

The Kane-Widerker Objection to Frankfurt Examples

James Cain

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Abstract I will argue that the Kane-Widerker objection to Frankfurt examples is much weaker than is generally recognized. The Kane-Widerker objection holds that proponents of Frankfurt examples beg the question against incompatibilist accounts of free and responsible action by constructing examples that tacitly assume a compatibilist account of moral responsibility; that is, they assume that one can have non-derivative responsibility for choices that were not undetermined prior to their occurrence. The notion of an event, E , being ‘undetermined prior to its occurrence’ is ambiguous. It can mean either (1) with respect to each time t_0 prior to E ’s occurrence, it is not the case that at t_0 E ’s occurrence is determined to take place, or it can mean (2) with respect to the whole collection of times prior to E ’s occurrence, E ’s occurrence is not determined to take place. Kane’s argument shows that (under certain constraints) if a choice is to be undetermined (in the second sense) prior to its occurrence, then a prior-sign Frankfurt example cannot be successful. But he fails to show that prior-sign Frankfurt examples cannot be constructed in which the choice is undetermined (in the first sense) prior to its occurrence, and he would need to do so in order to sustain his charge that those using Frankfurt examples beg the question against traditional incompatibilist accounts of responsibility. Widerker’s argument avoids the above problem, but at the cost of only applying to a rather restricted set of Frankfurt examples.

Keywords Frankfurt example · Free choice · Kane/Widerker objection · Principle of alternate possibilities · Moral responsibility · Undetermined action

Among the many objections that have been raised against Frankfurt examples it seems to be generally accepted that the most pressing difficulty—at least for examples of the ‘prior-sign’ variety—is the Kane-Widerker objection.¹ Though I hold that Frankfurt

¹The objection has also come to be known as the *dilemma defense*, the *prior-sign dilemma defense*, and the *Indeterministic World Objection*. It is found in Kane (1985: 51; 1998 142–44; 2005: 87–88) and Widerker (1995). See also Ginet (1996, esp. 407–409) and Wyma (1997, esp. 64–66). For a review of the literature on Frankfurt examples see Fischer (2002) and (2011).

J. Cain (✉)

Philosophy Department, Oklahoma State University, 246 Murray Hall, Stillwater, OK 74078-5064, USA
e-mail: james.cain@okstate.edu

examples are highly problematic (Cain 2003, 2004, 2014), I will argue that the Kane-Widerker objection is much weaker than is generally recognized.

Before turning to Kane and Widerker's objections let us briefly review the general structure of Frankfurt examples. A standard Frankfurt example tells a story with the following components: (1) in the 'actual' course of events which takes place over a given time interval an agent does something for which he or she is morally responsible (we will call the agent's action the *target event*); (2) a mechanism is present which in the actual course of events does not interfere with the activity of the agent or contribute to the bringing about of the target event but is such that it would have brought about the target event had it been 'activated'; and (3) there is (implicitly) assumed to be a set of acceptable parameters for each time in the interval such that if the parameters were to be violated then the mechanism would be activated, but if the parameters were never to be violated then, though the mechanism would not be activated, the target event would be guaranteed to take place. Most notably Frankfurt examples are used with the intent to show that one can be morally responsible for performing an action despite the fact that one could not do otherwise.

Typically some further restrictions are placed on Frankfurt examples. The target event is often taken to be a time-indexed event (e.g., a decision at a given moment of time or over a fixed time span). The target events that are considered are often restricted to "mental acts such as deciding, choosing, undertaking, forming an intention, that is, mental acts that for the libertarian constitute the basic *loci* of moral responsibility." (Widerker 1995: 247) I will follow Kane and Widerker in holding to these restrictions.

The most common type of Frankfurt example is a *prior-sign example*. Here it is assumed that if the Frankfurt mechanism were to be activated so that it interfered with the actions of the agent, it would be triggered by a 'sign' that takes place prior to the time, t , at which the target event is scheduled to take place. Such a sign is commonly called a *triggering event*. I will also speak of such a sign as a *positive triggering event* or simply as a *positive trigger*. In order for a prior-sign Frankfurt example to be successful it must be the case that a necessary condition for the agent's not performing the target event on his or her own is that *some* positive triggering event occurs. This does not imply that any particular positive triggering event must itself be necessary for the agent's not performing the target event on his or her own.

