

The consequential complexity of history and gratuitous evil

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Abstract: History is composed of a web of innumerable interacting causal chains, many of which are composed of millions of discrete events. The complexity of history puts us in a position of having knowledge of only a minuscule portion of the consequences of any event, actual or proposed. Our almost complete lack of knowledge of the data necessary to know if an event is gratuitous makes it very likely that we would be mistaken about a very large number of events. The complexity of history, therefore, poses a significant challenge to certain types of evidential arguments from evil that begin with our observations of evils that appear to be gratuitous.

*For want of a nail the shoe is lost,
For want of a shoe the horse is lost,
For want of a horse the rider is lost,
And all for the want of a nail.
Benjamin Franklin, 1757*

Introduction

An event can lead to an exponentially increasing number of consequences, affecting an increasing number of causal chains. History¹ is composed of a web of innumerable interacting causal chains, many of which are composed of millions of discrete events. The consequential complexity of history poses a significant challenge to both inductive and abductive evidential arguments from evil that begin with our observations of instances, types or amounts of evil that appear to be gratuitous.

In this paper I shall first discuss the consequential complexity of history. I will then look at the relevance of this complexity to the two criteria commonly thought to be essential in evaluating whether or not an evil is gratuitous. Next, I will examine the implications of the complexity of history for certain types of arguments from evil. Finally, I will consider two objections to my argument.

The consequential complexity of history

On the night that Sir Winston Churchill was conceived, had Lady Randolph Churchill fallen asleep in a slightly different position, the precise pathway that each of the millions of spermatozoa took would have been slightly altered. As a result, the odds would have overwhelmingly favoured the conception of an infant with a different chromosomal combination. Sir Winston Churchill, as we knew him, would not have existed, with the likely result that the evolution of World War II would have been substantially different from what actually took place.

In this case an event of no apparent moral significance (the position that Lady Randolph Churchill fell asleep) led to events of great moral significance affecting literally millions of causal chains. Furthermore, those morally significant consequences did not become visible until some sixty-six years later. There are likely to be a myriad of other events, the vast bulk of which would have appeared to have no moral significance at the time and are now lost to history, that were also historically necessary for Churchill to affect the causal chains in the way he did.

The natural conception lottery consisting of millions of possible outcomes, which takes place every time someone is conceived, can be affected by even small deviations in physical circumstances. If one can change the daily schedules of an entire nation, one can change the set of future individuals that will compose that nation. It is likely that World War II changed the daily schedules of almost every adult person in Europe, Britain and its allies. This being the case most people born after 1943 would not have existed if World War II had not taken place. Instead we would now have an entirely different set of individuals born after that date in Europe, Britain and its allies. Exactly *how* World War II affected the schedules of so many people was determined by countless factors, only one of which was the actions of Sir Winston Churchill which, indirectly, were a consequence of the position that Lady Randolph Churchill fell asleep on an evening early in the year of 1874.

Biologist Stephen Jay Gould has described the exotic world of the Burgess shale, laid down during the Cambrian Era. None of the many phyla found in the Burgess shale had any apparent advantage over any of their counterparts. The life forms we observe today, Gould argues, could have been very different had past natural events been only slightly different. The state of the world today is a result of innumerable past natural events, most of which were probably quite insignificant at the time. A very minor, local event in the Cambrian seas could easily have wiped out the first known chordate *pikaia*, effectively producing a world with no chordates: no fish, no birds, no mammals, no *homo sapiens*.²

Upon reflection, it can be seen that history is composed of billions of inter-related causal chains each of which consists of thousands, millions, or more discrete events. Changing one event not only changes the entire causal chain from that point onward to the end of history, it also changes the evolution of all

other causal chains that interact with the revised causal chain at any point in the future.

To use a simile, history is like a collection of billions of equations (causal chains) that are all dependent upon each other. Each equation contains thousands or millions of variables (discrete events). If we change just one of the variables, innumerable variables in all the other dependent equations are changed as well. Although it is easy to suggest exchanging one variable for another, more positive variable, if we wish to see if history is actually improved by the substitution we must simultaneously solve billions of equations containing millions of variables to see if the overall, ultimate outcome has been improved. This is a task that is so far beyond human ability that we simply are not in a position to engage in such an exercise.

