Philosophy of Religion **29:** 159–174, 1991.

An atheological argument from evil natural laws*

QUENTIN SMITH
Department of Philosophy, Antioch College, Yellow Springs, OH 45387

1. Prologue

Not long ago I was sleeping in a cabin in the woods and was awoken in the middle of the night by the sounds of a struggle between two animals. Cries of terror and extreme agony rent the night, intermingled with the sounds of jaws snapping bones and flesh being torn from limbs. One animal was being savagely attacked, killed and then devoured by another.

A clearer case of a horrible event in nature, a natural evil, has never been presented to me. It seemed to me self-evident that the natural law that *animals must savagely kill and devour each other in order to survive* was an evil natural law and that the obtaining of this law was sufficient evidence that God did not exist. If I held a certain epistemological theory about "basic beliefs", I might conclude from this experience that my intuition that *there is no God co-existing with this horror* was a "basic belief" and thus that I am epistemically entitled to be an atheist without needing to justify this intuition, But I do not hold such an epistemological theory and believe that intuitive atheological beliefs, such as the one I experienced (and the corresponding intuitive theological beliefs, such as *that God is providentially watching over this gruesome event*) require justification if they are to be epistemically warranted. The following sections of this article present a justification for the atheological intuition I

* I should like to thank Keith Chrzan, P.G. McGrath, Susan Ament Smith and an anonymous referee for this journal for helpful comments on an earlier version of this paper. I should also like to thank two anonymous referees for *Philosophy and Phenomenological Research* for extensive and brilliant criticisms of an earlier and very different version of this paper; many of the improvements in the present version were motivated by their criticisms.

experienced on that dark night. My justification will consist mostly in providing reasons to believe premise (3) in the following probabilistic argument

(1) God is omnipotent, omniscient, and omnibenevolent.
(2) If God exists, then there exist no instances of an ultimately evil natural law.
(3) It is probable that the law of predation is ultimately evil.
(4) It is probable that there exist instances of the law of predation.

Therefore, it is probable that

(5) God does not exist.

2. The definition of an ultimately evil law

I shall assume the Armstrong-Tooley-Dretske[1] theory that laws are relations among universals and have the form, in the simplest cases, of

(L) N(F,G)

where N stands for nomic necessitation and F and G are universals that are related by the relation of nomic necessity. (L) states that *being F* nomologically necessitates *being G*. I shall assume with Tooley (and against Armstrong) that there are uninstantiated universals. But I shall assume, in opposition to Armstrong, Tooley and Dretske, and with Kripke and Putnam[2] that some laws are logically necessary (in Plantinga's sense of broadly logical necessity[3]; hereafter by "logically necessary" I mean "broadly logically necessary"). Examples of logically necessary laws are the laws that water is H_2O and that tigers are animals. All the laws I discuss in this paper are cases of laws that (some) essentialists would regard as logically necessary, so I shall hence forth talk of the necessity of laws as logical. Accordingly, the laws I shall discuss have the form, in the simplest cases, of

(L') □ (N(F,G)) (In every logically possible world, *being F* nomically necessitates *being G*.)

I shall assume, thirdly, that there is a distinction between the holding (obtaining) of a law and its instantiation. If a law □ (N(F,G)) holds but is not instantiated, then it is true both that there is nothing that is F and that

for any merely possible world W and for anything x, if x is F in W, then x is G in W. Assuming Newtonian physics, the first law of motion holds but is uninstantiated; there are no bodies uninfluenced by external forces and therefore no uninfluenced bodies that continue in a state of rest or uniform motion; but if there were such bodies, they would continue in such a state.

Let us consider the law of predation. I shall call this law E, such that

(E) □ (N(F,G)),

where F is the relational property of *obtaining nourishment,* and G the relational property of *savagely killing and devouring another animal.*[4] Each possible instance of this law is an event which (assuming J. Kim's definition[5] of events) contains constituent substances and relational properties and times of the sort contained in the set

(S) {the animals x_1 and x_2, the relational property of *savagely killing,* the relational property of *obtaining nourishment,* the time t}.

