this. That is:

$$P(H/e\&k) = P(H/k) \times \frac{P(e/H\&k)}{P(e/k)}$$

Now this may seem to imply that modest reasons are really irrelevant. Suppose Rowe faces an urn which he knows contains either 100 black balls, or a mix of 50 black balls and 50 white balls. He randomly draws a ball, and it is black. This datum, he infers, is strong evidence that the urn is the one containing the 100 black balls. We seek to defeat this by pointing out to him that his datum is "entirely unsurprising" on the alternate hypothesis. Rowe might reply by appealing to the relevance quotient. While admitting his datum is entirely unsurprising on the mixed-urn hypothesis, he might note that it is far more expectable-indeed, utterly expectable--0n the black-urn hypothesis. Plugging the relevant numbers into the relevance quotient, and making a few calculations, Rowe could then show us that if one initially rated both hypotheses at .5, his datum would alter this to rating the black-urn hypothesis twice as likely to be true as the mixed-urn hypothesis. Bayes's' theorem, he might thus urge, shows that so-called modest defeaters are quite irrelevant.*'

But this conclusion is askew. For what modest defeaters are relevant *to,* is the claim that Rowe's datum is levering evidence against theism and for atheism."' Rowe's datum does indeed (given the initial probabilities) make the black-urn hypothesis "twice as likely" to be true as the mixed-urn hypothesis. But this means only that it raises the black-urn hypothesis from .5 to .66, and lowers the mixed- urn hypothesis from .5 to .33. This is not negligible, but neither does it justify Rowe's *believing* he is facing the black urn, not the mixed urn. His datum justifies not abandoning "agnosticism," but giving a tilt to it.

Is "tilting evidence" enough to sustain Rowe's claim regarding the seriousness of noseeum suffering?15 Suppose books are being stolen from the library at Mayberry U, and that the thief must be either a student or a faculty member. Andy, the security director, believes that the thief is a student. His assistant Barney, more cynical about professors, rates as roughly equal the "faculty hypothesis" and "student hypothesis." They then find evidence establishing that the culprit is a male. Now Barney (noting that the Mayberry faculty is entirely male), urges that this new datum makes it "entirely reasonable" to believe the faculty hypothesis, and to

dismiss the student hypothesis as "an extraordinary absurd idea, quite beyond our belief." Andy rejects this: noting that half the students are also males, he points out that if the thief is a student, it is entirely unsurprising that the thief should be a male. This, he intuitively thinks, shows that the new datum is not nearly so serious as Barney makes it out to be. Bayes's theorem supports Andy's intuition.

4. *The Substantive Issue: Answering Rowe's Objection*

To show that Rowe's argument fails the reasonable seeability requirement of CORNEA itself, my 1984 article attempted-in accord with the Adjunct Principle-to provide *good reasons to think that if there were God-purposed goods for sufferings, it is expectable that these would* often *be beyond our ken.* Rowe did not think I succeeded in providing such reasons; but neither of us was entirely clear about what really needs providing. I have thus tried, so far, to answer the preliminary questions concerning, as it were, the ground rules of the inquiry. I now turn to the substantive question: do we have good reasons for thinking that if God-purposed goods exist, it is expectable that they would often be beyond our ken?

4.1 THE PARENT ANALOGY AND ROWE'S OBJECTION

By CORNEA, Rowe's noseeum argument works only if it is reasonable for Rowe to believe that if there were God-purposed goods served by all suffering, it is likely that we would have something different than his noseeum data (many sufferings serving no good we can see). Under the new ground rules, the critic needs to show we have ample reason for thinking that if God-purposed goods exist, it is expectable that they would often be beyond our ken. In 1984 and since then, I relied on the claim that if there is a being who created and sustained this universe around us, the wisdom and vision of this being would be considerably greater than our own. Given what we independently know of our cognitive limits, I suggested that the vision of such a being might well be to ours, as a parent's is to that of a one-month-old human infant. (Readers, I said, "may adjust ages and species" to fit their estimate of how close their knowledge is to omniscience.) I thus argued, by "the Parent Analogy," that if such goods exist:

> it might not be unlikely that we should discern some of them. ...But that we should discern most of them seems about as likely as that a one-month-old should discern most of his parents' purposes for those pains they allow him to suffer-which is to say, it is not likely at all.

