

Moral responsibility without alternative possibilities

Introduction

A standard strategy for trying to show false the Principle of Alternative Possibilities (PAP) – the principle that alternative possibilities for action are required for moral responsibilityⁱ -- is what has come to be known as a Frankfurt-style counterexample or a Frankfurt story,ⁱⁱ after Harry Frankfurt's well-known kind of counter-example to PAP. In a typical Frankfurt story, a person P does an act A in circumstances that incline most people to conclude that P is morally responsible for doing A, but the circumstances involve some mechanism that would have operated to bring it about that P would have done A if P had not done A on his own. In the actual sequence of events presented in the counterexample, however, the mechanism does not operate, and P does do A on his own. So the Frankfurt story is designed to make us think that P is morally responsible for doing A in the actual sequence of events although it is not the case that P could have done otherwise than A.ⁱⁱⁱ

Although Frankfurt originally presented such a counter-example to PAP as part of an argument for compatibilism, it has come to seem to some philosophers as if Frankfurt stories teach a different lesson. On the face of it, it seems that the victim in a Frankfurt story could act indeterministically when he acts on his own, without being controlled by the intervener's mechanism. In that case, Frankfurt stories would show not that compatibilism is right, but rather that acting indeterministically does not entail having alternative possibilities. And if that conclusion is right, then it is possible to reject PAP without denying that moral responsibility entails indeterminism. Consequently, the rejection of PAP is itself compatible with libertarianism.

Some libertarians have argued, however, that it isn't possible to construct a Frankfurt story in which the victim acts indeterministically in the actual scenario in which he acts on his own, without being controlled by the intervener. In particular, David Widerker has maintained that all Frankfurt stories presuppose that *something* causes the victim to act as he does even when the counterfactual intervener's coercive mechanism doesn't operate.^{iv} That is because the mechanism (a fictional neuroscope, for example) has to respond to something in the victim; but, Widerker argues, what it responds to must be causally necessary for the desired act on the victim's part. If this were not the case, Widerker maintains, the victim would after all have a possibility for doing otherwise. So, for example, in some Frankfurt stories, if the counterfactual

intervener were to detect an inclination to an act A on the victim's part, then the intervener would intervene to produce not-A in his victim. If, however, the victim could suddenly do A without having previously had an inclination to do A, then the intervener's mechanism couldn't operate in time; and in that case, contrary to what the Frankfurt story is supposed to show, the victim would have had it in his power to do otherwise. So the inclination must be a causally necessary condition for the victim's doing A. But in that case not having an inclination to do A is causally sufficient for an agent's doing not-A. And so, contrary to appearances, Widerker concludes, Frankfurt stories presuppose a causally determined agent.

Elsewhere I proposed a Frankfurt story which, I argued, is immune to this criticism of Widerker's. It is a revised version of a Frankfurt story presented earlier by John Martin Fischer.^v Fischer's own example, like most Frankfurt stories, is vague about how the fictional coercive mechanism works and what it operates on; but for purposes of examining Widerker's argument, it helps to spell out the details of the coercive mechanism a bit more and to consider the theory of mind that a Frankfurt story presupposes. For that reason, I revised Fischer's example to make the operation of the coercive mechanism clearer. The revised version features a neurosurgeon named 'Grey', so I designated the example '(G)', after him. Here is the Frankfurt story, as I presented it earlier:

(G) Suppose that a neurosurgeon Grey wants his patient Jones to vote for Republicans in the upcoming election. Grey has a neuroscope which lets him both observe and bring about neural firings which correlate with acts of will on Jones's part. Through his neuroscope, Grey ascertains that every time Jones wills^{vi} to vote for Republican candidates, that act of his will correlates with the completion of a sequence of neural firings in Jones's brain that always includes, near its beginning, the firing of neurons a, b, c (call this neural sequence 'R').^{vii} On the other hand, Jones's willing to vote for Democratic candidates is correlated with the completion of a different neural sequence that always includes, near its beginning, the firings of neurons x, y, z, none of which is the same as those in neural sequence R (call this neural sequence 'D'). For simplicity's sake, suppose that neither neural sequence R nor neural sequence D is also correlated with any further set of mental acts.^{viii} Again for simplicity's sake, suppose that Jones's only relevant options are an act of will to vote for Republicans or an act of will to vote for Democrats.

Then Grey can tune his neuroscope accordingly. Whenever the neuroscope detects the firing of x, y, and z, the initial neurons of neural sequence D, the neuroscope immediately disrupts the neural sequence, so that it isn't brought to completion. The neuroscope then activates the coercive neurological mechanism which fires the neurons of neural sequence R, thereby bringing it about that Jones wills to vote for Republicans. But if the neuroscope detects the firing of a, b, and c, the initial neurons in neural sequence R, which is correlated with the act of will to vote for Republicans, then the neuroscope does not interrupt that neural sequence. It doesn't activate the coercive neurological mechanism, and neural sequence R continues, culminating in Jones's willing to vote for Republicans, without Jones's being caused to will in this way by Grey.

And suppose that in (G) Grey does not act to bring about neural sequence R, but that Jones wills to vote for Republicans without Grey's coercing him to do so.