I will now proceed to examine the implications of the consequential complexity of history upon the criteria we hold essential in discussions of whether or not God is justified in permitting any given event.

The complexity of history and gratuitous evil

Gratuitous evil is commonly understood as evil which God could have prevented without forfeiting some greater good or permitting some evil as bad or worse than the instance of evil being examined. With this definition in mind, in contemplating whether or not God was justified in permitting a given evil, we must consider two bodies of relevant data:

- (a) the instance of evil along with its morally significant consequences;
- (b) the morally significant consequences of substituting that instance of evil for some other event.

Once we have a sufficient grasp of both sets of data (a) and (b), then we are in a position to see if the instance of evil was indeed gratuitous. Let us first consider the historically complex problem of evaluating the data in (a) and then we shall discuss the difficulty of evaluating the data in (b).

I will make three assumptions that are commonly granted in discussions of the problem of evil. The *first assumption* is that this world contains free agents who can make decisions that are not determined by any antecedent conditions and who, for any decision, could have decided otherwise. The *second assumption* is that there might be some restrictions on just how much evil God can prevent in the process of achieving a greater good. According to Alvin Plantinga, 'The heart of the Free Will Defense is the claim that it is possible that God could not have created a universe containing moral good (or as much moral good as this one contains) without creating one containing moral evil'.³ The *third assumption* is closely related to the second. It is the assumption that there may be worlds containing moral good that God cannot actualize. This is because 'the actual-

ization of a world W containing moral good is not up to God alone; it also depends upon what the significantly free creatures of W would do if God created them and placed them in the situations W contains'.⁴ With these three assumptions in mind, let us proceed.

If we are concerned about whether or not God was justified in permitting a given evil, we must concern ourselves not only with the negative intrinsic value of the evil itself, but also with the intrinsic values of all the consequences of that evil that will be actualized to the end of history. If permitting the rape, beating and murder of a five-year-old girl resulted in the prevention of over 300 similar events over the next 125 years, then that information would certainly be relevant in evaluating whether or not God was justified in permitting that instance of evil. As we saw in my opening illustrations, even consequences that are of no immediate moral significance must be followed up in case those seemingly innocuous consequences lead to events over the next several million years that are of great moral significance. What we are interested in is the overall value of the segment of actual history composed of the initial event and all its consequences to the end of history. That overall value, which I shall refer to as A , is the sum of the intrinsic values of the event and all its actual consequences to the end of history. For the sake of the calculation, we can assign intrinsic values to each of the consequences of the initial event that are indexed to whatever intrinsic value we assigned to the initial event, E . The sum of all these intrinsic values, both negative and positive, yields the overall net value of the event as follows:

$$A = E + C_1 + C_2 + C_3 + \dots C_{\text{end}}$$

Recall that each event in this world produces an exponentially increasing number of consequences, affecting an exponentially increasing number of causal chains. The set of consequences to the end of history of any event is therefore likely to include billions or more discrete events. It should be evident that our knowledge of the consequences of any event is minuscule in comparison with the entire set of consequences to the end of history. For us, the calculation of A could be illustrated by an instance of evil that on a scale of one to ten we rated as -6 . Let us say we had knowledge of only five consequences for which we assigned intrinsic values of 3, -1 , -3 , 0 and 2 relative to the -6 evil event. A would then be calculated as follows:

$$A = -6 + 3 - 1 - 3 + 0 + 2 + \text{billions of unknown numbers}$$

There may be cases where we have knowledge of many more consequences but however extensive our knowledge regarding the consequences of a given event is, it will be minuscule in comparison to what we do not know – the remaining innumerable consequences that are part of countless causal chains extending to the end of history.

In contemplating whether or not God was justified in permitting a given evil,

one of the bodies of data we must examine are the actual consequences of the instance of evil. As we have just seen, we have a problem. We are missing almost all of the necessary data. If we were given the above arithmetic question and asked to defend one of following three possible positions,

- (a) A is positive,
- (b) A is negative, and
- (c) we do not know if A is positive or negative;

it should be readily apparent that the most rational position to defend would be (c); we do not know if A is positive or negative.