In a subsequent article, I urged that this analogy should be construed as resting not just on God's superior vision, but also on the fact that if theism is true, our universe (and any processes of goods realization in it) is God's creation (Russell and Wykstra [1988], 145-147). The hypothesis of a Laplacean Calculator, having knowledge of the entire future of the universe but no creational role, would not have the same bearing as the theistic hypothesis, positing a creator whose vision laid the axiological foundations of our universe. To explore the import of this for the expectable character of the universe, I distinguished "shallow" from

"deep" universes. In the former, observable events are rooted in goods that are "close to the surface," so when we can see an event, we can almost always see any good it serves. In the latter this is not so, because observable events often serve deep goods. The Parent Argument, construed along these lines, holds that the dis- parity between our cognitive limits and the vision needed to create a universe gives us reason to think that if our universe is created by God it is expectable that it would be deep; this is of course reason to think that if there are God-purposed goods, they would often be beyond our ken.

4.2 ROWE'S DIAGNOSIS: ROWE'S RESfRIcnON AND THE FUTURITY OBjEcnON Rowe's criticism of the Parent Argument rested on two key moves. The

first was to impose what we might call "Rowe's Restriction." Rowe distinguishes what I shall call "Core Theism"- namely, "the view that O exists, unaccompanied by other, independent religious claims"-from expanded versions of theism, which add to Core Theism further specific claims-about, for example, an after- life, end times, salvation, and so on. Rowe then claims-invoking in support an earlier article of minel6-that to defeat his noseeum evidence, I must give reason to think that his noseeum evidence is expectable relative to the claim of Core The- ism alone.

In the paper that Rowe invokes, I did argue that one cannot defeat puta- tive evidence against a hypothesis merely by showing that this evidence is expectable on some arbitrarily expanded version of the hypothesis--that is, the hypothesis conjoined with some entirely ad hoc auxiliary hypotheses. It is not clear, however, that Rowe's restriction follows from this. Here we must distinguish two questions:

(Q 1) **Is** E **expectable from the** *mere* **hypothesis of H? That is, does** H **tau- tologously make** E **expectable?**

(Q2) **Is** E **expectable from** H *together* **with other things which we know independently of** commitment to **H, and which are not themselws adverse to** H in **relation to its rivals. That is, does** H **contingently make** E **expectable?**

Rowe's restriction supposes that a defeating strategy must be based on Q I. It is instructive, however, to compare Core Theism with core claims in science, such as "light is wavelike." Carl Hempel calls these "general theoretical conceptions": while making genuine claims, such claims are, as he puts it, "much too indefinite to yield any specific quantitative consequences."t7 Because of this indefiniteness, the core-wave hypothesis, by itself, does not imply even such rudimentary facts as that light travels in straight lines (casting shadows, etc.), a fact which does, however, follow from standard versions of the rival particle theory. Suppose a particle theorist adduces this fact as levering evidence against the core-wave hypothesis. Given Rowe's Restriction, the only way to defeat the evidence is by showing, in accord with Q I, that, *by itself,* the assumption that light is wavelike gives reason to think light travels in straight lines. In fact, however, wave theorists eventually defeated this evidence using a strategy based on Q2. They argued that

given various other things we know (not in themselves adverse to the wave hypoth- esis), the most plausible specific (or "expanded") versions of the wave hypothesis did make expectable that light should travel in straight lines. A similar strategy is, I believe, appropriate in evaluating Rowe's noseeum evidence.

Rowe's second move is to argue that my Parent Analogy rests on an assumption which, given this restriction, is gratuitous. I begin, he says, from the premise that

(I) O's mind (being omniscient) grasps many goods beyond our ken and infer

that

(2) It is likely that the goods for which O permits many sufferings are beyond our ken.

Now Rowe grants that given Core Theism, 1 is very likely if not certain. But 2, he says, does not follow, for (Rowe [1984],98):

the mere assumption that O exists gives us no reason whatever to suppose either that the greater goods in virtue of which he permits most sufferings are goods that come into existence far in the future of the sufferings we are aware of, or that once they do obtain we continue to be ignorant of them and their relation to the sufferings.