That is the Frankfurt story; and, as I originally said in presenting it, it certainly seems as if Jones is morally responsible for his act of will to vote for Republicans, although it also seems true that it was not possible for Jones to do anything other than willing to vote for Republicans. In this Frankfurt story, however, there is nothing in advance of Jones's act to which the intervener's neuroscope responds. Rather, the intervener's mechanism is sensitive just to something in the process of the act itself. Widerker's reasons for supposing that the victim in a Frankfurt story cannot be acting indeterministically consequently do not apply to this Frankfurt story. It seems, then, that there is no obstacle to supposing that the victim in this Frankfurt story acts indeterministically.

In some recent work, however, this conclusion has been challenged. In this paper, I want to look at the objections raised against it by David Widerker, because they are clear, forceful, and representative of the general idea that has occurred also to others.^{ix}

The first objection

Widerker raises two objections to the conclusion that (G) is a successful Frankfurt story in which the victim is acting indeterministically, is morally responsible for what he does, and yet could not have done otherwise than he did. Of these, the first is one he himself discounts, but it is worth thinking about nonetheless, in my view.

The first objection is that in (G), as I formulated it, Jones's act of will to vote Republican in fact has to be causally determined, contrary to my claim that nothing in (G) precludes its being indeterministic. Here is Widerker's argument for this conclusion:

“ [in (G)] Jones's act of will to vote for a Republican candidate (henceforth 'W (R)') turns out to be causally determined by the neural firings a, b, c. This is so, since those events cause the completion of neural sequence R, which...is an event (process) that is correlated with W (R). For if a, b, c cause the completion of R, and the latter is correlated with W(R), then they also cause W(R).”^x

On this view of Widerker's, since the completion of the sequence is caused by the firing of the other neurons in the sequence, the completion of the sequence is causally determined; and since it is causally determined, so is the mental act with which it is correlated. Consequently, Widerker claims, my formulation of (G) does after all preclude Jones's act of will from being indeterministic.^{xi}

Widerker thinks that (G) is subject to his objection just because I made the mistake of claiming that a mental act is correlated with the completion of a neural sequence but that his objection would not apply if the example were revised so that a mental act is correlated with the entire sequence itself.

Now, Widerker is confused here about what I claimed. Although in (G) I did describe the correlation as one between a mental act and the completion of a neural sequence, I went on to point out in a footnote that, in my view, it is an open question how exactly the correlation should be understood. So my example was explicitly intended to leave vague the nature of the correlation between the mental and the neural, in order not to rule out any current theory of the relation between mind and brain except Cartesian dualism. But even if Widerker were right about the formulation of (G), I do not think that his objection would be successful.

As I originally presented the case, the initiating cause of the neural sequence in (G) – whatever exactly that is -- is itself indeterministic and to be understood in a way that doesn't preclude the indeterministic firing of the initial neurons of the sequence. Now there is some reason for thinking that the completion of a neural sequence indeterministic in origin is also indeterministic. In a quantum mechanical device in which a quantum event randomly generates

an electrical signal, we commonly consider the signal as well as its generating cause indeterministic, even though in the device the quantum event causes the signal. Some philosophers and neurobiologists also suppose that quantum events on the microlevel in the brain can have effects which are or produce indeterministic mental acts.^{xii} In cases such as these, we are accustomed to suppose that an event is indeterministic in virtue of being generated by something itself indeterministic. If this is right, then, if a mental act is correlated with the completion of a neural sequence initiated indeterministically, it will be indeterministic as well.^{xiii}

Another way to think about this same point is to consider the implications of denying my claim that the completion of a neural sequence is indeterministic if the initiation of the sequence is indeterministic. Suppose we reject this claim and hold that, for example, only the original quantum event in the sequence is indeterministic and that everything subsequent to it is causally determined. Then we will also have to say that in material objects the only indeterministic events are quantum indeterministic events at the microphysical level. Nothing else, and in particular nothing causally resulting from such quantum events, counts as indeterministic. But in human beings, a mental act of any sort is never correlated just with a single quantum event, on any reasonable view of the relationship of mind and brain. So if the only indeterministic events in material objects are microphysical quantum indeterministic events, then an indeterministic mental act isn't correlated with anything in the brain. Consequently, if there are indeterministic mental acts, they won't be correlated with material states or processes in human beings.^{xiv} Libertarians will therefore need to be committed to some sort of Cartesian dualism. But to me, at any rate, this conclusion seems unreasonable; a commitment to libertarianism does not carry with it a commitment to dualism.^{xv}

Suppose for the sake of argument, however, that whenever we say an event E is causally determined, we mean only that some event E1 occurred prior to the occurrence of E and that E1 is a causally sufficient condition for the occurrence of E.^{xvi} In that case, the firing of the last neuron in a neural sequence is indeed causally determined. Nonetheless, it is not at all clear that the mental event correlated with such a causally determined neural event is itself therefore causally determined or, if it is, that it is causally determined in the sense of causal determination libertarians take to be incompatible with libertarian freedom. That is because if an agent's act were causally determined and so not libertarianly free solely in virtue of being correlated with a

physical event causally determined by a preceding physical event, then no bodily act, such as the act of raising one's hand, could count as libertarianly free.