The problem of A constitutes our first challenge in contemplating the possibility of gratuitous evil. There is a second problem however. It is the problem of knowing the consequences of preventing a particular instance of evil in favour of some other event. Even if we knew that for a particular evil A was positive, we still would not know if the evil was gratuitous until we knew whether or not there was a better alternative that God could have actualized that would not forfeit a greater good or bring about an evil that was as bad or worse. We are interested in the overall value of the best alternative God could have actualized. I shall refer to the overall value of the best alternative that God could actualize as B, where B is the sum of the intrinsic value of the event, S, that God substituted for the instance of evil, along with the intrinsic values of all the consequences of that substitution.

$$B = S + C_{B_1} + C_{B_2} + C_{B_3} + \dots C_{B\text{-end}}$$

Recall the third assumption at the beginning of this section; there may be worlds containing moral good that God cannot actualize. The significantly free creatures may not make all the necessary free decisions, under any circumstances God could bring to bear. In order to know which worlds God can actualize we require *middle knowledge* – the knowledge of what every possible free creature would freely do in every situation in which that creature could possibly find himself.⁵ It is self evident that we do not possess middle knowledge. As a consequence, we are at a terrible disadvantage in calculating B. For any given instance of evil it seems likely, if not certain, that God could have prevented that evil by direct intervention. Given this we can certainly postulate with confidence that God could actualize a world in which the given evil did not occur, but we would not know what the consequences would be that include the subsequent decisions of free agents. In attempting to calculate A for a given evil, we often have knowledge of some free decisions that were made afterwards. In attempting to calculate B however, we have no knowledge of any subsequent free decisions that would be made since we do not have middle knowledge. We may attempt to think of better worlds, but if those worlds include the decisions of free agents, then we do not know if God can actualize them.

It should be evident that we are in no position to know what constitutes the

best alternative that God could actualize. We do not need to have knowledge of that, however. All we need to do is to think of at least one possible world that God can actualize that is better than the one containing the particular evil under investigation. Our lack of middle knowledge however, makes the task impossible if it contains the decisions of free agents. For any such world we can think of, we do not know if God can actualize it. Apart from the first few events that might not involve the decisions of free agents, our knowledge of the data needed to calculate B is virtually non-existent.

An objection can be raised at this point. It appears to us as if we can think of a large number of possible worlds that are better than the one containing the given evil. Due to our lack of middle knowledge we do not know which ones God can actualize, but it seems unlikely that God could not actualize any of them. It is therefore likely that God could actualize at least one of the many better worlds we believe we can imagine. It would follow from this that it is likely that gratuitous evil exists.

In response, I will argue that we are mistaken if we believe that we can think of a better world. The word 'better' is a comparison word. In order to propose that B is better than A, we must have sufficient knowledge of both A and B so that we can compare the two to see if B is better. The consequential complexity of history is such that we do not have sufficient knowledge of this world such that we could compare it with another possible world that contains free agents and declare that such a world is better. To illustrate this problem let us consider the simplest case, the proposal to change just one event.

For a known instance of evil one might suggest that we do not need to know very much about this world at all. All we have to do is to propose a world which is identical to this one, except that it does not contain the given instance of evil. Given this, we have sufficient knowledge to make a comparison; the B-world (better world) is identical to the A-world (actual world) except that the B-world is missing just one event which we already know to be negative. Therefore the B-world is better, or more positive, than the A-world.

In response, it should be noted that it is not logically possible to delete an event from history without deleting all the consequences of that event. It is possible, of course, that some of the deleted consequences that were not dependent upon the actions of free agents could be reintroduced by God as independent events through direct intervention but this would not help us. We would still be ignorant of all the consequences that were in some way dependent upon the decisions of free agents subsequent to the initial evil event. Given the consequential complexity of history, when we propose deleting a particular event from the world, we are actually proposing deleting all the billions of consequences of that event strewn throughout myriads of interrelated causal chains stretching to the end of history. The deletion or substitution of just one event is actually the deletion or substitution of an entire complex branch of history that may be so

large as to affect the entire historical network at some point in the future. As I have already argued, the consequential complexity of history makes it impossible for us to know what that branch consists of. Therefore, we do not have sufficient knowledge to compare two worlds that differ only in one complex branch of history, which is the simplest case of substitution. Deleting groups of evils would be significantly more complex.