The event-schema (S) is a schema of a complex event that consists of other events as proper parts. One such proper part is an event-type of the form *x_1's being nourished at t.* An event of this sort may be a tiger as exemplifying the relational property of *obtaining nourishment at time t.* Now this event, I concede, is intrinsically good; that is, this event, considered by itself (apart from its relations to other events that are good or evil) is good. And another part of an event of the sort schematized in (S) may be the less complex event consisting of a certain zebra as exemplifying the relational property of *being savagely killed at the time t.* This event, considered by itself, is evil. When I say "considered by itself", I mean this strictly, so that the statement "the zebra's being savagely killed is good since the zebra was suffering severe agony from a broken leg and it is good that the zebra be put out of its misery" counts as considering the event *the zebra's being savagely killed at t* in relation to another event that has negative value, namely, *the zebra's suffering agony from a broken leg at t.*

Now all events of the type schematized by (S) consist of two events of the above-illustrated sorts, such that we have the true premise

(6) Each possible instance of E, considered by itself, is partly good and partly evil.

Given the ethical premise

(7) For any complex event A, if A is partly intrinsically good and

> partly intrinsically evil, then A is *as a whole* intrinsically evil if and only if its evil part outweighs its good part,

it follows that each instance of E is as a whole intrinsically evil if the negative value of the prey's being savagely killed outweighs the positive value of the predator's being nourished. But I shall not make this assumption.[6] That is, I shall not assume that each or even any instance of E is over-all intrinsically evil. The argument that E is ultimately evil can be made even if it is assumed that each possible instance of E is as a whole intrinsically good.

The key notion is that of being intrinsically good but ultimately evil, which may be partially defined for laws as follows. A law L′ is overall intrinsically good but ultimately evil if the following three conditions obtain:

(i) Each possible instance of L′ is over-all intrinsically good.
(ii) In each possible world in which L′ is instantiated, the intrinsic evil of the aggregate of the immediate and remote causes and effects of the instances of L′ outweighs the intrinsic good of the aggregate of the instances of the law in that world. (God or God's creative activity is meant to be excluded from the mentioned aggregate of causes.)
(iii) In each world in which L′ is instantiated, L″'s instantiation is not necessary to prevent the occurrence of an evil whose negative value is greater than the negative value of the aggregate composed of the instances of L′ and their causes and effects.

However, I shall not assume that the law of predation meets this three-part sufficient condition of being ultimately evil. For example, I shall not assume that the aggregate of the actual instances of the law of predation is such that its over-all positive value is outweighed by the negative value of the aggregate of the actual causes and effects of these instances. Indeed, I shall concede that it is actually the case that the aggregate of the causes and effects of the instances of E has an over-all positive value. This concession is not far-fetched, since some of the members of this aggregate include events in human life, for any event in human life that has a cause is caused, at least remotely, by some instance of E. (A necessary causal condition of the evolution of human beings is the operation of E, assuming the necessity of origins.)

The argument that the law of predation is ultimately evil is based on a different sufficient condition of ultimate evil, a condition that has not been discussed in the literature on the problem of evil but that is nonetheless crucial to the problem. This condition has a complicated definition but it shall become clearer once I provide an illustration of it. A law L′ is over-

all intrinsically good but ultimately evil if the following eightfold condition is met:

(i) Each possible instance of L′ is over-all intrinsically good.
(iii) In each world in which L′ is instantiated, L′'s instantiation is not necessary to prevent the occurrence of an evil whose negative value is greater than the negative value of the aggregate composed of the instances of L′ and their causes and effects.
(iv) In some or all possible worlds in which L′ is instantiated, the aggregate of the immediate and remote causes and effects of the instances of L′ is over-all intrinsically good.
(v) Each possible instance of L′ is partly intrinsically evil.
(vi) For each intrinsically good part g of each instance of L′ (in any world W′ in which L′ is instantiated), there is a counterpart g_c of g in another world W″, such that g_c is at least as intrinsically good as g and is a part of an instance of a different law L″.
(vii) Necessarily, no intrinsically evil part of e of any instance of L′ has a counterpart e_c that is a part of an instance of the mentioned law L″.
(ix) Necessarily, the part of each instance of L″ other than the counterpart g_c is either intrinsically good or significantly less intrinsically evil than the evil part e of any instance of L′.
(x) There are two possible worlds W′ and W″ that satisfy (vi) and the following four conditions: (a) L′ is instantiated in W′ but not in W″, (b) L″ is instantiated in W″ and W′, (c) of all the worlds in which L″ but not L′ is instantiated, W″ is the most similar to W′, and (d) the positive value of the aggregate of all the causes and effects of the instances of L″ in W″ is greater than or equal to the positive value of the aggregate of all the causes and effects of the instances of L′ and L″ in W′.

I include (iv) to emphasize the distinction between the eightfold sufficient condition (i)–(x) and the threefold sufficient condition (i)–(iii).

The complex condition (i)–(x) involves the notion of a counterpart. An event x is a counterpart of an event y if the constituent substance of the event x is a counterpart of the constituent substance of the event y, and x exemplifies a property that is a counterpart of the property y exemplifies. A substance S_1 is a counterpart of a substance S_2 if S_1 has similar macroscopic properties to S_2 but some different microscopic properties, e.g. DNA structure. A property F_1 of S_1 is a counterpart of a property F_2 of S_2 if F_1 (a) is a species of the same genus of properties as F_2 and (b) F_1's exemplification by S_1 serves the same role or function in S_1's existence as F_2's exemplification by S_2 has in S_2's existence. (I do not claim this is the

only way to define partially "counterpart", merely that it is the only way needed for my argument.) Take the event consisting of the nourishment of a certain tiger at time t. There is some possible counterpart to the tiger that looks just like a tiger (same shape and size, striped, etc.) but which has different DNA than the tiger, such that the tiger-counterpart's DNA programs the tiger-counterpart to be nourished by vegetables rather than by meat. Given that a tiger's DNA is essential to it, these counterparts are not tigers but some other species. The tiger's property of *being nourished by meat* has its counterpart in the tiger-counterpart's property of *being nourished by vegetables;* these two properties are species of the genus *being nourished by some food* and their exemplification serves the same function or role in the lives of the tiger and tiger-counterpart (namely, that of providing chemical fuel needed to go on living).

3. The atheological argument

We may now proceed to the crucial premises of our atheological argument. There is some merely possible world W such that

(8) For each predator that exists in the actual world, there is a vegetarian counterpart in W.
(9) For each actual event g of a predator being nourished, there is an event g_c of its counterpart being nourished in W, such that g_c is at least as intrinsically good as g.
(10) For each actual instance of the law E of predation, there is an instance in W of the law V of vegetation-nourishment (being nourished by a vegetable).
(11) E is instantiated in the actual world but not in W and V is instantiated in both worlds; W is the world most similar to the actual world, consistent with this nomological difference.
(12) Each instance of V also contains an event involving an animal *taking hold of and eating a vegetable,* and each such event is either intrinsically good or significantly less intrinsically evil than any event of a predator *savagely killing and devouring another animal.*
(13) The aggregate of all causes and effects of the instances of E and V in the actual world is equal or inferior in positive value to the aggregate of all causes and effects of the instances of V in W.
(14) In each world in which E is instantiated, E's instantiation is not necessary to prevent the occurrence of an evil whose negative value is greater than the negative value of the aggregate composed of the instances of E and their causes and effects.

Intuitively, (8)–(14) say that W is exactly like the actual world except that

all (and not just some) animals or animal-like creatures are vegetarians. For example, in W there are counterparts to humans that are exactly like humans except that their DNA includes a strictly vegetarian blueprint. The Florence Nightingale counterpart performs her medical deeds and the Beethoven counterpart composes his symphonies, but they eat soybeans instead of pork.