As Widerker explains in connection with his first objection,

“the neural sequence *must* be simultaneous with W(R) [the mental act of willing to vote Republican]. Otherwise, if R [the neural sequence correlated with that mental act] begins before the occurrence of W (R), then W(R) is causally determined by [the firing of neurons] a, b,c...”^{xvii}

But every bodily act is caused by a series of preceding physical events, including muscle contractions and neural firings. For any bodily act, there is a series of causes which begins before it and is *not* simultaneous with it. Before a person raises her hand, for example, there is a series of neural firings in the brain, culminating in the traveling of a neural signal down the spinal cord and through the peripheral nervous system, which in turn causes a series of biochemical events at the boundary of the nerves and the muscles, which in turn causes a series of biochemical events in the muscles, which in turn causes the muscles to contract. But the hand does not begin to move until the muscles contract. The act of raising one's hand is thus *not* simultaneous with the sequence of neural firings and muscle contractions, but is correlated instead with the completion of the whole sequence. The completion of that sequence, however, is causally determined by the preceding biological events. So, on the view expressed in Widerker's first objection, we will have to say that every bodily act is causally determined, in virtue of being correlated with the completion of such a sequence. In what sense, then, will any bodily act count as free in the libertarian sense for Widerker?^{xviii}

Widerker will no doubt want to say that a bodily act such as raising one's hand is free in a libertarian sense in virtue of being caused by an indeterministic act of will.^{xix} But if the indeterminism of that act of will can be somehow preserved through the chain of causes (whatever it might be) from the will through the series of causes involving the nerves and muscles to the act of raising one's hand in a way that is sufficient for libertarian freedom, then on what basis does Widerker conclude that the indeterministic origin of a sequence of neural firings cannot also be preserved through the chain of causes to its completion in a way that is also sufficient for libertarian freedom? If a bodily act can count as free in the libertarian sense in virtue of having an indeterministic act of will as the first in a series of causes, then the mental act

correlated with the completion of a neural sequence should also count as free in the same sense, in virtue of the sequence's completion having an indeterministic first cause.^{xx}

It would, of course, be much easier to reach agreement on the issues raised by Widerker's first objection to (G) if there were a generally accepted consensus on the way in which the mind is implemented in matter.^{xxi} But although neurobiology has made enormous advances in the last three or four decades, no one has much of any idea what the neurobiological correlate of the will is, let alone what the neurobiological correlate of an act of will is. And neither neurobiologists nor philosophers of mind (not Cartesian dualists either) are in a position to explain^{xxii} how a chain of causes could run from an act of the will to the nerves and muscles responsible for the motion of a bodily part such as a hand. Nonetheless, we do suppose that there is some sort of chain of causes from what we call 'an act of will' to the neuromuscular events that produce a bodily act such as raising one's hand. Similarly, unless we are Cartesian dualists, we do suppose as well that an act of will is implemented in the brain.

So if there are indeterministic acts of will, as libertarians suppose, then there must be some way of accounting for indeterminism in matter. As far as I can see, there are just two general ways of doing so. Either we can begin with indeterminism on the microphysical level and sum the effects of such indeterministic events, so that some higher-level event or act brought about by the indeterministic events is itself indeterministic.^{xxiii} Or we can suppose that top-down causation is possible, so that some higher-level material system itself operates indeterministically.^{xxiv} But insofar as it is a material system, the operation of such a higher-level system will still be correlated with a series of causes operating at a lower-level, as the motion of the hand is correlated with a series of causes operating at the lower level of the nerves and muscles. Consequently, if, as Widerker's objection presupposes, anything which is caused at all, even by an indeterministic cause, is causally determined, then neither of these ways of accounting for indeterminism in matter is possible. But, then, no indeterministic act could be implemented in matter, and this seems (to me at least) an unreasonable conclusion. As I said before, whether or not Cartesian dualism is right, it isn't entailed by libertarianism.

So, for these reasons, even if Widerker were right about the formulation of (G), I do not think his first objection would be successful, and the reasons for its failure are worth thinking about in this connection.

The second objection

Since Widerker himself thinks that his first objection doesn't apply if in (G) the mental act is correlated with a whole sequence instead of the completion of a sequence, he puts his main emphasis on his second objection. On his view, in (G) Jones "still maintains the power to refrain from his decision to vote for a Republican candidate and also has the power to act otherwise."^{xxv}

It may at first seem hard to understand why anyone would accept this conclusion, since (G) stipulates that the mental act of willing to vote for a Republican candidate is one that the intervener will cause in Jones if Jones himself doesn't freely will to vote Republican. Widerker's argument for his conclusion goes this way. Consider a scenario in which Jones is deciding with libertarian freedom how to vote but without the existence of any counterfactual intervener in the story. Widerker says,

"In that scenario, there would be no reason to think that Jones could not have decided otherwise. Now recall that, on Stump's view of decisions, once the neural firings a, b, c occur, Jones is bound to make W(R)... This means that the only way in which Jones could have decided otherwise in the above scenario, is by having the power to bring about the non-occurrence of a, b, c; a power that he would have before the occurrence of a, b, c and not after that. But if he has that power in the said scenario (as he surely does), he must also have it in the scenario featuring Grey. That the latter scenario includes a potentially coercive neuroscope does not change this fact, since its coercive influence would come into play only after the possible occurrence of x, y, z, that is, at a time that is later than the occurrence of a, b, c. Hence it does not affect Jones's power to bring about the non-occurrence of a, b, c."^{xxvi}

As this quotation makes clear, Widerker supposes that Jones's bringing about the firing of neurons a, b, and c is an act of Jones's and that it is an act antecedent to (and therefore different from) the act correlated with the completed neural sequence initiated by the firing of neurons a, b, and c. Because Jones has the power to do or to refrain from doing *this* act, Widerker argues, Jones retains the power to act otherwise in (G).^{xxvii}

