

## Compatibilism and the Basic Argument

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### 1 Introduction

In his book *Freedom Evolves* (2003) and article (Taylor & Dennett, 2001), Dennett constructs a compatibilist theory of free will and responsibility. It is based on a conception of possibility that is broader than the libertarian conception, allowing it to be compatible with determinism. Dennett does not give much attention to the incompatibilist's Basic Argument (also known as the Consequence Argument). This is to the dissatisfaction of Fischer (2003, 2005), a semicompatibilist who believes that while we have the kind of possibilities that are required for moral responsibility, the Basic Argument shows that the libertarian free will is still worth having—and incompatible with determinism.

Dennett (2005) disagrees, and what follows is a quarrel about the burden of proof. Dennett maintains that there are too many versions of the Basic Argument and he cannot address them all. Fischer replies by giving two versions of the Basic Argument, to which Dennett does reply. I argue, however, that Dennett does not give convincing rebuttals. I will have a closer look at the arguments and suggest alternative ways in which compatibilists such as Dennett can make their defense stronger. Important shall be my conception of the 'epistemic world', which I claim is the relevant conception of the world when investigating the issue of free will.

In section 2, I summarize the disagreement between Dennett and Fischer. I then, in section 3, propose ways to address both versions of the Basic Argument given by Fischer, which Dennett could use to make his position stronger.

### 2 The debate

Taylor & Dennett (2001) defend a traditional version of compatibilism. They develop notions of 'possibility' and 'causality' that are compatible with determinism. Incompatibilism, the authors contend, subsists on a confused notion of these concepts. When determinism is true, the compatibilist notion of possibility allows one to say that 'I could have done otherwise', whereas this statement is necessarily false when using the incompatibilist conception of possibility (which requires that given the exact same past, something else could have happened). The compatibilist conception of possibility, we are led to believe, is what underlies what is actually meant by statements about possibility, and the incompatibilist notion has no merit in using.

#### 2.1 Possible Worlds

To define their concepts of possibility and power, the authors make use of the framework of possible worlds. A possible world is a hypothetical universe. For the purpose of this essay, it is sufficient to look at a possible world as if it is a function of spacetime  $w: \mathbb{R}^4 \rightarrow \{0,1\}$ , which assign to each quadruple  $(x,y,z,t) \in \mathbb{R}^4$  the value 1 if and only if at time  $t$  matter occupies location  $(x,y,z)$ .

The statement 'I could have cycled to the supermarket (instead of walking)' can be described as follows: there exists a possible world, which up to the point of going to the supermarket is sufficiently similar to our world, in which I cycled to the supermarket.

There is some vagueness created by the use of the phrase 'sufficiently similar'. Taylor and Dennett choose to leave this as it is, because the idea is clear enough. The precise interpretation of 'sufficiently similar' will depend

on what the intended meaning of the phrase ‘I could have cycled to the supermarket’ is. If the person saying it does not have a bike, he clearly imagines the existence of a possible world that is less similar than if he does have a bike, and him deciding to cycle would have only required to think about the matter (“Will I cycle or will I walk?”) a second longer. However, when addressing the Basic Argument (in particular, Fischer’s version of it), we will need a more specific definition, which I give in section 3.2.

The Possible Worlds Characterization of Possibility allows one to say that ‘I could have done otherwise’ while determinism is true. Taylor and Dennett show that this concept of possibility allows us to explain and understand the world, whereas the incompatibilist narrow conception is useless for this purpose. They raise the question why free will requires the narrow conception, and why we should be interested in such a concept at all. The burden of proof, they claim, rests with the incompatibilists, who have to show why ‘real’ possibility demands the narrow conception (Taylor & Dennett, 2001, pp. 231-235).

### 2.2 Van Inwagen’s Basic Argument

In an appendix of the same paper, Taylor & Dennett attack a version of the Basic Argument as given by Van Inwagen (1975). Van Inwagen’s Basic Argument is a *reductio ad absurdum* starting from the premise that an agent has the ‘power to cause’ at least one event, concluding that the agent has the power to cause no event whatsoever if the world is deterministic. Taylor and Dennett (2001, p. 236) formulate Van Inwagen’s argument as follows.