Prior-sign examples may also allow for the occurrence of signs prior to t which indicate that the Frankfurt mechanism will not have to be activated. I will refer to such a prior sign as a *negative triggering event* or a *negative trigger*. In some prior-sign examples, there is a fixed time, t_0 , prior to t , by which a positive triggering event must take place if one is to take place at all. In such examples the lack of a positive trigger by t_0 will count as a negative trigger. It should be noted that not all prior-sign Frankfurt examples require the possibility of negative triggering events.² This distinction will be important to our discussion since Kane's argument will purport to show that it is impossible to construct any prior-sign Frankfurt example that does not beg the question against libertarian accounts of free and responsible action, whereas Widerker's argument will assume that we are dealing with prior-sign examples that include negative

² So, for example, Widerker and McKenna (2003: 10) cite "necessary condition examples" (along the lines of Pereboom's (2001: 18–28) "Tax Evasion" example) as prior-sign examples. Necessary condition examples employ positive triggers but not negative triggers.

triggers and argue that such examples beg the question against libertarian accounts of free and responsible action.

In addition to prior-sign examples a number of other Frankfurt-style examples have been developed, the best known of which are Mele-Robb-style cases, “internal-sign examples”, and “blockage cases”.³ In the Mele and Robb (1998) examples, there are no *prior* signs; rather what ‘triggers’ the mechanism to interfere with the agent is the agent’s not performing the target event on his or her own at the time it is scheduled to occur.⁴ In internal-sign examples (e.g., Stump 1999) it is assumed that the target event is—or has a neurological correlate that is—a temporally extended process. If during the time the target event is scheduled to occur an unsuitable process begins to develop then the Frankfurt mechanism is activated to bring about the target event. (For example, if the target event is Jones’s deciding to do *X*, and a process begins to take place in Jones’s brain that is associated with her deciding to do *Y* instead, then the mechanism will be triggered and cause the decision to do *X*.) Here because the mechanism can still be triggered after the point at which the target action (or its neurological correlate) begins to occur the example does not qualify as a prior-sign example. In a blockage example (e.g., Hunt 2000) there are no prior signs. In the actual series of events that takes place the agent’s action is unhindered, and yet somehow all alternatives to the events in this series are blocked from taking place.⁵

For the purposes of our discussion I will focus on prior-sign examples. The Kane-Widerker objection appears to have been originally designed with prior-sign examples in mind. As we shall see Widerker’s objection relies on the assumption that we are dealing with a prior-sign example—in fact a prior-sign example with negative triggering events. Kane’s argument may be thought to have a wider extension than just prior-sign examples, but it was certainly intended to apply to such examples, and the problematic feature of his argument that I wish to discuss comes out clearly when we restrict our discussion to prior-sign examples.

Kane’s objection

Let us begin with Robert Kane’s version of the objection.⁶ Kane argues that it is impossible to construct a Frankfurt example without begging the question against incompatibilist and libertarian accounts of free and responsible choice. As an example

³ To a large extent these kinds of Frankfurt examples may have been developed to circumvent the difficulties pointed out by the Kane-Widerker objection. For a survey see Fischer (2002) and Widerker and McKenna (2003).

⁴ In the Mele-Robb example the Frankfurt mechanism is busy in the background prior to time *t*, but does not interfere with the agent prior to *t*. At *t* the mechanism interferes and brings about the target event if and only if at *t* the agent does not perform the target event on her own.

⁵ Blockage examples do not fit the format for standard Frankfurt examples that I laid out earlier, though they bear some resemblance to Frankfurt examples. I mention them here because they have come to be discussed in the literature, but I do not consider them to be genuine Frankfurt examples.

⁶ Kane does not claim that all actions done of our own free will for which we are morally responsible are “undetermined actions for which we could have done otherwise”. (Kane 2000: 72) But he holds that acts in which there is an element of non-derivative responsibility are of this sort and that ultimately all responsibility traces back to actions for which we have non-derivative responsibility. It is best to take Kane argument as posing a dilemma for those who wish to construct Frankfurt examples that apply to choices of this sort. I will henceforth assume that we are dealing with such cases.

Kane considers a case in which the target event is a choice to be made by Jones. He argues:

Suppose Jones's choice is *undetermined* up to the moment when it occurs, as many incompatibilists and libertarians require of a *free* choice. Then a Frankfurt controller, such as Black, would face a problem in attempting to control Jones's choice. For if it is undetermined up to the moment when he chooses whether Jones will choose A or B, then the controller Black cannot know *before* Jones actually chooses what Jones is going to do. Black may wait until Jones actually chooses in order to see what Jones is going to do. But then it will be too late for Black to intervene. Jones will be responsible for the choice in that case, since Black stayed out of it. But Jones will also have had *alternative possibilities*, since Jones's choice of A or B was undetermined and therefore it could have gone either way. Suppose, by contrast, Black wants to ensure that Jones will make the choice Black wants (choice A). Then Black cannot stay out of it until Jones chooses. He must instead act *in advance* to bring it about that Jones chooses A. In that case, Jones will indeed have no alternative possibilities, but neither will Jones be responsible for the outcome. Black will be responsible since Black will have intervened in order to bring it about that Jones would choose as Black wanted.⁷