The key to Rowe's diagnosis lies in his rationale for accepting (I): he takes (I) as likely or certain (given Core Theism) just because God, if existent, can see the distant future (and goods in it) in a way we cannot. But to get from this to (2) we need a further assumption: that the goods for which God allows many *known* (and hence current or past) sufferings are goods in this unknown (to us) *distant future.* Call this "the Futurity Assumption." Rowe's objection, then, is that Core Theism alone, "the mere assumption of O's existence," gives us no reason to think the Futurity Assumption is true. I thus is not reason to think that God-purposed goods for known evils would often be beyond our ken, and the Parent Analogy fails.

Rowe did not think my Deep Universe Enhancement helped here (Rowe [1991], 76-79). The distinction between deep and shallow universes, he says, is purely epistemic--between universes where "it is understandable to us what the goods are that justify God in permitting El [the fawn's suffering] and E2 [a case of moral evil], and a world in which we are left without a clue." (He here prefers "morally transparent" and "morally obscure" to my honorific-sounding "shallow" and "deep.") Rowe says:

Wykstra suggests that God may have had a choice about El and E2. On one hand he could have produced a world in which the goods for which he permits these evils are within our ken. ...On the other, he could have produced a world in which the goods for the sake of which he permits these evils are beyond our ken. Faced with these alternatives, it is highly likely, so Wykstra thinks, that he would choose the latter. Why? (78)

Rowe underscores this question with an argument concerning epistemic suffering. It is clear, he says, that if God allows the fawn's suffering for the sake of deep goods, there will be additional suffering on account of our inability to see God's purpose for it. For this reason, the goods that justify this particular suffering in the deep world would have to be better goods than those which do so in the shallow world. Why then is it so likely that God, faced with the alternative of allowing the particular evil for a good we can see, and allowing it (and the extra second-order suffering) for the sake of a good we cannot see, would choose the latter? Rowe laments: "UnfortunatelyWykstra doesn't tell us" (Rowe [1991], 79).

I have two misgivings about this formulation of my argument. It is right, I think, that I did not seek to show that God's choosing the latter is likely; but this is because I left open whether this is a matter of divine choice. We need not here presuppose a voluntarist view of God's creation of a deep rather than shallow universe. One can ask how expectable it is that light should travel in straight lines, if light is made of particles rather than waves, without supposing photons have a choice in this matter. So also we can ask how expectable it is that a universe created by God would be deep, without supposing that this is a matter of divine choice (rather than a result of God's nature). Secondly, even if God does choose in a general way between creating a deep or shallow universe, it does not follow that God has a choice about whether to allow particular Rowean evils for deep or for shallow goods. It may be that certain evils are such that God would allow them only in universes containing goods that are (relative to human cognitive faculties) deep goods; God would then never face the alternatives that Rowe portrays God as choosing between.

I propose, then, to avoid voluntaristic assumptions in formulating the question of what is expectable on theism. This done, is Rowe right in his basic claim that I do not give reasons to think that if God exists, a deep universe is expectable? Well, I do try to give such reasons: that is the point of the Parent Analogy. What Rowe means, no doubt, is that this argument fails. His adamancy about this continues to rest, I believe, on his earlier diagnosis. The Parent Analogy fails, even with the Deep Universe Enhancement, because to get from (1) to (2) one also needs to establish (within the constraints of Rowe's Restriction) the Futurity Assumption. And, says Rowe, "the mere assumption that God exists [Core Theism] gives us no reason whatever to suppose" that the Futurity Assumption is true (Rowe [1986],238).

4.3 THE FUTURITY ASSUMPTION REEXAMINED

But is this SO? Rowe's Restriction, I have already argued, is questionable; a proper inquiry must ask whether, using as resources other things we independently know, we have reason to think that if God exists, it is unsurprising that ours would be a deep universe. Here, as in my 1984 article, I shall draw upon one resource only. In asking whether we should expect a deep or shallow universe relative to Core Theism, we are entitled to appeal to what we independently know of our own cognitive capacities.