But conditions (9) and (10) conceal ambiguities, since it is not clearcut what is to count as the counterpart of any given act of nourishment. For example, is eating 5 potatoes the counterpart of eating a part of a shank of a zebra, or is perhaps eating 9 carrots the counterpart? Definitions could be provided here, e.g. in terms of a set of all properties of a given genus and function exemplified by the relevant sort of animal or animal-like creature, but a precision of this sort is not necessary for our purposes.[7]

Now, if theses (8)–(14) are true, it follows that the law of predation E is ultimately evil. For if (8)–(14) are true, then E satisfies the above-mentioned eightfold sufficient of being an ultimately evil law. If E is ultimately evil and is actually instantiated, then there is actually no being that is omnibenevolent, omnipotent and omniscient. Or so it might be argued. But if this is to be argued successfully, some additional defence is needed for the theses (8)–(14). This is particularly the case for (13), which is the claim most vulnerable to attack. In the following section I shall consider and respond to some familiar objections to claims of this sort.

4. Swinburne, Hick, Schlesinger, Reichenbach and Plantinga

4.1 Richard Swinburne

It is arguable that it is implicit in Swinburne's theodicy in *The Existence of God* that it is false that

(13) The aggregate of all causes and effects of the instances of E and V in the actual world is equal or inferior in positive value to the aggregate of all causes and effects of the instances of V in W.

Swinburne's theodicy arguably implies that instances of the law of predation causally contribute to the provision of moral agents with the knowledge necessary for morally significant action, whereas instances of a law V of vegetation-nourishment would not. Since the aggregate of all events of morally significant actions (and all other causes and effects of instances of E) outweighs in positive value the aggregate of causes and

effects of the instances of V in the closest pure V-world (i.e. a world in which V but not E is instantiated), it follows that (13) is false and therefore that the law of predation is not ultimately evil. But let us examine some of the particulars in Swinburne's argument.

According to Swinburne, natural evil is morally justified by the "need for knowledge"; natural evils are logically "necessary if agents are to have the *knowledge* of how to bring about evil or prevent its occurrence"[8] and opportunities for such knowledge are outweighing goods relative to the evils. This argument, however, breaks down when it comes to instances of E, for there are no plausible candidates for "opportunities for ethically relevant knowledge" that both logically require instances of E and outweigh them in positive value. Swinburne mentions as one candidate the opportunities to learn about the potentially disastrous consequences to animals of our choices to change the environment and mutate genes; he explains that

> ... the story of pre-human nature 'red in tooth and claw' already provides some very general information crucially relevant to our possible choices. For suppose that animals had come into existence at the same time as man (e.g. 4004 B.C.) always in situations where men could save them from any suffering. Naturally it would then seem a well-confirmed theory that (either through act of God or nature) suffering never happens to animals except such as men can prevent. So men would seem not to have the opportunity to do actions which would cause suffering to later generations of animals of a subsequently unpreventable kind, or the opportunity to prevent such suffering. The story of evolution tells us that this is not so – the causation or prevention of long-term suffering is indeed within our power; such suffering can happen because it has happened. The story of pre-human evolution reveals to man just how much the subsequent fate of animals is in his hands – for it will depend on the environment which he causes for them and their genes which he may cause to mutate.[9]

The invalidity of this argument clearly appears if we isolate the relevant inferences. Swinburne infers from

(15) Animals exist only in situations in which humans can prevent them from suffering

to

(16) It would seem to humans a well-confirmed theory that suffering never happens to animals except such as humans can prevent

and from (16) to

(17) It would seem to humans that they do not have the opportunity to do actions which could cause or prevent subsequently unpreventable suffering to later generations of animals.