The problem with Widerker's objection, in my view, is that it fails to take seriously what it is for the mind to be implemented in matter. As I said in presenting (G), (G) will not constitute a Frankfurt story for those libertarians who adopt Cartesian dualism, because (G) presupposes that the mind is implemented, somehow or other, in the brain and that a mental act is therefore

always implemented in a neural sequence. If (G) had been designed as a Frankfurt story intended also to be effective against dualist libertarians, then we could understand Widerker's objection in this way. The soul, which exists and operates independently of the body, makes a mental act, and this mental act then is the cause of a bodily event, which is the firing of the initial neuron or neurons in the sequence correlated with willing to vote Republican. But Cartesian dualism is ruled out, as one of the presuppositions of (G); and so, on the presuppositions of (G), any act on Jones's part – any act at all – will be implemented in some neural state. On Widerker's position, however, there will be mental acts not implemented in matter.

To see the point here, consider that if we take Widerker's second objection in conjunction with his first objection, Widerker's position rules out the possibility that the indeterminism in any act of will is explainable as the indeterministic firing of the initial neurons in the sequence correlated with that act of will. On the first of Widerker's objections, if something is caused at all, even if it is caused by something indeterministic, it can't itself be indeterministic. In his second objection, however, Widerker is supposing that if Jones wills indeterministically, then Jones causes the firing of the initial neurons in the neural sequence correlated with his act of will. But, on Widerker's own views, if the neurons of a neural sequence correlated with an indeterministic act of will fire because anything causes their firing, then whatever indeterminism there is has to occur *before* the firing of those neurons and thus before the start of that neural sequence. That is because, in virtue of being brought about by the willer, the firing of the initial neurons of a neural sequence is not indeterministic but is causally determined. On Widerker's views, then, an indeterministic mental act can never be implemented in the brain, because it will always occur before the neural sequence with which it is correlated and which it causes. If, however, an indeterministic act occurs only antecedent to the sequence of neural firings in the brain with which it is correlated, Widerker's position apparently presupposes some version of Cartesian dualism, according to which a mental act can take place in the absence of any neural firing. Jones's mental act to bring about a certain set of neural firings is not itself implemented in matter.

On the other hand, suppose that Widerker's position in fact eschews Cartesian dualism, and consider what follows.

Widerker's second objection argues to the conclusion that, contrary to appearances, in (G) Jones does have the power to do otherwise than he does. Since Jones's ability to bring about

or to omit bringing about the firing of neurons a, b, and c are the alternatives Widerker's objection claims to find in (G), Widerker must be conceiving of Jones's bringing about the firing of a neural sequence as an act of Jones's. As Widerker is at pains to point out, however, it is the case that Jones's act of bringing about the firing occurs before its effect, which is the actual firing of neurons a, b, and c. So, as I explained above, on Widerker's views Jones's act of bringing about the firing of a, b, and c (call this act 'A2') is not only an act of Jones's but also a different act from his act of will to vote Republican (call this act 'A1'), which does *not* occur before the start of the neural sequence with the completion of which it is correlated.

Now if Widerker's position is not wedded to Cartesian dualism, then A2 (Jones's act bringing about the firing of neurons a, b, and c) will itself be implemented in matter. If we put Jones in a brain scanning device when he does A2, *something* in the machine must light up while Jones is performing *this* act, *before* the effect of the firing of neurons a, b, and c occurs. Otherwise, we will have an act on Jones's part which occurs without any physical changes in Jones's neural system – and this is just to suppose that Cartesian dualism is correct. If, however, we eschew Cartesian dualism, then Jones's act A2 will also be correlated with a neural sequence, for example, one that begins with the firing of neurons r, s, and t. But, on Widerker's reasoning that Jones acts to bring about the firing of neurons a, b, and c, it apparently follows that Jones must act to bring about the firing of neurons r, s, and t, too (call this act 'A3'). Of course, if the mind is implemented in matter, then A3 itself will also be correlated with still another neural firing (of neurons u, v, and w); and, on Widerker's views, Jones will have to act (call this act 'A4') to bring about their firing -- and so on in an infinite regress. So if Widerker's position eschews Cartesian dualism, then, on Widerker's second objection, it appears that Jones must complete an infinite series of acts in order to do anything. On this reading of Widerker's position, it is still true that there is no mental act implemented in matter.

The problem with Widerker's second objection thus lies in his supposing that a willer such as Jones brings it about that neurons a, b, and c fire and that Jones's doing so is itself an act of Jones's antecedent to and separate from Jones's act of will to vote Republican. This is a mistaken supposition, in my view. Consider, for example, this case. When I think about the motion of an electron, which I can do at will (for example, in response to a request that I do so), then, on the assumption that the mind is implemented in matter, I bring it about that there are neural firings in my brain. The series of events in that neural sequence includes the motion of

atoms; and insofar as atoms move, the electrons that are among their constituents also move. So by thinking about the motion of an electron, I bring about the motion of atoms and their constituents. It would nonetheless be fatuous of me to claim that I can act to bring about the motion of an electron just by thinking about it. The only *act* I myself do is the mental act of thinking about the motion of an electron. Insofar as the mental is implemented in the material, it is true that this mental act of mine is implemented in a whole series of physical events, including the motion of more than one electron. But bringing about the motion of an electron isn't itself an act I do. Even if someone were contentious enough to dispute this claim, what seems as uncontentious as things get in philosophy is that bringing about the motion of an electron isn't *another* act of mine, separate from the mental act of thinking about the motion of an electron.