Suppose we find, for example, that humans cannot see, by unaided pow-

ers, what life will be like N years from now. The question would then be whether we have reason to think that God-purposed goods for sufferings would fall within an N-year horizon. Of course, that this should be the horizon of our cognition does not follow from Core Theism alone (any more than it follows from naturalistic materialism). We might be able to imagine creatures who are like ourselves in other respects, but who have far greater cognitive horizons. But to defeat Rowe's induction, we must ask how expectable it is that God-purposed goods would be within our ken, given what we actually know of our cognitive limits. So if we had reason to think that God-purposed goods would often be beyond an N-year horizon, we have reason to think they would often be beyond our ken.18

Given what we actually know of our cognitive limits, then, is it true that Core Theism gives us "no reason whatever" for thinking that God-purposed goods would often lie in the distant future? Suppose one began as an atheist holding some form of naturalism; one then became a theist, embracing Core Theism. If Rowe is correct, one would have no more reason than before to think that if an evil serves some outweighing good, this good would lie in the distant future. But is this so? While there are different versions of naturalism (Sartrean, Russellian, etc.), depending on what other philosophically significant doctrines one adds to it, a central tenet of "Core Naturalism" will surely be Bertrand Russell's claim that the life of humans, fawns, et al.

> is the product of causes which had no pre-vision of the end they were achieving. ...Man's origin, his hopes and fears, his loves and beliefs, are but the outcome of accidental co-locations of atoms. ...All the labor of the ages, all the devotion, all the inspirations, all the noonday brightness of human genius, are des- tined to extinction in the vast death of the solar system. ...The whole temple of Man's achievement must be buried beneath the debris of a Universe in ruins ...as omnipotent matter, blind to good and evil, reckless of destruction, rolls on its relentless way. t9

Would shifting from Core Naturalism to Core Theism, then, increase the probability that if some current suffering serves an outweighing good, it would lie in the distant future?

Here we may recur to the ParentAnalogy. If Core Theism is true, the universe itself is the product of God's design, much as the "life situation" of a child is the product of her parent's design. Suppose, then, we are considering an incident of suffering in the life of a child, and the question is raised whether, if there is a good justifying the allowing of this suffering, this good is at all likely to lie in the considerable future. Should our answer to this question be affected by our view as to whether the child's life situation is the result of the planning of parents rather than mere chance? And if so, should it also be affected by our estimate regarding the parents' intelligence, character, and ability? Let us consider these in turn.

As regards intelligence, it is evident that if the child's situation be due to parents of very mean intelligence---or, what is more extreme, the product of no intelligence at all, but instead merely chance--then it becomes correspondingly more unlikely that the rationale for the said event lies in the considerable future.

If the child has parents whom we judge to be half-wits, barely capable of making provision for the day's meals, it will not be thought credible that in some treatment of the child there is served the distant end of the child's university education. (This is more the case if we suppose that the child has no parental superintendence but lives as a young Crusoe, subject only to the elemental forces of nature.) But as we increase the acuteness of the parents' intelligence with regard to their grasp of goods realizable in the considerable future, it becomes correspondingly more likely that in some of their actions toward the child, such goods are served by events in the child's current life situation. So also, insofar as we credit nature with a governor at all, and proportionately as we esteem this governor capable of grasping goods in the considerable future, we *increase* the likelihood that such future goods often have a bearing on current allowings.

But it is not merely intelligence that must affect our judgment here. Parents with the most acute grasp of goods realizable in the child's future might nonetheless show a defect of character, as not to care about these future events in their child's life. Such defect lies not in intelligence but in that common prejudice with respect to the present which treats future events as unreal merely because they are remote. Insofar as we judge the parents so limited, we also decrease our reason to believe that in some present arrangement for their child, their rationale lies in the considerable future. Conversely, insofar as we credit them with unprejudiced and benevolent caring for the future, we increase the likelihood that in many of their present arrangements, contingencies regarding future goods playa significant role.

Thirdly, we might credit the parents with intelligence and with impartial care for the future, and yet deem them to have such limited means at their disposal as to make it unlikely that future goods shape their current dispositions: In some circumstances, parents are barely able to provide for the child's welfare for the coming day; they are wanting in power or ability to act in ways that will intentionally shape events in the considerable future. Insofar as parents are deficient ~ this regard, we have less reason to think that some current suffering is for the sake of goods in the distant future. Conversely, insofar as we credit them with greater power to act efficaciously with respect to future contingencies, we increase the likelihood that in some of their present arrangements, such future goods playa determinative role.