A couple of preliminary remarks are in order. First, note that Kane supposes that the choice in question is a momentary event. I will follow this assumption throughout this discussion. Second, it would of course beg the question against an incompatibilist to simply *assume* that a free and morally responsible choice can be causally determined (in the relevant sense) and then hold that the controller can decide whether or not to interfere depending on whether he recognizes the presence of a causal process which if not interrupted will deterministically lead to the appropriate choice. On the other hand, if the dilemma Kane raises for the controller were to be solved (in a non-question-begging way) so that the controller can guarantee that Jones makes the desired choice, then there might be grounds to *conclude* that a free and morally responsible choice can actually be made under conditions (which might include the presence of a Frankfurt device) in which it is determined that the choice will be made (though perhaps it is not determined that the choice will be made freely and with responsibility). What cannot simply be *assumed* is that Jones's free and responsible choice can result from a deterministic causal process that operates independently of the Frankfurt mechanism. Furthermore, since the incompatibilist Kane has in mind holds that free and responsible choices are not predetermined by antecedent causal processes, to present a persuasive Frankfurt example one would need to solve the controller's dilemma in such a way that Jones could make the choice under circumstances in which the choice is not brought about by the Frankfurt mechanism or by any deterministic process that proceeds independently of the operation of the Frankfurt mechanism.

Let Jones's choice of A at the time in question be the target event, and let t be the time at which the target event is to take place (if it takes place at all). The controller must set parameters for an interval of time leading up to, but not including, t . The challenge to the controller set by Kane is to develop the parameters in such a way that the following two conditions hold:

⁷ Kane (2005: 87–88). For Kane's original discussion, which he summarized here, see Kane (1985: 51).

- (1) It is possible for the target event to occur in such a way that both (a) there are no violations of parameters prior to its occurrence, and (b) the occurrence of the target event is undetermined “up to the moment when it occurs” by any process that operates independently of the controller’s mechanism
- (2) If no violation of parameters occurs, then the target event must occur.

Kane does not think that these conditions can be met. We can lay out Kane’s reasoning as follows. Take a possible history H in which the target event occurs in a way that satisfies (1). Consider an initial segment H' of H which includes just the moments of time prior to t . The way parameters have been set allows H' to occur. How might H' continue at time t ? At t it is “too late” for the controller to intervene, and by condition (1) no other process has taken place that determines that the target event will occur. So one way H' could continue is that at t the target event does not occur. Thus by allowing H' to take place the would-be controller loses control and allows the possibility that the target event fails to occur. Thus condition (2) fails.

We must now assess Kane’s argument. I will argue that the notion of an event’s being undetermined *up to the moment it occurs* is ambiguous. If Kane’s challenge is read in terms of one reading of this notion, then his argument succeeds in showing that his challenge to the controller cannot be met; however this is a rather atypical understanding of an event’s being undetermined and it does not capture what is typically involved in the libertarian’s claim that free and responsible choice requires indeterminism. The second reading of the notion of an event’s being “undetermined up to the moment it occurs” captures the libertarian notion, but if Kane’s challenge is read in terms of it then his argument fails.

To say that an event E is undetermined *up to the moment it occurs* could be to say either:

- (U1) With respect to each time t_0 prior to E ’s occurrence, it is not the case that at t_0 E ’s occurrence is determined to take place.
- (U2) With respect to the whole collection of times prior to E ’s occurrence, E ’s occurrence is not determined to take place.⁸

If we require the controller in a Frankfurt example to allow the target event to be undetermined up to the moment it occurs in the second sense (U2), then Kane appears to be correct in saying that it cannot be done. (U2) however gives us a notion of an event’s being undetermined that goes far beyond the requirements of typical incompatibilists and libertarians. To see this, imagine the following variation on the atomism of Epicurus. Let us say that the world is composed of a finite number of point-mass atoms moving through a void (say, an absolute Euclidian space); the motion of the atoms is at all times continuous (and thus the position of an atom at any moment is the limit of its positions at times leading up to that moment⁹) and two atoms cannot occupy

⁸ (U1) says that for each moment t_0 that precedes time t , at t_0 it is not yet determined that E will take place at t . (U2) makes a different claim. It says that if we take the whole history of what happens prior to t even that does not determine that E will take place at t . As we shall see, (U2) makes a much stronger claim than (U1).