But (17) does not follow from (16). Imagine that the only animals that ever have existed are pets and farm animals. It would then be a well-confirmed theory that suffering never (or rarely) happens to animals except such as humans can prevent. But would it then seem that we do not have the opportunity to engage in actions that would cause or prevent subsequently unpreventable suffering to future generations of animals? Of course not. Suppose some pesticides are used in a limited area and blind all pets and farm animals in that area and cause all generations of offspring of these animals to be blind. This would provide us with knowledge of an action (use of this pesticide everywhere) that would cause unpreventable suffering (blindness) to all future generations of animals.

Swinburne also suggests that instances of E provide humans with helpful knowledge pertinent to themselves: "...seeing the fate of sheep, men have learnt of the presence of dangerous tigers".[10] It is also suggested that instances of E provide the higher animals with helpful knowledge about survival: "Seeing the suffering, disease, and death of others in certain circumstances, they learn to avoid those circumstances".[11] To narrow our focus to the law E let us consider only the helpful knowledge provided by instances of E; let us call this helpful knowledge *self-preservation E-knowledge*. Swinburne's remarks might suggest the following argument about self-preservation E-knowledge:

(18) Self-preservation E-knowledge is an outweighing good relative to the instances of E.
(19) The over-all positive value of the aggregate of self-preservation E-knowledge and the instances of E (and all other causes and effects of these instances) is greater than the positive value of the aggregate of the instances of V and their causes and effects in the closest pure V-world.

Therefore

(20) Premise (13) of the atheological argument is false and consequently E is not ultimately evil.

Although both (18) and (19) seem false, I shall content myself with showing that (18) is false. The idea that self-preservation knowledge gained from instances of E is an outweighing good relative to instances of

E is based on the fallacious assumption that it is good that an evil of a certain type exists since its existence provides an opportunity to learn how to prevent future instances of the evil. In particular, the assumption is that "It is good that animals savagely attack, kill and devour each other and occasionally humans, so that animals and humans can learn to avoid being savagely attacked, killed and devoured on some occasions in the future". If the assumption underlying this argument were true, then it would be a sound argument that "It is good that millions of humans die agonizing deaths of cancer, since this provides humans with opportunities to learn how to prevent some people from dying of cancer in the future". This assumption is false since the opportunity to learn to prevent some evils of a certain type does not outweigh in positive value the negative value of the extant evils of this type. If it did outweigh them, we should be rejoicing in the AIDS epidemic since the instances of AIDS combined with the opportunities to learn how to prevent AIDS would result in an overall increase in the positive value in the universe.[12]

4.2 John Hick

John Hick's account of instances of E is also based in part on counterintuitive moral principles. Hick suggests that seemingly unjustified natural evils are necessary if humans are to have a natural environment that does not automatically incite faith and love of God but requires this faith and love to be freely chosen from an epistemic 'distance'. In Hick's words, "... in order for man to be endowed with the freedom in relation to God that is essential if he is to come to his Creator in uncompelled faith and love, he must be initially set at an epistemic 'distance' from that Creator. This entails his immersion in an apparently autonomous environment which presents itself to him *etsi deus non daretur*, 'as if there were no God'".[13] This might suggest an argument to the effect that an environment of Hick's "soul-making" sort requires E to be instantiated, and therefore that the actual world is superior in value in the relevant respects to the closest pure V-world. But this argument fails since the instantiation of E is not necessary for the existence of an environment that seems morally ambiguous or theologically doubtful to humans. The occurrence of natural disasters that befall humans, such as plagues, wheat famines, floods and tornadoes is sufficient by itself to create a questionable natural environment. We are at an epistemic "distance" from God due to the sufferings and horrible deaths nature sometimes inflicts upon us, and the hundreds of

millions of years of animals preying on each other before we even evolved are not needed for this "distancing".