Similarly, when I raise my hand, I bring about a whole array of events at the physical, chemical, and biological levels, including, for example, the transfer of neurochemicals at the neuro-muscular junction and the contraction of muscles; and virtually all of these are antecedent to my hand's moving. But my bringing about any of these events, including the contraction of muscles in my arm, isn't another separate act of mine in addition to my raising my hand.

So Jone's *only* act in (G) is the mental act of willing to vote Republican. That act is indeed correlated with the firing of a neural sequence, but bringing about the firing of neurons a, b, and c isn't itself a separate act that Jones does. The firing of neurons a, b, and c is just part of the entire series of physical events in which the one mental act Jones does is implemented. Since this mental act is also the act that the counterfactual intervener would cause in Jones if Jones did not do it of his own accord, there are no alternative possibilities for action for Jones in (G), contrary to the claim of Widerker's second objection.

Frankfurt stories for dualists

Although (G) was not targeted at libertarians who are also Cartesian dualists, it is possible in my view to construct Frankfurt stories that also apply to dualists. Widerker considers and argues against one such set of Frankfurt stories, namely, those based on God's foreknowing what a person will freely choose, on the grounds that they in effect presuppose some sort of necessitation of supposedly free acts of will. In such Frankfurt stories, he says, the victim's decision is

“*metaphysically necessitated* or metaphysically determined by that [foreknowing] belief of God. Now, if a libertarian rejects as an instance of an agent’s acting on his own a scenario in which an agent’s decision is *nominally* necessitated by a temporally prior fact..., why wouldn’t he reject one in which it is metaphysically necessitated by a prior event?”^{xxviii}

My purpose here is not to examine Widerker’s objection to the Frankfurt stories based on divine foreknowledge. Rather, I want to consider roughly analogous Frankfurt stories that depend not on divine foreknowledge, but instead on divine middle knowledge. I will argue that Widerker’s sort of objection is not efficacious against these Frankfurt stories.

So suppose that Molinism is true, that there are true counterfactuals of freedom, describing what an agent S would freely do in circumstances C, and that God has middle knowledge of these true counterfactuals of freedom. Not all philosophers, of course, are convinced that there are true counterfactuals of freedom, but it has not been thought that an adherent of libertarianism must reject the view that God has middle knowledge. For the sake of argument, then, let it be the case that God does have knowledge of the counterfactuals of freedom.

Then we can construct a Frankfurt story that is a case of theology fiction, rather than the usual science fiction, along these lines:

(T) An omniscient God knows all the true counterfactuals of freedom. So for any set of circumstances God knows what Jones would freely do in those circumstances. Now suppose that in circumstances C Jones would freely will to vote Republican; suppose also (for reasons best known to himself) that God wants Jones to will to vote Republican. In case it is contentious whether or not God always foreknows what the circumstances will be (in the way God’s foreknowing free acts of will is contentious from Widerker’s point of view), we can ascribe to God this policy: if the state of the world at some time t_1 (where t_1 is before Jones forms an act of will about voting) does not determine what the circumstances will be at t_3 (where t_3 is the time of Jones’s act of will), *or* if the state of the world at t_1 determines that the circumstances at t_3 will be not-C, then at t_2 God wills that at t_3 Jones will to vote Republican.^{xxix} (One could think of God’s action here as a case of God’s hardening Jones’s heart.) This policy requires that God knows what the current conditions of the world are sufficient to determine, but this knowledge of

God's isn't a case of foreknowledge or based on foreknowledge. It is a matter only of knowledge of the current conditions of the world together with a knowledge of the physical laws of the world. It seems clear that an omniscient God will know these things, and that nothing about God's knowledge of the current conditions of the world or the physical laws of the world metaphysically necessitates some act of will on the part of some creature. Consequently, either at t_3 the circumstances are C and Jones freely wills to vote Republican, or else God wills at t_2 to bring it about that at t_3 Jones wills to vote Republican.

And now suppose that at t_3 the circumstances are C and Jones freely wills to vote Republican, so that God does not intervene in any way with Jones's act of will regarding voting. Then it is the case that Jones freely wills to vote Republican and is responsible for his act of will, but it is also the case that Jones has no alternative except to will to vote in this way.

Since this Frankfurt story is not based on any correlation between mind and brain or on any compositeness in an act of will, it is as effective against dualists as against other theories of the nature of the mind more friendly to the supposition that the human mind is implemented in matter.^{xxx}

It is also logically possible that every act of will Jones ever makes in the entire course of his life is like the act of will in (T), freely willed by Jones but such that God, acting out of middle knowledge, would have brought it about if Jones had not freely willed it. In that case, (T) can be transformed into a global Frankfurt story, in which all of Jones's acts are under the control of a counter-factual intervener who, as it happens, never actually intervenes.