⁹ To spell it out the notion of continuity more precisely, the motion of a point mass particle A is *continuous* at time t provided that the following condition holds: If A is at spatial point P at t , then for any distance $\varepsilon > 0$, there is a $\delta > 0$ such that for any time t' , if $|t - t'| < \delta$ then the distance from A to P at $t' < \varepsilon$.

the same point at any one time. Imagine further that the motion of the atoms is highly random. Let us say that, given the positions of the atoms at any one time, their position at any subsequent time is completely undetermined (other than the constraint that two atoms cannot occupy a single point). This is possible given our constraints, for the atoms in one admissible configuration could travel continuously to any other admissible configuration. This world is in a sense highly indeterministic. If we let the event E be the configuration of atoms at any given time t , then at all times prior to t , E was undetermined. Thus, in the (U1) sense, the configuration of the atoms at any instant is always “undetermined up to the moment it occurs”. I will not claim that there could be free and responsible agency in such a universe, but if not it is not because the universe is too deterministic.

Note, however, that on the (U2) sense of an event’s being undetermined up to the moment it occurs, the configuration of the atoms at any moment is never “undetermined up to the moment it occurs”, for positions of the atoms at any moment is always the (unique) limit of their positions at the times leading up to that moment.¹⁰ Thus if we understand Kane to say that the libertarian holds that free and responsible choices must be undetermined—in the (U2) sense—up to the moment they occur, then Kane would claim that this wildly Epicurean world is too deterministic for libertarian free choice. But surely the (U2) sense of indetermination goes far beyond the notion of indetermination required by the definition of the libertarian or incompatibilist position.

So Kane’s challenge to the controller cannot be met if it is understood in terms of the (U2) sense of indetermination, but taken in that sense it demands too much of the controller. So now let us consider Kane’s challenge formulated in terms of the (U1) sense of indetermination. The challenge now seems reasonable—if we are to be presented with a Frankfurt example which does not beg the question against the libertarian position then it should be presented in such a way that it meets this version of Kane’s challenge. Now we face the question of whether Kane’s argument successfully proves that his challenge cannot be met. To simplify our considerations it will help to note that if Kane’s reasoning is sound it will apply quite broadly to cases in which one wishes to both guarantee that a given event occurs at a given moment *and* allow it to occur through indeterministic processes. The event need not involve the activity of an agent. Taking any such event as the target, Kane’s reasoning (if it were sound) could be used to show that it is impossible for a controller to meet the following challenge: set the parameters in such a way that their non-violation before time t guarantees the occurrence of a target event at t and yet allows the target event to take place at t without the intervention of the controller and in a way that is undetermined up to the moment it occurs by any processes that are independent of the controller. To refute Kane’s reasoning it will be enough to give an example in which this challenge is met.

Here is such an example. Suppose we have a wildly Epicurean universe containing just one atom, A . Outside this universe is a controller who at any time can step in and control the movement of A . But unless the controller intervenes the movement of A is

¹⁰ This follows from the definition of continuity in the preceding note. It will be enough to show that for any arbitrary atom A and time t , if A is at position P at t , then given the positions of A during the time leading up to t , A could not have been at any other position P' at t . Let ε be one-half the distance between P' and P . By the definition of continuity there is a $\delta > 0$ such that, between time $(t-\delta)$ and t , the distance from A to $P < \varepsilon$, and thus between time $(t-\delta)$ and t the distance from A to $P' > \varepsilon$. By the continuity of A ’s motion it follows that A could not have been at P' at t given its positions prior to t .

random, though continuous, as set out earlier. The controller wants target event E to occur. E consists of A 's occupying spatial position P at time t . If Kane's reasoning is correct, then the controller cannot set parameters for the moments leading up to t so that both:

E can take place without a violation of parameters.

If no violation of parameters occurs then E must take place.

But it is not hard to set such parameters. Here is one way to do it:

If it is less than one n^{th} of a second before t , then A must be less than one n^{th} of a meter from P .

Thus when it is less than a one tenth of a second before t , A must be within one tenth of a meter of P . When it is less than one hundredth of a second before t , A must be within a hundredth of a meter of P . And so on. Since the motion of A is continuous, its position at t will be the limit of its positions as the time approaches t , and this limiting position is point P . Thus the non-violation of parameters does guarantee that the target event takes place. If parameters are violated at some time prior to t , then there will be time left for the controller to take charge and bring it about that the target event occurs. So for this special case the controller's dilemma is solved. Since Kane's argument, when read in terms of the (U1) sense of "undetermined up to the moment it occurs" implies that the controller's dilemma cannot be solved even in this special case, Kane's argument fails on this reading.