But there is a second and more fundamental problem with Hick's theodicy; it ascribes to God the morally pernicious attitude of "speciesism", to borrow a term from Peter Singer.[14] No omnibenevolent creator would use animals as a mere means to the end of human welfare, treating them as if they had no value or rights by themselves and could be tortured with complacency on a mass scale for the sake of "spiritual benefits" to the human species. Animals are sentient creatures capable of suffering and as such are moral ends in themselves; the failure to treat them as such is a sign of selective benevolence and callousness and is inconsistent with the definition of God. If God intended to create a questionable natural environment for the human species, he could and would have done so without violating the rights of animals. (For those who hold, *contra* Regan,[15] that animals have no rights but that their welfare is of value, this point may be put by saying that an omnibenevolent creator could and would have created a questionable environment without callously neglecting the welfare of animals.)[16]

4.3 George Schlesinger

The "no best possible world defence" of natural evil, most thoroughly developed by Schlesinger,[17] is also inadequate since the alleged fact that there is no best possible world does not license God to create just any world. Schlesinger's argument does not show that every world creatable by God contains instances of ultimately evil natural laws, or that every creatable world without such instances is inferior in over-all positive value to worlds with such instances, and thus his argument is open to the objection that a perfectly good, wise and powerful being would have created one of the worlds devoid of such instances. Furthermore, the fact that there is no best possible world does not show that it is morally permissible to create our E-world with its massive amount of gratuitous animal evil rather than the closest pure V-world W with no E-evil but similar goods to the actual world. (By analogy, the fact that there is no best possible political system does not morally permit politicians to choose Nazism rather than some version of constitutional democracy as the actual political system.) In fact a much stronger case can be made against Schlesinger's argument, as Keith Chrzan[18] has recently

demonstrated. Schlesinger's "no best possible world defence" shows only that there is no world with a maximal positive value and not that there is no world *without any natural and moral evil;* consequently, this defence fails to demonstrate that natural and moral evil is a necessary implication of creation and thus fails to explain how God's existence is compatible with the actual world.

4.4 Bruce Reichenbach

Reichenbach's argument[19] is that the possibility of natural evil is necessary for the outweighing good of rational agents making moral choices. But we can admit this consistently with maintaining that E's instantiation counts as evidence that God does not exist. It may be granted that the *possibility of natural evils of some sort* is necessary for moral choices, but denied that *instances of E* are necessary for such choices. The proposition

(21) The possibility of natural evil of some sort is a necessary condition of rational agents making moral choices

does not even entail

(22) The possibility of E-evil is a necessary condition of rational agents making moral choices,

let alone

(23) E-evil is a necessary condition of rational agents making moral choices.

I have argued that instances of E are not necessary for such choices in response to Swinburne and Hick. But an even stronger argument is that some initial conditions which make it *impossible* for E to be instantiated are perfectly compatible with rational agents making moral choices, and thus that (22) is also false. For example, in W, the closest pure V-world, the only living creatures are vegetarians and thus no E-evil can occur in W. Of course, a human counterpart could madly kill and then devour a rabbit in W, but he would not be nourished by it, since his DNA allows him only vegetarian nourishment, and thus this act would not be an instance of E. Thus, Reichenbach's argument fails to impugn the thesis that E is ultimately evil.[20]

4.5 Alvin Plantinga

Plantinga does not offer a theodicy but a defence. He argues that it is possible that all natural evil is due to the free activity of non-human creatures; that there is a balance of good over evil with respect to the actions of these creatures; and there is no world God could have created which contains a more favorable balance of good over evil with respect to the free activity of these creatures. Now it may be granted that this is possible, consistently with the soundness of my atheological argument. That is, it may be granted that it is possible that all instances of E are effects of free decisions of fallen angels and that the positive value of the free activity of these angels outweighs the negative value of the instances of E, but at the same time insisted that this is not actually the case. And this insistence is consistent with Plantinga's free will defence.