In reflecting upon the consequential complexity of history, it is absurdly simplistic to think that we can delete just one discrete event from a world that contains free agents without the very real possibility of radically changing the future. The complexity of history provides two insurmountable challenges in an attempt to think of a better world. First we do not have sufficient knowledge of this world's causal chains and individual effects to know what this world is like to the end of history. If we do not know what this world is like to the end of history, then it is impossible for us to compare it to other worlds to see if they are better. Secondly, the complexity of history prevents us from knowing what any alternative world would be like to the end of its history if we deleted just one event. The result is that we do not know what we actually have and we do not know what any alternative world, containing free agents, would be like. Therefore we are mistaken if we believe that we can think of a better world. All we can do is think of a better, very small segment of history. A better, very small segment of history however, should not be confused with a better world. Proposals of a better world must take into account the complexities of histories, both actual and possible. That is something we are not in a position to do.

The initial objection argued that it was likely that God could bring about at least one of the many better worlds we can think of. The response that I have just laid out argues that the activity of thinking of better worlds is not an activity humans are capable of. The best we can do is to think of better, very short segments of history so long as they do not involve much in the way of free decisions. This is an exercise which falls woefully short of being able to think of better worlds that contain free agents.

Thus far, in contemplating whether or not God was justified in permitting a given evil, we have considered the historically complex problem of obtaining knowledge of two bodies of relevant data:

- (a) the instance of evil along with its morally significant consequences;
- (b) the morally significant consequences of substituting that instance of evil for some other event.

In calculating the overall values of both sets of data, specifically:

$$A = E + C_1 + C_2 + C_3 + \dots C_{\text{end}}$$

and

$$B = S + C_{B_1} + C_{B_2} + C_{B_3} + \dots C_{B\text{-end}}$$

the complexity of histories, actual or proposed, makes the most rational position for us to take, as the position of agnosticism regarding whether or not A is positive or negative and whether or not B is positive or negative.

In considering whether or not an evil is gratuitous, we must compare A and B. It is not sufficient just to know that for a given instance of evil A is positive, for there may be an even more positive B-world that is actualizable by God. In that case the overall value of B would be greater than the overall value of A. Put another way, certain goods could be realized with less suffering in the B-world than they could in the A-world. It is the difference between A and B that reveals whether or not a given evil is gratuitous. If $A - B$ is positive, then God was justified in permitting the given evil. If $A - B$ is negative, then God was not justified in permitting the evil in question. With this in mind, a gratuitous evil can be defined as follows:

An instance of evil E is gratuitous if and only if $A - B$ is negative.

Reflection upon the consequential complexity of history reveals that we have a serious challenge ahead of us whenever we wish to contemplate whether God was justified in permitting particular instances of evil or collections of a large number of events, many of which are evil. Our knowledge of the data needed to calculate A and B is minuscule in comparison with the amount of data we are missing.

History and certain types of evidential arguments

Bruce Russell has classified the two forms of the evidential argument I am interested in as type 1 and type 2 arguments.⁶ Both types start from the fact that we see no point to allowing certain instances, amounts, types, or patterns of suffering and move to the conclusion that gratuitous evil exists. They differ only in that the conclusion is inferred by induction in type 1 arguments and by abduction (inference to the best explanation) in type 2 arguments. I will now proceed to argue that the complexity of history poses a serious challenge to both type 1 and type 2 arguments.

A type 1 argument begins with observations of evils, be they instances, types, groups, or patterns, that appear to be gratuitous. An inductive inference is then made to the conclusion that certain instances, types, groups, or patterns of evils are gratuitous. The underlying assumption of such an inductive inference is the assumption that we have sufficient information about the consequences of a particular instance, type, group, or pattern of evil, as well as sufficient knowledge of better worlds, to justify rationally the conclusion that such evil is indeed gratuitous, that is, $A - B$ is negative.

In examining any instance of evil E, reflection upon the consequential com-

plexity of histories, both actual and those of B-worlds, reveals that we do not have sufficient information to justify rationally the conclusion that $A - B$ is negative. The problem we have for any E is similar to the following problem:

Given $A = -7 + 2 - 3 + 1 + 2 +$ millions of unknown numbers of
 unknown sign,
 $B = 4 + 2 +$ millions of additional unknown numbers of
 unknown sign.
Question Is $A - B$ positive or negative?