Thus the likelihood that many treatments of the child are owing to consideration of goods in the considerable future will depend upon three things concerning the parents: their cognitive grasp of future goods, the regard they give to the temporally remote, and their power to shape future events by present actions. Analogously, if our universe is the result of the blind atomic processes, which have no grasp of the future at all, which are entirely indifferent to both remote and immediate goods or evils, suffering or happiness, and which have no power to act intentionally at all, then it is extraordinarily unlikely that many sufferings will serve outweighing goods at all, much less that if they do so, such goods would often be in the distant future. The likelihood of this increases if the world is the result of some being with intelligence and benevolence, and it increases more as

we raise our estimate of this being's grasp, caring, and ability with regard to the realization of future goods.

To summarize, then: Rowe's central objection was that Core Theism gives "no reason whatever" to think that the goods served by current evils would often be either in the distant future or for some other reason beyond our grasp. I have argued that this is false. Accepting Core Theism greatly increases our reason to think such goods would often be in the distant future;[20] it thus does give us a great deal more than "no reason whatever" to think these goods would be "deep" goods, often beyond our ken.

Perhaps Rowe meant only to claim that Core Theism provides no reason whatever capable of *justifying* belief that the goods for which God allows current evils would often be deep goods. But this claim, I have shown, is not relevant to defending his noseeum case against a correct deployment of the real CORNEA. CORNEA says that Rowe's noseeum case works only if it is reasonable for Rowe to believe that God-purposed goods would not be deep goods. To defeat Rowe's case, therefore, the critic's reasons need not justify believing these goods would be deep; they need only be enough to require Rowe to suspend belief on whether the goods would be deep.

And do the reasons I have given require Rowe to suspend judgment on this matter? This will depend, of course, on whether Rowe can offer much weightier reasons to place on the other side-whether, that is, he thinks he has much weightier arguments that if Core Theism is true, the goods served by suffering would be not be deep. So far, however, Rowe has not tried to provide such reasons. His surgery on CORNEA and his general conception of defeater~together with infelicities in my earlier deployment of CORNEA-have led him to try to deflect CORNEA without giving reasons that justify believing such goods would not be deep. I have shown that the real CORNEA, correctly deployed, does not allow him this luxury. He may think the reasons I offer do not come to much. But it doesn't take much to beat nothing.[21]

5. *Conclusion*

If Rowe's inductive argument from evil is a retreat from the earlier attempted deductive arguments from evil, there are now signs of a further retreat, to "abductive" arguments from evil justifying atheism by way of "inference to the best explanation." On this way of thinking, there are two broad accounts of noseeum evils. One is the naturalist's account: we see no point to such evils because there is no point; they are pointless events in an indifferent universe. The other is the theist's account: behind the universe is God, who cares for us (and sparrows and fawns as well); we cannot, however, see the purposes for which God allows many of the things he does. The Christian specification of theism, in particular, promises no insight into God's purposes, but assurance of his love.

Rowe is right, I think, that in explaining our inability to see a purpose for much suffering, Core Naturalism has an edge over Core Theism. Core Naturalism makes the inscrutability of much evil utterly expectable, while Core Theism makes

it, so far as I can now tell, not especially surprising. The question is how much this counts against theism. When some datum is utterly expectable on one hypothesis and not especially surprising on its rival, call it "unbalanced" with respect to the two hypotheses. What evidential force do unbalanced data have? In particular, do unbalanced data have levering power?

I now want to return to my earlier point that there are three questions here, not one. Can an unbalanced datum rightly lever one from square belief to square disbelief? From square belief to square nonbelief? And from square nonbelief to square disbelief? One might think that Bayes's theorem implies that if an III unbalanced datum can do the third of these, it can at least do the second. For as we saw, Bayes's theorem says that for any evidential datum e, the new probability of the hypothesis is equal to its initial probability multiplied by a definite fraction, the Keynesian "relevance quotient." Suppose that e can lever one from square agnosticism (rating theism .5) to about half of this (rating theism at, say, about .25). Since rating theism at .25 is nowhere near square atheism, this is actually weaker than levering evidence of the third kind; still, it means e has a relevance quotient of about. 5, SO must not evidence e also be ample to be levering evidence of the second kind-ample to lever square theism (at, say, .95), to square agnosticism (about .5)?