But how do I "know" this is not actually the case? If this question is motivated by skeptical considerations (e.g. how do I "know" that the universe did not begin to exist five minutes ago?) then it may be rejected for the same reasons that philosophers reject skepticism in general. But if this question is motivated by non-skeptical epistemological considerations, I would explain that I have probabilistic knowledge that there are no fallen angels who cause the instances of E. *There is no evidence* that there are free non-human creatures who cause the instances of E and this fact justifies the belief that there probably are no such creatures. As P.J. McGrath[21] has recently shown in some detail, if there is no evidence for a positive existence claim then that justifies belief in the nonexistence of the entities claimed to exist.[22]

This principle also deflates the more general theistic argument that "we do not know enough to make any rational judgement about the truth-value of (13); therefore we do not know if the atheological argument based on (8)–(14) is sound". I think we are warranted in believing (13) since *there is no evidence* for the positive existence claim that there are goods that are causes or effects of the instances of E that render the actual aggregate of all the causes and effects of the instances of E and V greater in positive value than the aggregate of all the causes and effects of the instances of V in the closest pure V-world. For example, there is no evidence that there are angels that cause the instances of E or that the chain of effects of E will eventually result in some Great Glorious Good in the distant future. Of course, it is possible that there is some such Great Good but mere possibility does not suffice to impugn a probabilistic argument. The only

evidence we possess about the causes and effects of the instances of E supports the view that these causes and effects are similar or inferior in value to the causes and effects of the instances of V in the closest pure V-world. For example, we know that some effects of the instances of E are humans (or the coming into existence of humans) and humans are similar in positive value to the human counterparts that are effects of instances of V in the closest pure V-world. (Or else humans are inferior in value, simply by virtue of being carnivores.) Furthermore, the known causes of the instances of E (the causal chain leading to the evolution of carnivores, including the big bang, the formation of galaxies and planets, chemical reactions taking place in the oceans, etc.) are of a sort similar to the events that cause vegetarian animals to evolve in the closest pure V-world. There is no extraordinary difference between causal chains leading to carnivores and those leading to vegetarians, as far as we know. Since events of a similar sort are of similar value, all else being equal, it is reasonable to assume that the causal chains in both worlds are of similar value. (Or else the causal chain leading to carnivores is of inferior value simply by virtue of the fact that it leads to carnivores.) But we can make a stronger statement than this. Some of the later carnivores are causal outcomes of earlier carnivorous events and by virtue of this fact the causal chain that produces carnivores is inferior in positive value to the causal chain that produces only vegetarians. Thus, it is probable that (13) is true, that the positive value of the aggregate of the causes and effects of the instances of E and V is equal or inferior to the positive value of the aggregate of the causes and effects of the instances of V in the closest pure V-world.

A defender of Plantinga's line of thinking might respond to the foregoing by rejecting the force of my probabilistic claims about the causes and effects of the instances of E. He may allege, for instance, that my claim *that the instances of E are probably not effects of the free decisions of fallen angels and therefore that instances of E make it probable that God does not exist* presupposes some particular theory of probability and there is no non-question-begging application of a theory of probability to the issue at hand.[23] To this allegation, I shall permit myself only the brief retort that Plantinga's criticism of the probabilistic argument from evil is based on a number of technical and substantive fallacies, as has been recently demonstrated by Keith Chrzan in a series of articles.[24]

Further defences of my argument are possible and there are probably still further objections that need to be considered. But I believe the considerations I have presented put the ball in the theist's court and at the

very least make it *prima facie* reasonable to believe that the law E is ultimately evil and that God does not exist.

Thus, it seems to me that I am entitled to believe that the horror I experienced on that dark night in the woods was a veridical insight. What I experienced was a brief and terrifying glimpse into the ultimately evil dimension of a godless world.[25]