In the above arithmetic question, there are three positions one could take:

- (1) $A - B$ is positive;
- (2) $A - B$ is negative; and
- (3) agnosticism regarding the sign of $A - B$.

It should be apparent that what we know is so minuscule in comparison with the vast amount of information that we do not know, that the most rationally defensible position to take is (3), agnosticism regarding the sign of $A - B$. The problem is compounded for groups or patterns of evils. In such cases we are not concerned with the simple analysis of just one evil but of many, each of which has its own A and B. The special case of massive evils such as the Holocaust and the Black Death will be considered in the next section dealing with objections.

Reflection upon the consequential complexity of history reveals that the underlying assumption for the inductive inference in type 1 evidential arguments from evil is false. We do not have sufficient information regarding the consequences of any evil or group of evils to justify rationally the conclusion that $A - B$ for such evils is negative and therefore gratuitous. If this can be granted, then the consequential complexity of history poses a serious challenge to type 1 evidential arguments from evil.

Type 2 arguments from evil are slightly different. They begin from the same starting point, observations of evils that appear to be gratuitous, but then infer by abduction that gratuitous evil is the best explanation for such evils. The underlying assumption in type 2 abductive inferences is that our observations of evils that appear to be gratuitous are more like what we would expect in a world that contains gratuitous evil and less like what we would expect in a world that contains no gratuitous evil.

Let us imagine two possible worlds that are similar to ours in that they both contain free agents and the balance of good and evil events is such that the inhabitants are left debating whether or not gratuitous evil exists. However, one world, W_1 , actually contains gratuitous evil and the other world, W_2 , contains no gratuitous evil.

If the inhabitants of both worlds had knowledge of all the data necessary to calculate $A - B$ for any event, then we would expect that there would be a perfect

correspondence between whether or not an evil actually was gratuitous and whether or not it appeared to be gratuitous. The inhabitants of W_1 would believe that certain evils were gratuitous and they would be right. The inhabitants of W_2 would believe that there was no gratuitous evil in their world and they would be right also.

If the inhabitants of both worlds were missing a minute amount of knowledge necessary to calculate $A - B$ for any event, then we should expect the possibility of error creeping in. There may be the occasional case in both worlds where the inhabitants were wrong about whether or not $A - B$ was positive. For the inhabitants of W_1 this would mean that some events would appear to be gratuitous when in fact they were not and other events would not appear to be gratuitous when they actually were. For the inhabitants of W_2 some events would appear to be gratuitous even though there was no gratuitous evil in W_2 . Since the inhabitants of both worlds would be missing only a minute amount of data however, we should expect such mistakes to be only occasional.

We would expect the potential for error to increase as the inhabitants' ignorance of the data needed to calculate $A - B$ increased. As their ignorance of the data increased, we would expect the inhabitants of W_1 and W_2 to be increasingly wrong about whether or not an evil was gratuitous. For the people of W_1 , there would be an increasing number of events that appeared to be justified when, in fact, they were gratuitous and also an increasing number that appeared to be gratuitous when, in fact, they were not. For the citizens of W_2 , there would be an increasing number of events that they were mistaken about as well. In their world, since all events are actually justified, being mistaken would entail that an increasing number of events would appear to be gratuitous.

Eventually, as the amount of missing data increased, a point would be reached where there was no longer any relationship between whether an event appeared to be gratuitous and whether it actually was. There would simply be too much missing data. At this point the inhabitants might as well flip a coin to decide whether or not an event was gratuitous as they would just as likely be right as wrong. Once there was no longer any relationship at all between whether or not an event was gratuitous and whether or not it appeared to be gratuitous, then both worlds would appear to be the same, composed of a random mixture of events some of which appeared to be gratuitous and some of which appeared to be not gratuitous. Whether or not an event appeared to be gratuitous would depend upon which minuscule amount of data an individual had access to and that would vary from person to person. It is unlikely that for any event, all people aware of that event would have knowledge of exactly the same minuscule collection of data. For the inhabitants of W_2 , even though there was no gratuitous evil in that world, they would observe a random variety of instances, types, groups, and patterns of evils that appeared to be gratuitous. We should expect exactly the same thing for W_1 , which contained gratuitous evil.