The answer is no, for the relevance quotient is itself a function of the initial probabilities of the hypothesis. In its properly expanded form, the denominator of the relevance quotient is a weighted summation of the expectabilities of the data on each hypothesis. If there are N possible hypotheses,

$$P(H/e \ \& \ k) = P(H/k) * \left] \frac{P(e/H \ \& \ k)}{En/i=1 \ P(e/Hi \ \& \ k)*P(Hi/k)} \right]$$

We can illustrate the result as follows. Suppose Rowe faces an urn, and knows that either *(H1)* it contains 1OO black balls, or (H2) it contains a mix of 20 black balls and 80 white ones. He randomly picks a ball, and it is black. How much does this new datum disconfirm H2? The expanded form of Bayes's theorem yields the following answers. Suppose both hypotheses had initial ratings of .5. The relevance quotient, a little calculation shows, 22 is then .333, so the new datum lowers the probability of H2 from. 5 to about .17-producing, as it were, a state of non- belief with a serious tilt toward atheism. Suppose, however, that one initially had evidence making H2 somewhere nearer a proposition it is reasonable to believe-- suppose its initial probability were. 99. If the relevance quotient were still l/3, the datum would now cause our confidence to plummet from .99 to .333. However, Bayes's theorem tells us the relevance quotient is now nowhere near .333. It is, a little calculation will show, 23 instead about .96; the datum thus would only reduce the probability from .99 to about .96.

There are lessons for both believers and nonbelievers here. Believers, if they find that noseeum data give reason to reduce their confidence only a little, might suppose these data should not weigh heavily with nonbelievers either. And

nonbelievers, finding that the data make their half -belief plummet nearly to disbelief, might suppose it should take a similar cut from the theist's confidence. If the probability calculus applies to relations of evidential support, then both are mistaken, for as we have seen, unbalanced evidence is like unjust taxes: the less you start with, the bigger a cut it takes.

Failing to see this creates dangers for both sides, but the greater danger is perhaps for nontheists. Seeing how such data cause half-belief to plummet could lead the agnostic to neglect inquiry into the grounds for theism: "Even if I found enough evidence to make theism 99 percent sure, noseeum data would rationally cut this down to 40 percent confidence. . .so what does it matter?" But this, we have seen from Bayes's theorem, is wrong. Unbalanced evidence does not tell against belief nearly as much as it damages half-belief. To overlook anything theism has going for it-by, say, neglecting to make a sincere experiment of faith with the- ism in its most plausible specification&-is thus dangerous.

Perhaps this lesson of Bayes's theorem calls to mind Jesus's words: "To him who has, more will be given; to him who has not, even what he thinks he has will be taken away." If this seems like unjust taxes, we must also add his other promises: God will not quench a smoldering wick, and "Blessed is the one who hungers and thirsts. ..." Is it to those who have hunger, then, that more is given? Give us this hunger, Lord, that we may be satisfied.24

NOTES

I. To bring out the issues that concern us, I simplify Rowe somewhat, form~- lating his argument in terms of"God-justifying goods" rather than "God-sufficing goods." The first are goods actually purposed by God, justifying his allowing evil e; the second are goods sufficient to justify God in allowing e, if there is a God, and they were his purpose for allowing e. Confusions about the relations between the two formulations lie behind objections by Richard Swinburne, "Does Theism Need a Theodicy?" *Canadian Journal of Philosophy* (1988); Bruce Russell, "The Persistent Problem of Evil," *Faith and Philosophy* 6 (1989); Daniel Howard-Snyder, "Seeing Through CORNEA," *International Journal for Philosophy of Religion* 32 (1992); and others. I analyze these confusions in "The 'Inductive' Argument from Evil: A Dialogue" (coauthored with Bruce Russell), *Philosophical Topics* 16 (1988): 133-60. Rowe now endorses my analysis, and would not, I think, reject the reformulation of his argument in terms of God- justifying purposes.