Notes

1. See D.M. Armstrong, *What is a Law of Nature?* (Cambridge University Press, 1983); Michael Tooley, "The Nature of Laws," *Canadian Journal of Philosophy* 7 (1977): 667–698; Fred Dretske, "Laws of Nature," *Philosophy of Science* 44 (1977): 248–268.
2. See Saul Kripke, *Naming and Necessity* (Harvard University Press, 1980) and Hilary Putnam, "The Meaning of 'Meaning'" in *Philosophical Papers,* Vol. II (Cambridge University Press, 1975).
3. See Alvin Plantinga, *The Nature of Necessity* (Oxford University Press, 1974), pp. 1–2.
4. The phrase "obtaining nourishment" is an abbreviation of some more complex expression that expresses a property that involves the peculiarities of predators. Obviously not all nourishment is predatory. Furthermore, "obtaining nourishment" should be understood as meaning "obtaining nourishment in its natural environment," for in some artificial environments, e.g. zoos, predators obtain nourishment without killing anything.
5. Jaegwon Kim, "Events as Property Exemplifications," in *Action Theory,* eds. M. Brand and D. Walton (D. Reidel, 1976), pp. 159–177.
6. One reason for denying the assumption is Moore's principle of organic unities, which implies that "the evil part of the whole w outweighs the good part" is consistent "w as a whole is good." See G.E. Moore, *Principia Ethica* (Cambridge University Press, 1971), Chapter One.
7. The same should be said of element (vi) of the eightfold sufficient condition (i)–(x) of an ultimately evil law.
8. Richard Swinburne, *The Existence of God* (Clarendon Press, 1979), p. 202.
9. Ibid., p. 210.
10. Ibid., p. 209.
11. Ibid., p. 208.
12. For additional and sound criticisms of Swinburne's theodicy, see David O'Connor "Swinburne on Natural Evil," *Religious Studies* 19 (1983): 65–74; Eleonore Stump, "Knowledge, Freedom, and the Problem of Evil," *International Journal for the Philosophy of Religion* 14 (1983): 49–58; Bruce Russell, "The Persistent Problem of Evil," *Faith and Philosophy* 6 (1989): 121–139.
13. John Hick, *Evil and the God of Love* (Harper and Two, 1978), p. 323.

14. Peter Singer, *Animal Liberation* (Avon Books, 1977), p. 7.
15. Tom Regan, *The Case for Animal Rights* (University of California Press, 1983).
16. For additional and sound criticisms of Hick's theodicy, see G. Stanley Kane, "The Failure of Soul-Making Theodicy," *International Journal for the Philosophy of Religion* 6 (1975): 1–22, and Bruce Russell, "The Persistent Problem of Evil," *Faith and Philosophy* 6 (1989): 121–139.
17. George Schlesinger, *Religion and the Scientific Method* (D. Reidel, 1977).
18. Keith Chrzan, "The Irrelevance of the No Best Possible World Defence," *Philosophia* 17 (1987): 161–167.
19. Bruch Reichenbach, *Evil and a Good God* (Fordham University Press, 1986).
20. For further sound criticisms of Reichenbach's theory, see Michael Martin, "Reichenbach on Natural Evil," *Religious Studies* 24 (1988): 91–99.
21. P.J. McGrath, "Atheism or Agnosticism," *Analysis* 47 (1987): 54–57.
22. Further defence of principles of epistemic justification of the relevant sort can be found in William Rowe's excellent article "Evil and Theodicy," *Philosophical Topics* 16 (1988): 119–132 and Quentin Smith's *The Felt Meanings of the World: A Metaphysics of Feeling* (Purdue University Press, 1986), pp. 131–134 and 140–142.
23. See Plantinga's "The Probabilistic Argument from Evil," *Philosophical Studies* 35 (1979): 1–53.
24. Keith Chrzan, "Plantinga and Probabilistic Atheism," *International Journal for Philosophy of Religion,* forthcoming; "The Burden of Proof in Probabilistic Theodicy," forthcoming.
25. Considerations about the origin and evolution of the natural universe also suggest there is a *cosmological* argument for God's non-existence. See Quentin Smith, "A Big Bang Cosmological Argument for God's Nonexistence," *Faith and Philosophy,* forthcoming in 1992; "Atheism, Theism and Big Bang Cosmology," *Australasian Journal of Philosophy* 69, No. 1, forthcoming in March 1991, and "The Uncaused Beginning of the Universe," *Philosophy of Science* 55 (1988): 39–57.