I am arguing that the assumption that our observations of evils that appear to be gratuitous is more like what we would expect if the world contains gratuitous evil and less like what we would expect if it doesn't, is true only if we have sufficient knowledge of the data such that there is at least a loose relationship between whether or not events are gratuitous and whether or not they appear to be gratuitous. Reflection upon the complexity of history reveals that our knowledge of the data is minuscule, far too small to justify rationally the belief that such a loose relationship exists. This being the case, we should expect to observe a random collection of instances, groups, types, and patterns of evil that appear to be gratuitous if there is gratuitous evil and if there is not. Thus, the complexity of history poses a serious challenge to the underlying assumption of the abductive inference found in type 2 arguments from evil. The existence of gratuitous evil is not the best explanation for our observations, for we should expect to see exactly the same thing if there is no gratuitous evil given the complexity of history and our minuscule knowledge of the necessary data, provided my initial three assumptions are granted.

Two objections

In this section I shall respond to two objections that can be raised against what I have argued. First there is the worry about the harshly utilitarian nature of my argument. Second, an objection can be raised from the occurrence of massive evils.

First, I will address the concern regarding the heartless utility of what I have argued. Consider an instance of evil, made famous by William Rowe, involving a five-year-old girl who is brutally raped, beaten and strangled. One good series of consequences that we can conceive of is that public revulsion over the event leads to several consequences that initially appear to be relatively insignificant but eventually lead to changes in laws, moral education and family support over the following three decades. The result is that over the next three centuries, eight other virtually identical events are prevented. Furthermore, let us say that when all the consequences to the end of history are examined, A–B turns out to be positive for this instance. According to what I have argued, we could conclude that God was justified in permitting the brutal rape, beating and strangulation of the five-year-old girl. The worry that we have with this however, is the heartless utility of it all.

It would be difficult to deny that it is better that one person should suffer than eight. But what about the five-year-old girl? We ought to be concerned with A–B, but we also find ourselves very much concerned with the goods for the sufferer. In such a dilemma it is not fair to the individual if she is permitted to experience such a horrendous event, but it is not fair that eight should suffer a similar experience instead of just one.

According to the definition I have proposed for gratuitous evil, fairness to the individual is not necessarily a priority. Our sense of justice however, wants both the girl and the other eight people in the future to be treated fairly. This can be accommodated by revising my definition of gratuitous evil:

An instance of evil E is gratuitous if and only if:

- (1) A – B is negative or,
- (2) not all persons who are affected are treated fairly.

I have already argued that we must remain agnostic regarding whether or not the first part of the disjunction is actually the case. I will now proceed to argue that we must remain agnostic regarding whether or not the second part of the disjunction is the case.

One solution to the dilemma is to compensate the victim either in this life or in the afterlife. Of course, any compensation given in this life would be an event itself with its own exponentially increasing string of consequences. With this in mind, I will assume the following:

An individual is treated unfairly if and only if there is no compensation in this life and there is no compensation in the afterlife.

There are many instances of suffering that include the suffering and death of individuals who, for all we can see, were not compensated during the course of their short life in a way that would more than make up for what they suffered. Thus I will grant that there are many cases where the first part of the conjunction is true, that is, there is no compensation in this life. To be treated unfairly, however, the second part of the conjunction must also be true.

There is the Judeo-Christian notion of compensation in the afterlife which includes two things. First, all memories of the incident are permanently blotted out of her mind in the afterlife so that as far as she is aware, such an incident never happened.⁷ Second, she is personally compensated in the afterlife for the suffering she did not deserve, in a way that more than outweighs whatever suffering she experienced in this life.⁸ William Rowe refers to the idea of compensation in the afterlife as known goods ‘that can be actual only if God exists’.⁹

For the purpose of my argument I am not assuming that God exists. I will make the same assumption that Rowe has used on occasion; the probability that God exists, given our background knowledge, is exactly 0.5.¹⁰ This leaves us in a state of not knowing if God exists and, hence, agnosticism regarding whether or not there is compensation in the afterlife. If we do not know if there is compensation in the afterlife then for any instance of evil, we do not know if the second condition for unfair treatment will be fulfilled. In other words, if we assume that the probability that God exists, on our background knowledge, is exactly 0.5, then for any instance of evil we must remain agnostic regarding whether or not all persons affected are treated fairly.