First, some definitions. For any event  $a$ , let  $\sigma(a)$  be the proposition asserting that  $a$  occurs. Let  $\sigma_0$  be a comprehensive description of the universe’s state at some time in the remote past, and let  $\lambda$  be a statement of the laws of nature. Let  $A$  be a human agent.

Without defining precisely what it means to have the ‘power to cause’ an event, premise 1 and 2 are assumed to hold. We start with four premises:

1. For events  $a$  and  $b$ , if  $A$  has the power to cause  $a$  and  $\sigma(a) \Rightarrow \sigma(b)$  obtains in every possible world, then  $A$  has the power to cause  $b$ .
2. For any event  $a$ , if  $A$  has the power to cause  $a$ , then  $A$  has the power to cause the event that  $a$  does not occur (in which case  $\sigma(a)$  is false).
3. There exists at least one actually occurring event  $x$  which  $A$  has the power the cause.
4. Determinism is true. Hence, in every possible world,  $\lambda \wedge \sigma_0 \Rightarrow \sigma(x)$  is true. Equivalently,  $\neg\sigma(x) \Rightarrow \neg(\lambda \wedge \sigma_0)$ .

From this the following conclusions follows:

5.  $A$  has the power to cause an event whose occurrence implies  $\neg\sigma(x)$ , and therefore implies the falsity of either  $\lambda$  or  $\sigma_0$ , which is absurd.
6. Conclusion 5 must be rejected, and premise 1 and 2 are plausibly true. Hence, either determinism is false or  $A$  does not have the power to cause any of his actions.

However, Taylor and Dennett think that, when using a proper definition of ‘power to cause’ premise 1 is false. They maintain that causation should be understood as necessity. That is,  $a$  causes  $b$  means that  $a$  is a necessary requirement for  $b$  to happen ( $b \Rightarrow a$  holds in all possible worlds close to actuality). ‘Power to cause’, then, should be rendered as follows in their possible world terminology:

$A$  has the **power to cause**  $a$  if and only if for some event  $\bar{a}$  describing an action of  $A$  and a world  $w$  that is sufficiently similar to the actual world,  $\sigma(\bar{a}) \wedge \sigma(a)$  holds in  $w$  and  $\sigma(a) \Rightarrow \sigma(\bar{a})$  in every world similar to  $w$ .

When such a definition is used, premise 1 is obviously false.  $A$  having the power to cause  $a$  means that  $\sigma(\bar{a}) \Rightarrow \sigma(a)$  in some set of worlds similar to  $w$ . It does not follow from  $\sigma(a) \Rightarrow \sigma(\bar{a})$  and  $\sigma(a) \Rightarrow \sigma(b)$  that  $\sigma(b) \Rightarrow \sigma(\bar{a})$  — as we learn “in Logic 101,” Taylor and Dennett add.

### 2.3 Response by Fischer

In a 2005 issue of *Metaphilosophy*, Dennett and Fischer debate Taylor and Dennett's analysis of the Basic Argument. Previously, in a review of Dennett's book *Freedom Evolves*, Fischer argued that the Basic Argument gives us strong reason to deny the existence of free will in a certain sense if determinism is true (Fischer, 2003), complaining that Dennett has "declined to directly confront" this argument (Fischer, 2005, p. 427). In the debate in *Metaphilosophy*, Dennett challenges Fischer to look at his discussion of Van Inwagen's version of it, and that is what Fischer does.

Fischer starts by saying that it would be surprising if many philosophers have been making logical errors — "the sort one would learn about in Logic 101" — without anyone noticing. Fischer agrees that Taylor and Dennett's reading of Van Inwagen's argument contains a logical error, but contends that when causality is interpreted in terms of sufficiency instead of necessity, the argument becomes unproblematic. Fischer agrees that this weaker concept of causality does not capture some "ordinary, common-sense idea," but contends that the weaker concept of causality makes the argument valid (and presumably, Fischer thinks it is still convincing), and that therefore, Taylor and Dennett's worries do not affect the argument.