Therefore, it is possible to construct a Frankfurt story that is a case of theology fiction, in which God is the intervener, and that is based on divine middle knowledge. In (T), if God knows that the circumstances will be C , God does not act on the victim to cause the victim to form some act of will W ; but if it is not the case that God knows that the circumstances will be C , then God does intervene and causes the victim to form W . Here all the worry about antecedent causes acting on the victim or antecedent acts on the victim's part is manifestly nugatory since middle knowledge is not based on knowledge of the causes of an agent's will and the example is effective also against Cartesian dualists who suppose that a free act of will is not composite. Furthermore, as I said, this reasoning leading to the construction of (T) can be generalized to encompass all the acts of the victim's life. In that case, it is possible to construct a Frankfurt

story in which there is no alternative possibility for the victim for any act he ever does. Nonetheless, the victim seems clearly responsible for his own acts, since in such a globalized theology fiction story God doesn't in fact cause the victim to do *anything* he does.

So Molinism is sufficient for Frankfurt-stories (even global Frankfurt stories) effective also against Cartesian dualists. Molinism is controversial, as I said above, but it would come as a surprise to many libertarians to discover that they could retain their commitment to libertarianism only if they rejected Molinism. On the other hand, if, as I argued in presenting (G), libertarianism does not require the acceptance of PAP, then the fact that we can use Molinism to generate Frankfurt stories does not show that libertarianism and Molinism are incompatible.

Conclusion

It seems to me therefore that neither Widerker's original nor his renewed attack on Frankfurt stories is successful. Consequently, Widerker has not given us a reason to doubt that Frankfurt stories show what they clearly appear to show, namely, that alternative possibilities are not necessary for moral responsibility or for indeterministic free acts of will.

ⁱ Or for freedom, on certain construals of freedom and of PAP.

ⁱⁱ See, for example, Harry Frankfurt, "Alternate Possibilities and Moral Responsibility", *Journal of Philosophy* 66 (1969) 829-839; reprinted in Harry Frankfurt, *The Importance of What We Care About*, (Cambridge: Cambridge University Press, 1988), pp.1-10.

ⁱⁱⁱ See also my discussion of Frankfurt stories in "Intellect, Will, and Alternate Possibilities", reprinted in John Martin Fischer and Mark Ravizza, *Perspectives on Moral Responsibility*, (Ithaca, NY: Cornell University Press, 1993), pp.237-262, "Persons: Identification and Freedom", *Philosophical Topics* 24 (1996) 183-214; "Libertarian Freedom", in *Faith, Freedom, and Rationality: Philosophy of Religion Today*, ed. Daniel Howard-Snyder and Jeff Jordan, Rowman and Littlefield, 1996, pp.73-88; "Alternative Possibilities and Moral Responsibility: The Flicker of Freedom", *The Journal of Ethics*, 3 (1999), 299-324.

^{iv} David Widerker, "Libertarian Freedom and the Avoidability of Decisions", *Faith and Philosophy*, 12 (1995a) 113-118, and "Libertarianism and Frankfurt's Attack on the Principle of Alternative Possibilities", *The Philosophical Review* 104 (1995b) 247-261.

^v Fischer's version of this Frankfurt story can be found in "Responsibility and Control", *Journal of Philosophy* 89 (1982), p.26; this paper is reprinted in *Moral Responsibility*, ed. John Martin Fischer, (Ithaca, NY: Cornell University Press, 1986), pp. 174-190.

^{vi} By 'wills' in (G), I mean one mental act of willing, as distinct, say, from a persistent state of will of the sort Barkis had in mind when (in Dickens's *David Copperfield*) he told Davy to say "Barkis is willing".

^{vii} Not every philosopher of mind, of course, supposes that there are any regular correlations, even non-law-like correlations, between mental and neural states. If there are no regular correlations, or even if the regular correlations are violated a certain amount of the time, then Grey's neuroscope won't work. In that case, to make a suitable Frankfurt-style neuroscope, we would need to postulate a very fancy neuroscope or a much smarter neurosurgeon, so that the neurosurgeon can tell in every case what mental state will exist at the completion of any given neural process. I don't see, however, that the degree of fantasy in the neurobiology fantasy story affects its ability to serve as a Frankfurt-style counterexample. Furthermore, I also think that recent research in neurobiology strongly suggests there is a regular correlation between neural states and mental states for normal adult human beings, so that, for example, the mental state of seeing something regularly correlates with neural states in the occipital lobe; it doesn't correlate, not even a very small percent of the time, with states in, say, the pituitary.

^{viii} The example doesn't require this simplifying assumption. If the firing of the initial neurons of each neural sequence were correlated with more than one set of mental acts, then the neurosurgeon's coercive mechanism would interfere with much more than it needs to interfere with for Grey's purposes, but this state of affairs doesn't alter the efficacy of the neuroscope in bringing about Grey's end.

^{ix} See, for example, Stewart Goetz, "Stump on Libertarianism and the Principle of Alternative Possibilities," *Faith and Philosophy* 18 (2001) 93-101; Derk Pereboom, *Living Without Free Will*, (Cambridge: Cambridge University Press, 2001), esp. pp.11-12; and Derk Pereboom, "Alternative Possibilities and Causal Histories", *Philosophical Perspectives* 14 (2000) 119-138. For an excellent discussion of the issues which considerations of Frankfurt stories are meant to help adjudicate, see Michael McKenna, "Source Incompatibilism, Ultimacy, and the Transfer of Non-Responsibility," *American Philosophical Quarterly* 38 (2001) 37-52.