I have already argued, from the complexity of history, that the most rational position to hold regarding whether $A - B$ is negative, is agnosticism. If we must remain agnostic about the value of $A - B$ and also about whether all persons affected by a given instance of evil are fairly treated, then we must remain agnostic regarding whether or not any particular instance of evil is gratuitous, even when benefits to the sufferer are considered. Now let us turn our attention to an objection that can be raised from massive evils.

History contains massive evils such as the Holocaust, the Black Death and the activities of Genghis Khan. I am defining a *massive evil* as a large collection of evils that are linked together by a fairly noticeable common denominator. A massive evil has such a large negative net value that it would require some very substantial positive consequences to make up for it. Because of the number of the constituent evils making up a massive evil, we would expect that the justifying good consequences, if there are any, would be of impressive magnitude as well (either in quality or quantity) and thus quite obvious on the landscape of history. For the known massive evils of history, there is no compelling evidence for any justifying goods that stemmed from those events. Therefore, it might appear that we are rationally justified in concluding that $A - B$ is negative in those cases.

The objection makes two assumptions. First, we are in a better position to calculate A_{massive} and second, we are in a better position to calculate B_{massive} . I will argue from the complexity of history that we are actually in a worse position to calculate those two values.

Are we in a better position to calculate A_{massive} for massive evils? Recall that A was the net value of the evil with all its consequences. In the case of massive evils, what makes them massive is the large number of primary evil events all linked by some common denominator. For example, in the case of Genghis Khan, the number of people (events with their causal chains) affected by a first-hand encounter with his Tartar hordes would very conservatively number in the millions. This not only includes the number of people who were killed (hundreds of thousands) but the many times greater number of people who survived but were directly affected by the Khan's activities. The number of people who did not have a direct encounter with the hordes, but who heard about Genghis Khan at the time, would likely number in the tens of millions. Thus we have at least tens of millions of primary events to follow up. When we break the massive evil down into its constituent primary events, $E_1, E_2, E_3, \dots, E_n$, we find that the individual evils in the individual causal chains are relatively normal evils (a killing, a rape, a looting, a case of terrible anxiety) that have relatively normal negative intrinsic values. We call the entire set of killings, rapes and lootings a massive evil because they all happen at about the same time or are all perpetrated by the same person, group or natural disaster.

Our subjective feeling about massive evils is that A_{massive} is negative. We must remain objective about the calculation of A_{massive} however, and base our con-

clusions about A_{massive} upon an objective evaluation of the net values of all the constituent primary events. Since the massive evil consists of thousands or millions of primary events, in order to calculate A_{massive} we must first calculate the net value of each primary event with all its consequences to the end of history. Having done this, we must sum all of these net values to find the overall net value of the massive evil, A_{massive} . This can be represented as follows:

$$A_{\text{massive}} = A_{E_1} + A_{E_2} + A_{E_3} + \dots + A_{E_n}$$

We must begin with the first event (E_1) and calculate the net value of the event with all its exponentially increasing consequences to the end of history (A_{E_1}). As I have already argued, we must confess that our knowledge of the entire set of exponentially increasing consequences of E_1 , affecting an exponentially increasing number of causal chains to the end of history, is minuscule. The vast bulk of necessary information is missing. If we were missing knowledge of only a few consequences in one or two causal chains, then we might be able to make a reasonably good guess about A_{E_1} . But we are missing more than just knowledge of a few events. We are missing almost all of the requisite knowledge. In this case we are just as likely to be right as wrong in judging whether or not A_{E_1} is positive, not to mention *how* positive or negative it is. In this situation, the most rationally defensible position to hold regarding whether the actual ultimate value of A_{E_1} is negative or positive, is agnosticism. Thus A_{E_1} turns out to be a question mark in our calculation of A_{massive} .