Fischer goes on to say that there are other versions of the Basic Argument that also do not face the problem suggested by Taylor and Dennett. He presents his own version, which he suggests is immune to Taylor and Dennett's criticism because it does not contain premises such as in line 1, and because it does not use phrases such as 'S can make it the case that some state of affairs obtains' (Fischer, 2005, p. 432). Fischer's version employs instead the *Principle of the Fixity of the Past and Laws*, which states:

An agent has it within his power to do  $a$  only if his doing  $a$  can be an extension of the *actual* past, holding the natural laws fixed. (Fischer, 2005, p. 432, my italics)

If this principle is true, the conclusion that free will does not exist if the world is deterministic follows readily from the following argument. Again, let  $\sigma_0$  be some comprehensive description of the universe's state at some

time in the remote past, and let  $\lambda$  be a statement of the laws of nature. Let  $x$  be some action of  $A$ .

1. For an action  $a$ ,  $A$  has it within his power to do  $a$  only if  $\sigma_0 \wedge \lambda \wedge \sigma(a)$  is true in some possible world  $w$  (Principle of the Fixity of the Past and Laws).
2. Determinism is true. Hence,  $\lambda \wedge \sigma_0 \Rightarrow \sigma(x)$  is true in every possible world. Equivalently,  $\neg\sigma(x) \Rightarrow \neg(\lambda \wedge \sigma_0)$ .
3.  $A$  did not have it within his power to not do  $x$  (as that would make the past or laws of nature false).

The Fixity Principle captures our intuition, according to Fischer, that our freedom is to "add to the given past, holding the natural laws fixed":

When we think of ourselves as being free to pursue a particular path into the future, we explicitly or implicitly think of that path as an extension of the actual past (holding the laws of nature fixed). We typically do not think of ourselves as having the power so to act that the past would have been different from the way it actually was, or so to act that the laws of nature would have been different. So, the picture is this: the various accessible pathways into the future branch off a fixed past (and contain the actual natural laws), and the reasons relevant to our practical reasoning are reasons that obtain only along the accessible pathways. A benefit that exists along some path is pertinent to my practical reasoning only if I can "get there from here." (Fischer, 2003, p. 635)

Denying this picture, according to Fischer, would be to substitute it for a "radically unintuitive picture," because it means we need to view the different pathways into the future as having different pasts. Since this is not how we actually view the world when we think of free will, the Basic Argument convinces us that free will as we commonly perceive cannot exist when determinism is true.

### 2.4 Dennett's response

Dennett is unimpressed. In his response to Fischer's defense of Van Inwagen's argument, he says:

[Fischer] agrees that given our notion of causation, the Basic Argument falls apart, but he proposes his own 'theoretical' notion of causation, acknowledges that it does not have even the imprimatur of ordinary language but does have the virtue of saving the Basic Argument for another day, or maybe another millennium. We wouldn't want to say farewell to something as much fun as the Basic Argument in an appendix would we? Well, yes. (Dennett, 2005, p. 453)

Dennett (2005) argues that it is an impossible task to dispose of each and every version of the Basic Argument. Therefore, he chose to dispose of only the version that employs the concept of causality that he argues is correct. This is enough, he claims, until someone shows that he has left out something important. The burden of proof, says Dennett, rests with the incompatibilists.

He does reply to Fischer's own version of the Basic Argument: he rejects the Fixity Principle, which "insists on taking the 'actual past' as 'given', down to the last electron, but it simply neglects the fact that this is an unmotivated insistence" (Dennett, 2005, p. 454).

Both authors agree that there is a definable concept of libertarian free will, based on the kind of power that the Fixity Principle talks about, which is incompatible with free will. However, Fischer takes "seriously the libertarian's wish to have such freedom" (Fischer, 2005, p. 634). The difference with Dennett is that he does not care about the existence of such a libertarian free will at all. It seems that Dennett views it as similar to a free will arising from a 'narrow conception' of possibility, but it is unclear why exactly Dennett is so opposed to the Fixity Principle.

One may conclude from this that no side is right or wrong: both believe in their own theory of free will, both of which are internally consistent; proving one of them wrong may not be possible. Nevertheless, this is what Fischer seems to be trying: his version of the Basic Argument, he claims, proves Dennett wrong, *even if* he abides with his compatibilist conception of free will: the intuition underlying the argument is universal. The concept of free will seems to capture something we find *important*, and it is this value that is at stake. According to Fischer, it can only be found in libertarian free will. Hence, Dennett's strategy to place

the burden of proof on the incompatibilist's side does not work: Fischer's argument already tries to disprove Dennett. To defend his position, Dennett needs to address it directly. This is what I will try to do next.