^x David Widerker, "Frankfurt's Attack on the Principle of Alternative Possibilities: A Further Look", *Philosophical Perspectives* 14 (2000), pp.185-186.

^{xi} In correspondence, William Hasker has raised an objection that is related to Widerker's. He says, "by the time ... [the initial neurons in a sequence have fired], it is *already decided* how Jones will vote.... So the decision, the act of will, *has already occurred* prior to the initiation of those neural sequences."

Consequently, he argues, “Jones’ decision about how to vote must have *preceded* the sequence of neural firings that begins with a-b-c or x-y-z... Now, let’s say that the decision is correlated with a previous series of neural firings. What is important to see is that, *at any moment before the end of this “decision-sequence,” it is as yet undetermined how Jones will vote. So if Grey’s neuroscope is tuned to respond to something in this prior series, then if the neuroscope fails to interfere, it is still possible that Jones will vote Democratic.*” There are two problems with this objection of Hasker’s, in my view. First, if Jones’s deciding to bring about the firing of neurons a, b, and c is itself correlated with a prior neural sequence, as Hasker’s remarks imply, then this sequence will also have a beginning, say, the firing of neurons t, u, and v; and, on Hasker’s reasoning, Jones brings about the firing of these neurons. But, on Hasker’s reasoning, that bringing about is itself correlated with a neural sequence whose initial neural firings Jones also brings about -- and so on, in an infinite regress. Second, Hasker suppose that somehow, between the beginning and the end of a neural sequence Jones has alternative possibilities for action. That is, we are to imagine a neural sequence beginning with the firing of neurons a, b, and c and ending in the firing of either neuron n_R or n_D . If it ends in n_R , Jones decides to vote Republican; if it ends in n_D , Jones wills to vote Democratic. And it is up to Jones which way the sequence ends; Jones therefore brings about the firing of either n_R or n_D . But, then, consider Jones’s act of bringing about the firing of either neuron. Presumably, that bringing about is also correlated with a neural sequence. (If not, then there is a mental act of Jones’s which is correlated with no neural sequence, and Cartesian dualism is presupposed.) But if it is correlated with a neural sequence, then we can iterate Hasker’s reasoning and again generate an infinite regress.

^{xii} An approach of this sort is taken, for example, by Robert Kane, *The significance of Free Will*, (Oxford: Oxford University Press, 1996); see also his “Responsibility, Luck, and Chance: Reflections on Free Will and Indeterminism”, *Journal of Philosophy* 96 (1999) 217-240.

^{xiii} It makes a difference to my argument that the indeterministic event in question occurs within the victim and that the whole causal chain generated by the indeterministic cause is confined to the victim’s nervous system. (I have argued elsewhere that the indeterminism requisite for free will and moral responsibility has to be located in the agent’s own intellect and will. In addition to the papers already cited in this article, see my “Aquinas’s Account of Freedom: Intellect and Will”, *The Monist* 80 (1997) 576-597 and “Augustine on Free Will”, in *The Cambridge Companion to Augustine*, ed. Eleonore Stump and Norman Kretzmann, [Cambridge: Cambridge University Press, 2001], pp.124-147.) If what were at issue were instead some indeterministic event outside the agent which together with the laws of nature and the whole state of the universe, including other indeterministic events elsewhere, causally determined an effect E in the agent, then it would be a matter of greater contention whether E counts as indeterministic or causally determined. (On my view, in neither case would we have the indeterminism requisite for free will and moral responsibility.) I am grateful to John Martin Fischer for calling to my attention the need for this footnote.

^{xiv} As I have pointed out elsewhere (“Control and Causal Determinism”, in Sarah Buss and Lee Overton, ed., *Contours of Agency: Essays in Honor of Harry Frankfurt*, [Cambridge, Mass.: MIT Press, forthcoming]), ‘correlation’ and its related terms have become common in neurobiology as a way of pointing to the connection between the mental and the neural without specifying much about the nature of that connection. But whatever exactly the correlation in fact is, it requires that the mental act does not occur independently of any neural activity. So the kind of correlation a Cartesian dualist might see between a mental act of an immaterial soul and some brain state caused by the mental act and subsequent to it is not the sort of correlation at issue here.

^{xv} It may be helpful to clarify the point to ward off misunderstanding. I am not here claiming that Cartesian dualism is false or that anything in my remarks constitutes an argument against Cartesian dualism or that libertarians ought to reject Cartesian dualism. My point is only about the connection between libertarianism and dualism. Not all contemporary libertarians are Cartesian dualists, and it would come as a surprise to them, and to me, to discover that their libertarianism committed them to

accepting that particular theory of the relationship of the mind to the body.

^{xvi} I am grateful to William Rowe for helping me see that this possibility needs to be considered.

^{xvii} Widerker 2000, p.198, fn.11.

^{xviii} In correspondence, McKenna makes a point relevant to this discussion. He says, “I see two events as related via a deterministic causal relation just in case the following is true: the occurrence of the one event *c*, is such that the fact of its occurrence, combined with some true law of nature (while holding in place some background conditions), entails the fact of some causal consequence, *e*. That describes a deterministic relation, even in a universe that allows indeterminism.” But consider the mental act of willing to raise one’s hand, which is followed by the bodily act of raising of one’s hand. The mental act is not identical to the bodily act, since it can occur in the absence of the latter; but, ordinarily, we suppose that the bodily act occurs because of the mental act, which causes it. Now, given the laws of nature and the ordinary background conditions (normal neural function, normally functioning bodily parts, the absence of outside intervention) the fact of the occurrence of the mental act entails the fact of the occurrence of the bodily act. But normally if we suppose that the act of will was free, the bodily act was also free, even though we can trace the causal origins of the motion of the hand back to the mental act (and the correlated events in the brain). On McKenna’s position, we would have to reject this normal supposition.