When we move on to consider A_{E_2} , A_{E_3} , and so forth, we find the same situation. Our relevant knowledge for each is minuscule. The most rationally justifiable position to hold for each one is agnosticism; each one must be represented by an unknown number of unknown sign, positive or negative. When we attempt an objective calculation of A_{massive} , what we end up with is:

$$A_{\text{massive}} = \text{the sum of thousands or millions of unknown numbers.}$$

In a situation like this, it is absurd to think we are in a position to infer whether A_{massive} is negative. The most defensible position to take is to state that we are simply missing far too much necessary information. We must remain agnostic about whether A_{massive} is positive or negative. However, even if we were to grant that A_{massive} is negative, we would still have no rational justification for inferring that the ultimate value of a massive evil is negative, for our knowledge of B_{massive} is even smaller.

One problem in calculating B_{massive} is thinking of a world that is better than the one which contains A_{massive} . I argued earlier that we are mistaken if we believe that we can think of a better world than the actual one. The same argument applies here but even more so. In my initial argument I pointed out that we cannot simply propose deleting a specific instance of evil, for if we delete any event we must also delete all of its consequences to the end of history. In the case of a massive evil,

if God were to prevent the massive evil, he would be preventing thousands or millions of primary events, not to mention all their consequences to the end of history. Thus the closest possible world in which the massive evil did not occur would be radically different from this one. As I have already argued, to propose a better world, we must have sufficient information about this world and about the possible B-world such that we can compare the two and conclude that the possible world qualifies as a B-world. Our knowledge of this world, with its massive evils that have affected billions of causal chains to the end of history, is minuscule. We know even less about proposed worlds where billions of primary events have been altered, changing billions of causal chains. The problem involved in evaluating massive evils is many orders of magnitude more complicated than for evaluating individual evils. An objective evaluation of our situation would seem to indicate that the easiest position to defend is agnosticism regarding whether or not $A_{\text{massive}} - B_{\text{massive}}$ is positive.

Conclusion

I have provided objections to the first two forms of the evidential argument from evil distinguished by Russell. The consequential complexity of history and our lack of middle knowledge puts us in a position of having knowledge of only a minuscule portion of the consequences of any event, actual or proposed. This being the case, I have argued that we have insufficient information to inductively infer that evils that appear to be gratuitous are actually gratuitous. Furthermore, our almost complete lack of knowledge of the data necessary to know if an event is gratuitous makes it very likely that we would be mistaken about a very large number of events. This being the case, even if we do live in a world where there is no gratuitous evil, observations of a very large amount of evil that appear to be gratuitous should be exactly what we ought to expect. The complexity of history, therefore, poses a significant challenge to certain types of evidential arguments from evil that begin with our observations of evils that appear to be gratuitous.

Notes

1. I am using the word 'history' in the sense of 'a connected or related series of facts, events, etc., especially those concerning a specific group or subject', Walter Avis (ed.) *Funk & Wagnalls Standard College Dictionary: Canadian Edition* (Toronto ON: Fitzhenry & Whiteside, 1978), 636. Used this way, 'history' refers to all connected events, both past and future. I will place the endpoint of history at the end of the physical universe.
2. Stephen Jay Gould *Wonderful Life* (New York NY: W. W. Norton & Company, 1989), 292–323.
3. Alvin Plantinga 'God, evil, and the metaphysics of freedom', in M. Adams and R. Adams (eds) *The Problem of Evil* (New York NY: Oxford University Press, 1990), 86. Plantinga's paper was originally part of his book *The Nature of Necessity* (Oxford: Oxford University Press, 1974), 164–193.
4. Plantinga 'God, evil, and the metaphysics of freedom', 106.
5. Robert Merrihew Adams 'Middle knowledge and the problem of evil', *American Philosophical Quarterly*, 14 (1977), 109.

6. Bruce Russell 'Defenseless' in D. Howard-Snyder (ed.) *The Evidential Argument from Evil* (Bloomington and Indianapolis IN: Indiana University Press, 1996), 193–194. Russell distinguishes two other versions that I offer no comment on.
7. Isaiah 65.17.
8. Luke 16.25.
9. William L. Rowe 'Reply to Plantinga', *Noûs*, 32 (1998), 545.
10. *Idem* 'The evidential argument from evil: a second look', in Howard-Snyder (ed.) *The Evidential Argument from Evil*, 265–266.