### 3 A defense of compatibilism

#### 3.1 Van Inwagen's Basic Argument

Fischer contends that Van Inwagen's argument should be seen as using a sufficiency definition of 'power to cause', rather than a necessity definition. To see if this argument poses a threat to Dennett's compatibilist theory, I will incorporate Fischer's suggestion in Dennett's 'possible world' version of 'power to cause':

**Definition 1.**  $A$  has the power to cause  $a$  if and only if for some action  $b$  of  $A$  and a world  $w$  that is sufficiently similar to the actual world,  $\sigma(b)$  holds in  $w$  and  $\sigma(b) \Rightarrow \sigma(a)$  holds in every world similar to  $w$ .

When this definition of power to cause (with causality as sufficiency) is used, Van Inwagen's argument is indeed valid. Fischer agrees, however, that this notion of causality has some problems. For example, using this notion, and assuming that the sun is shining at 12:00 today, any action that I perform 'causes' the sun to shine at 12:00 today (except, perhaps, the action of using a cloud generator to stop the sun from shining). Despite this unintuitive concept of causality, Fischer maintains that the conclusion of the argument is still valid.

To see whether this is true, we need to observe exactly what the conclusion of the argument (line 5 in section 2.2) means when Fischer's definition of 'power to cause' is used. Substituting, we get

5. For some action  $b$  of  $A$  and a world  $w$  close to actuality,  $\sigma(b)$  holds in  $w$  and  $\sigma(b)$  implies the falsity of either  $\lambda$  or  $\sigma_0$ , which is absurd.

Now the question is, *is it really absurd*—and I see no reason why it is. Assuming that  $\lambda$  holds in every possible world, it should be concluded that there is some set of possible worlds in which  $\sigma(b) \Rightarrow \neg\sigma_0$  holds, with at least one world ( $w$ ) in which  $\sigma(b) \wedge \neg\sigma_0$  holds. It is clear that this does not

mean that  $A$  has the power to change the past: we are talking about possible worlds that do not actually exist. In the actual world, we have  $\sigma_0 \wedge \sigma(b)$  by assumption.

So it seems that, also with a sufficiency view of causality, Van Inwagen's argument will not be a problem for a compatibilist free will that is based on a Possible Worlds Characterization of Possibility. There may still be versions of the argument that have force (e.g. versions that do not use possible worlds), but Dennett could sidestep them by saying that they use the wrong conception of possibility.

### 3.2 Redefining the Fixity Principle

#### 3.2.1 Introduction

Dennett chooses to ignore Fischer's version of the Basic Argument because he views it as "an instance of the conflation we were exposing," (Dennett, 2005, p. 454) by which he means conflation of causation and possibility. This is not very convincing, as he does not show in what way Fischer conflates the two. As long as Dennett does not show in what way Fischer's argument can be interpreted as an argument that conflates causality and possibility, *and* that faces similar problems as the Van Inwagen argument, the Fixity Principle remains standing.

I propose to address the Fixity Principle in a different way. It seems that the principle *does* capture how we think of 'having the ability to choose among different possibilities.' The mere fact that we universally think about our will in this way (even Dennett, I suspect) seems to be a reason that it is important to us whether the Fixity Principle is valid or not.

However, we can understand the Fixity Principle in a different way. Fischer understands the *past* in the Fixity Principle to refer to the (one and only) metaphysical reality. But there is no reason to suppose that this is what we mean when we refer to the past. In fact, I believe that we do not: when we talk about reality, we talk about models of reality—our limited knowledge of reality, which corresponds in some way to the metaphysical reality but is not the same thing. If the past in the Fixity Principle refers to our *understanding of* reality, the Fixity Principle is true and we have free will, even if metaphysical determinism is true. To show why this is so, I will give a formalization of 'epistemic worlds', which helps us understand

how our knowledge of reality relates to the actual reality without conflicting with it. I will then discuss a different understanding of the Fixity Principle, referring to the epistemic past, that I claim captures the same intuitions as Fischer's Fixity Principle, but in a better way.