^{ix} In correspondence, Widerker points to the distinction between an act that is free *simpliciter* and one which is free derivatively, where by ‘a derivatively free act’ Widerker says he means an act that is caused in an appropriate way by an act that is non-derivatively free or free simpliciter. But if an act can be free in a libertarian sense, even derivatively free, in virtue of being caused by a non-derivatively free act, then the point of my response remains. If the freedom of the original indeterminism can be preserved through a causal chain in the case of derivatively free acts, why can’t the indeterminism of the original firing of a neural sequence be preserved through a causal chain to its completion?

^x In a footnote (Widerker 2000, p.198, fn.12) Widerker raises yet another objection to (G) based on the claim that the exact time at which an act or event occurs is essential to it. I have not discussed this objection because the claim on which it is based seems to me very counter-intuitive. It seems to me clearly true, for example, that Franz Stangl could have hesitated a second longer and so formed his decision to accept the job of commandant of Treblinka a second later than he did; but on Widerker’s view, this is false. On Widerker’s view, the closest we can come to making such a sensible claim is to say that Stangl could have formed a different decision from the one he did form but that that different decision would have shared various features with the decision Stangl actually formed.

^{xi} See, for example, Pereboom 2000, p.123, where Pereboom says that in order to assess (G) “one needs to know more about the psychological features of the act performed by the agent to cause the neural process.” As far as I know, no one is currently in a position to provide a full and satisfactory explanation of the way in which what we refer to as a mental act brings about neural firings.

^{xii} At least not to the satisfaction of most other neurobiologists or philosophers.

^{xiii} An approach similar to this is taken by Kane 1996 and 1999.

^{xiv} This is the approach taken by John Dupre in “The Solution to the Problem of the Freedom of the Will”, *Philosophical Perspectives* 10 (1996) 385-402; see also his book *The Disorder of Things*, (Cambridge: Harvard University Press, 1993). For an interesting criticism of Dupre’s approach, see Pereboom 2001, pp.72-74.

^{xv} Widerker 2000, p.186.

^{xvi} Widerker 2000, p.186.

^{xvii} In correspondence, Widerker puts the point this way. He says that I need to give an explanation of how it is that Jones has the power to refrain from willing to vote Republican in the absence of the counterfactual intervener, and he argues that whatever explanation I give will commit me to holding that Jones retains this power in the case involving Grey. Widerker thinks this because, as I explain in

this section of this paper, he supposes that Jones has the power to bring about or to refrain from bringing about the firing of neurons a, b, and c. But this power, on Widerker's view, remains in (G). As I argue here, however, I think it is a mistake to take Jones as bringing about a neural firing. What Jones has in his power to do in the absence of the counterfactual intervener is to will or to refrain from willing to vote Republican. While it is true that if he wills to vote Republican, the neural series beginning with the firing of neurons a, b, and c is completed, it is at best seriously misleading to claim that Jones brings about the firing of neurons a, b, and c. The firing of those neurons is not something Jones does, in an act antecedent to and separate from his act of will to vote Republican. As I argue here, the only act Jones has the power to bring about or refrain from bringing about in the absence of the intervener is the act of will to vote Republican. But *this* act of will is not one that Jones can refrain from bringing about in (G).

^{xxviii} Widerker 2000, p.188 (footnotes omitted).

^{xxix} It is compatible with my description of the conditions in which God intervenes that the circumstances at t3 be C, only not determined at t1 to be C at t3. Since, however, my Molinist Frankfurt story stipulates that the true counterfactual of freedom in this case is that in circumstances C, Jones would freely will to vote Republican, it cannot be the case that God intervenes to cause Jones to will to vote Republican and the circumstances at the time of Jones's act of will are C. So it needs to be part of God's policy that if he does intervene, he also wills at t2 that the circumstances at t3 be not-C. But nothing rules out God's having this policy; that is, nothing rules out God's determining the circumstances as well as Jones's act of will if and when God intervenes. And if God does determine the circumstances in this way, then nothing in the description of God's intervention is incompatible with the counterfactual of freedom stipulated to be true in the Frankfurt story. There is no conflict between that counterfactual of freedom and the claim that in circumstances not-C Jones wills non-freely to vote Republican. I am grateful to William Rowe for calling my attention to the need to make this point clear.

^{xxx} In *The Emergent Self* (Ithaca: Cornell University Press, 1999), William Hasker considers and rejects a Frankfurt story based on counterfactuals of freedom. Hasker says of the victim in his version of such a Frankfurt story, "if he [Jones] were to choose against ... [the] wishes [of the counterfactual intervener], no reason has been given why he would not be able to carry out his choice in action." (p.93) This conclusion is correct as regards Hasker's version of the Frankfurt story, which is simpler in significant respects than the version I have given here. But Hasker's conclusion is not correct as regards the Molinist Frankfurt story I have given. In my version of this sort of Frankfurt story, God's policy with regard to intervention is the reason why Jones would not be able to form any act of will other than the one he does.