Widerker's objection

Next we turn briefly to David Widerker's objection.¹¹ Widerker's argument is similar to Kane's in that he holds that Frankfurt examples cannot be successfully set up without violating the requirement that the target event must be allowed to take place in a way that is not predetermined. The way in which Widerker sets up his Frankfurt examples differs from the way Kane does and because of this the objection that I raised against Kane's argument does not directly apply to Widerker's.

In criticizing Frankfurt's attack on PAP, Widerker focuses on an example in which the target event is Jones's "deciding at t_2 to kill Smith". The triggering event is to take place at t_1 : If Jones does not blush at t_1 , then the Frankfurt controller will interfere, but if Jones blushes at t_1 then the controller does nothing. In effect the only point at which parameters can be violated is at t_1 . As the example develops Jones blushes at t_1 and decides on his own at t_2 to kill Smith. The Frankfurt device is never activated.

¹¹ Widerker (1995). Our focus will be on Widerker's discussion of deciding, which he counts among the "basic *loci* of moral responsibility" (247). We will not be concerned with his account of complex actions. The argument considered here is not the only argument against Frankfurt examples that Widerker developed, but it is the argument that gets lumped together with Kane's argument to form the Kane/Widerker objection.

Widerker's criticism of the example takes the form of a dilemma: Either (1) Jones's blushing at t_1 indicates that causally sufficient conditions are present for the occurrence of the target event or (2) it does not. If (1) holds then it must be the case that at t_1 the target event is already determined to take place independently of the operations of the Frankfurt mechanism (and so the libertarian will not accept the claim that Jones is responsible for the decision). If (2) holds then it is not clear that Jones's decision is unavoidable. Either way we fail to get a non-question-begging Frankfurt example.

Notice that the sort of predetermination that must be in place at t_1 if the target event is to be guaranteed is not the problematic form of predetermination that was needed in order for Kane's argument to work. So Widerker avoids the objection that he relies on a form of indeterminism that goes beyond the requirements of incompatibilism. But this avoidance comes at a price, for Widerker's argument only applies to a proper subclass of prior-sign Frankfurt examples—namely, those in which there is a fixed cutoff point prior to the moment the triggering event is to occur by which the mechanism must be triggered. His argument does not apply to the more general case in which the triggering event could happen at *any moment* prior to the time the target event is to occur.

A variation on Widerker's example avoids this restriction. Recall that a *positive triggering event* is an event whose occurrence would activate the Frankfurt device, and a *negative triggering event* is an event whose occurrence signals that the device will not have to be activated because the target event is now guaranteed to take place. (In Widerker's example the agent's blushing at t_1 is a negative triggering event.) Frankfurt examples that require negative triggering events in all cases where an agent is allowed to decide on her own are subject to Widerker's criticism, for the occurrence of a negative triggering event requires that the target event is already (at the time the negative triggering event takes place) determined to occur, and thus the target event is not in the (U1) sense 'undetermined up to the moment it occurs'. However, Widerker's argument does not rule out Frankfurt examples in which the agent can decide on her own without the occurrence of a negative triggering event. That is, Widerker's argument does not rule out as a general case Frankfurt examples in which a positive triggering event will trigger the Frankfurt mechanism to bring about the target event, but the lack of a positive triggering event will be enough to guarantee the occurrence of the target event.¹² Thus this variation on Widerker's objection still only applies to a restricted subclass of prior-sign Frankfurt examples.^{13, 14}

¹² The most well-known attempt to formulate a Frankfurt example of this sort is Pereboom's (2009) "Tax Evasion" example.

¹³ I claim that Widerker's version of the dilemma defense does not succeed in ruling out as a general case prior-sign examples that only rely on positive triggers. Immediately after presenting the argument we looked at above Widerker does argue against a special case in which Frankfurt examples appear to contain only positive triggers, though he does so using considerations that go beyond those in the dilemma defense. See (Widerker 1995: 252–53) where he argues against certain Frankfurt examples that use inclinations to decide as positive triggers. If Widerker is to give us a general strategy for dealing with prior-sign Frankfurt examples then we need a general solution to the problem I have raised (viz. can we rule out prior-sign examples that do not use negative triggers?). Widerker's handling of the particular case mentioned in (Widerker 1995: 252–3) does not give us a general solution.

¹⁴ I am thankful for comments on earlier versions of this paper by Robert Kane, Keith Wyma, Rebecca Bensen Cain, Brendan Murday, and various anonymous readers.

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