#### 3.3.2 The Epistemic Past

When we think about the past or the world, we do not have a full description of the world available to us. In possible world terminology, if  $W$  is the actual world, we do not know the value of  $W(x,y,z,t)$  for all  $x,y,z$  and  $t$ . In fact, we do not know any value that  $W$  takes for certain. The question arises: what kind of thing is it that we *do* know about the world? I suggest that our knowledge of the world consists of a set of propositions describing the world as it is at particular points in time. Such as the proposition: 'On January 1 at 12:00, the sun is shining.'

**Definition 2.** The **set of knowledge about the world  $K_t$  of  $A$**  is the set of propositions about the world that an agent  $A$  would believe to be true at time  $t$ .

For simplicity, I will assume that  $K_t$  is the same for all people and that  $K_t$  is closed under logical deduction. In addition, I will assume that there are no errors: all  $p \in K_t$  are true in the actual world, and the belief in them is justifiable.<sup>1</sup> Since beliefs do not necessarily come in the form of propositions, I use the phrase 'would belief' and assume that there is a one-to-one correspondence between  $K_t$  and  $A$ 's (justifiably true) beliefs.

Let  $\Omega$  be the set of all possible worlds in which the laws of nature hold. Given determinism, there will be some world  $W \in \Omega$  that is the actual world. But importantly, we *do not and will never know* the exact description of this actual world. However, our knowledge about the world  $K_t$  relates in some way to the actual world  $W$ , and I will try to formulate this relation as follows. Since our knowledge about the world is never complete, there will be multiple possible worlds  $w \in \Omega$  in which all propositions  $p \in K_t$  hold.

**Definition 3.** Call the set of possible worlds in which all  $p \in K_t$  hold the **epistemic world  $E_{K_t}$** .

By the assumption that all  $p \in K_i$  are true, we have  $W \in Ek_i$ .

For example, suppose that  $q \in K_i$  is a proposition stating that yesterday it was sunny. Suppose further that there is no  $p \in K_i$  describing the weather as it was the day before yesterday (we forgot what weather was the day before yesterday). Then  $Ek_i$  contains only possible worlds in which yesterday it was sunny, but possible worlds in which it was sunny as well as rainy the day before yesterday.

I now turn to a situation in which someone's knowledge about the world is altered because he makes a choice. Let  $a$  be an action that may or may not be performed by an agent  $A$ . Suppose that slightly after some point in time  $t$  an agent  $A$  chooses to do  $a$ . This choice will add the proposition  $\sigma(a)$  to the set of propositions about the world  $K_i$ . In addition, the inclusion of  $\sigma(a)$  in  $K_i$  may imply that one has to add more propositions to one's knowledge set. For example, suppose that  $A$ 's choosing to do  $a$  (say, taking a job) could have only happened if some statement  $q$  (say, that  $A$  is raised by his parents in a certain way) about the past is true. That is,  $\sigma(a) \Rightarrow q$ , and  $A$  knows that  $\sigma(a) \Rightarrow q$ , but before choosing to do  $a$ ,  $A$  does not know whether  $q$  is true. Once  $A$  has chosen to do  $a$  it is implied that  $q$  is true, and his epistemic world is changed to include  $q$ .

**Definition 4.** For an action  $a$ , the **deductive closure of  $K_i$  and  $a$** , denoted  $K_i(a)$ , contains  $K_i$ ,  $\sigma(a)$  and the set of all inferences such as  $q$  in the example I gave.

Using these definitions we can formulate a condition for free will that is similar to Fischer's Fixity Principle, which I call the Epistemic Fixity Principle:

An agent has it within his power to do  $a$  after time  $t$  only if  $Ek_i(a) \neq \emptyset$ , and we have  $Ek_i(a) \subset Ek_i$  (Epistemic Fixity Principle).

The first condition,  $Ek_i(a) \neq \emptyset$ , is equivalent to there being at least one possible world  $w \in Ek_i$  in which  $\sigma(a)$  is true; that is, it is possible to do  $a$  given  $A$ 's knowledge of the world. The second condition,  $Ek_i(a) \subset Ek_i$ , states that all possible worlds that after having done  $a$  are compatible with

our knowledge of the world, should have also been compatible with our knowledge of the world before we made the decision to do  $a$ . In a sense, then, the post-decision epistemic world should be a 'continuation' of the pre-decision epistemic world; it is an epistemic version of the fixity of the past. This is intuitively plausible: when we make a decision, we want our perception of the world after making a decision to be consistent with the world before we made the decision.