2. The principle of credulity is discussed by Richard Swinburne in *The Existence of God* (Oxford: Clarendon Press, 1979),254-76. I note one defect in Swinburne's formulation in "The Humean Obstacle to Evidential Arguments from Suffering: On Avoiding the Evils of 'Appearance,'" *International Journal for Philosophy of Reliaion* 16 (1984), section 2.3. Rowe discusses the principle in "Religious Experience and the Principle of Credulity," *lnternational Journal for Philosophy of Religion* 13 (1982),85-92, and uses it in "Ruminations about Evil," *Philosophical Perspectives* 5 (1991),71-72.

3. Rowe does not characterize such premises in a terribly exact way, and neither shall I. As Ken Konyndyk pointed out to me, "all observed copper" really should be "all observed copper insofar as we have tested and checked on the matter."

4. I have adjusted these quotations slightly, substituting "Rowe" for "H," "seeability" for "epistemic access," and "the reasonable seeability condition" for "the epistemic access condition."

5. We shall later see a crucial ambiguity in this formulation of the adjunct principle.

6. This need not mean it could do so for any evidence justifying the initial state, however.

7. In an earlier version of this essay, I at one point indicated that giving theism a likelihood of "say, .17" would qualify as square atheism. Little of substance turned on this, but it now seems to me wildly high. Someone who thought there is a .17 chance that a plane would crash is nowhere near having a square belief that it will not crash. In ordinary contexts, the things we typically squarely believe each day (say, that one is wearing shoes and socks, that it is cloudy outside, etc.) are, in effect, rated so near to I as to make no practical difference.

8. To be sure, neither strategy is put in terms of what is "reasonable to believe," referring instead to what one has "reason to think." In conversation, however, Rowe indicated that he had taken these as interchangeable.

9. The manuscript of Rowe's "Evjl and Theodicy," *Philosophical Topics* 16 (1988), first enunciating his J mode, was read at Calvin College in 1987. He there stated that he took the first defeater strategy to be a transposition of R1 (his rendition of CORNEA 's first step) into the J mode. I suggested the possibility of a more modest defeating strategy, which Rowe acknowledged in note 7 of that paper and note 15 of his "Ruminations about Evil," *Philosophical Perspectives* 5 (1991). Only later did I see the relation of this suggestion to the reasonable seeability requirement of CORNEA itself.

10. See John Pollock, *Knowledge and Justification* (Princeton: Princeton University Press, 1974), 42ff. and *Contemporary Theories of Knowledge* (Totowa: Rowman and Littlefield, 1986), 48ff.

II. As Del Ratzsch pointed out to me, the relation between these is not straightforward in S5. Both the location of the operator "likely" and the in1port of the subjunctive character would need to be reckoned with in sustaining the claim that these are "equivalent." I believe that this claim, or a close approximation to it, can be sustained; the term "vjrtually" is meant to cover the finesses this will take.

12. This impetuousness went with another; I urged that the evidence Rowe cites does not even "weakly" disconfirm theism. *"

13. In introducing CORNEA, for example, I gave three cases where putative data against various hypotheses are undermined by the fact that if H were true, these very data would be expectable. One case involves looking through the door of a cluttered room for a table; not seeing the table does not justify thinking none is there because if one were there, it is still expectable one would not see it. (See "The Humean Obstacle to Evjdential Arguments from Suffering," 84.) "Expectable" here would clearly not mean "has a probability of 1 or nearly 1." Similarly, Rowe at one point, in "Evjl and the Theistic Hypothesis: A Response to Wykstra," *International Journal for Philosophy of Reliaion* 16 (1984): 99, says that the fawn's suffering will not disconfirm a hypothesis on which the fawn's suffering *"miaht well* appear as it does": "might well" seems somewhat weaker than "utterly expectable."

14. But in "The Humean Obstacle to Evjdential Arguments from Suffering," I recklessly tried to argue that Rowe's evidence is not even weakly disconfirming evidence against theism. To show this, one would have to show the evidence has a probability of l or very close to 1 on theism.

15. A deeper problem is that different types of "improbabilities" are involved in urn cases than in worldview and scientific hypotheses; it is by no means clear that Bayes's theorem applies to both. In urn cases the in1probability of drawing a given ball is statistical, based on ratios in population. Consider, in contrast, Newton's 1687 theory of gravitation, which as critics noted could not explain why all the planets orbit the sun in the same

direction and very nearly the same plane. It is not that it predicted some *other* arrangement; rather, it was indifferent to the fact, giving no reason to expect it over thousands of other conceivable arrangements. However, a main rival to Newton's theory, Huygens's vortexaether hypothesis, did predict common directions of orbits. Since Newton's theory is utterly indifferent to the fact, does it make the fact utterly improbable, just like drawing a white ball out of an urn containing one white ball and a thousand black ones? If so, we should, by Bayes's theorem, treat the fact as massive levering evidence against Newton's theory. Neither Newtonians nor vorticists did treat it this way: that Newton's theory *leaves* the fact improbable (by being indifferent to it) is not the same as its *making* it improbable. Perhaps Bayes's theorem itself casts light on why this is so. Any significant theory, true or false, is indifferent with respect to a great many striking facts, *some o*f which its rivals are likely to make expectable. That a theory leaves some facts improbable that a rival predicts is thus what we should expect even if the theory is true: even along Bayesian lines, it is not levering against the theory.

16. "Difficulties in Rowe's Argument for Atheism, and in One of Plantinga's Fustigations against It," read on the *Queen Mary* at the Pacific Division Meeting of the APA, 1983. This paper successfully answered Rowe's first (and never published) objection to CORNEA. Consider, Rowe had objected, any genuine disconfirming evidence E against any hypothesis H. Using CORNEA, the proponent of H can urge that E *does* not disconfirm hypothesis H' , comprising the conjunction of H and E; but since H' entails H, it follows by a well-known theorem of the probability calculus that E cannot then disconfirm H either. I showed that "Rowe's reduction here rests on an equivocation between two senses of "disconfirm.- While E does not dynamically reduce the probability of H' as it does H, H' will nevertheless be (statically) as improbable on E as H, for H' starts off much lower due to its increased content. In his reply to this paper, Rowe cited my analysis as the basis for his claim that the theist cannot just "do a little expanding- to get rid of worrisome evidence.

17. Carl Hempel, *Philosophy of Natural Science* (Englewood Cliffs: Prentice-Hall, 1966), 26.

18. I am here addressing the specific argument that Rowe gives from noseeum evidence, not any argument that might be given from such evidence. This reply would not be apt if someone were to argue that if God exists, he would give us faculties ample to grasp all goods served by current sufferings, out of regard for our potential bewilderment. But Rowe's argument is supposed to be a straightforward induction, like that from "no copper we observe has insulativity" to "no copper has insulativity."

19. Bertrand Russell, "A Free Man's Worship" *Why I Am Not a Christian* (New York: Simon and Schuster, 1957), 107.

20. Of course, it might also be argued that core theism gives us reason to think that such goods would often be beyond our ken for other reasons than their futurity. Moral freedom is a difficult thing to understand; if God has given it to us, it might be hard both to see this and to see what our meaningful exercise requires in the way of God's permitting or moral evils. How much could God prevent us from carrying out evil intentions without jeopardizing freedom? If God exists, it might be hard for us to fathom even those goods which he has woven into the fabric of our current universe.

21. Rowe does claim in "Ruminations about Evil," *Philosophical Perspectives* 5 (1991), 78-79, that a good deal of suffering in this world is occasioned by the fact that we see no good that would justify God in allowing the fawn's suffering. He does not, however, deploy this as justifying reason to think that God would make a deep universe, but only to heighten the need for me to tell why God would choose a world in which the goods that justify El or -1 are deep goods, rather than shallow goods. This rests on the misunderstanding of my position already discussed. I do not see how this argument could be redeployed as a good reason for thinking God-purposed goods would usually be within our ken, but I should be happy to see Rowe give it a run.

22. The relevance quotient is then .2 divided by the quantity .5 times I, plus

.5 times .2.

23. The relevance quotient is now .2, divided by the quantity .01 times 1, plus .99 times .2.

24. For help with this chapter, I wish to thank students Mark Cullison and Ray VanArragon, my colleagues in Calvin's Philosophy Department, Martin Curd, Richard Gale, Daniel Howard-Snyder, and J. L. Schellenberg.