It follows trivially that, given our assumptions, all choices we make satisfy the Epistemic Fixity Principle. For suppose that  $A$  does  $a$  slightly after time  $t$ . From the truth of all statements in  $K_i$  it follows that there is at least one possible world  $w \in Ek_i$  in which  $\sigma(a)$  is true; hence,  $Ek_i(a) \neq \emptyset$ . For the second condition, let  $w \in Ek_i(a)$ . Then (at least) all propositions  $p \in K_i$  are true in  $w$ ; hence, we have  $w \in Ek_i$ .

It is also clear that Fischer's Basic Argument does not work when the Fixity Principle is replaced by the Epistemic Fixity Principle. For suppose that  $A$  is choosing between  $a$  and not doing  $a$  and ends up choosing to do  $a$  after time  $t$ . If his epistemic world at time  $t$  contains possible worlds in which  $\sigma(a)$  is true as well as possible worlds in which  $\neg\sigma(a)$  is true, then the Epistemic Fixity Principle is satisfied for both choices, as shown above.

### 3.2.3 The intuition behind the Fixity Principles

Fischer's Fixity Principle and Basic Argument have force because our intuitions tell us that the Fixity Principle is plausible. The conclusion that free will is incompatible with determinism follows logically after accepting the principle. However, intuitions are vague by necessity: they can be interpreted in different — mutually exclusive — ways. The Epistemic Fixity Principle captures *the same* intuitions as Fischer's Fixity Principle. To see this, let's have another look at Fischer's motivation for his Fixity Principle.

When we think of ourselves as being free to pursue a particular path into the future, we explicitly or implicitly think of that path as an extension of the actual past (holding the laws of nature fixed). We typically do not think of ourselves as having the power so to act that the past would have been different from the way it actually was, or so to act that the laws of nature would have been different. So, the picture is this: the



various accessible pathways into the future branch off a fixed past (and contain the actual natural laws), and the reasons relevant to our practical reasoning are reasons that obtain only along the accessible pathways. A benefit that exists along some path is pertinent to my practical reasoning only if I can “get there from here” (Fischer, 2003, p. 635).

Each of these sentences can be reinterpreted with reference to the epistemic past instead of the actual past. We do not think of ourselves having the power so to act that what we held true about the world before will be false after making a choice; the various accessible pathways into the future branch of a fixed epistemic past: when we make a choice, the set of propositions about the world increases and the set of compatible possible worlds narrows correspondingly — but the relevant worlds are retained (‘fixed’). The epistemic ‘pathway’ is a path of epistemic worlds that becomes smaller (containing less possible worlds) when choices are made and larger when information is forgotten.

The straightforward reply from the libertarian would be that our intuitions about free will refer to the *actual* world, not to our knowledge of the world. But I see no reason why they should. Consider discoveries in science, such as special relativity and quantum mechanics, that have ‘proven’ that the intuitive way we think about the world is incorrect — *if* the world we think about were supposed to *be* the actual world. However, it is clear these discoveries are not a problem for us. As long as our intuitive understanding of the world does not *conflict* with a scientific understanding of the actual world (that there is some meaningful correspondence), there are no problems, and it does not follow that we should abandon our intuitive understanding of the world; rather, we should acknowledge that the actual world and its intuitive representation are different, and that intuitions are about the latter. The same holds for determinism. As long as the actual world  $W$  is an element of every epistemic world  $E_{K_i}$ , there is a meaningful correspondence with the epistemic world and the actual world: there is no conflict.

The notion of the actual world is relevant in a different way. In all of human history, the world has been what our senses told it to be. It did not take long to discover, however, that the phenomena that we observed behaved according to laws, and that knowledge of these laws is beneficial.

This, combined with the observation that the world seems to be the same for other humans (other humans perceive similar things, described by the same laws, with their senses), makes it beneficial to hypothesize the existence of an *actual* world consistent with these laws. This notion of the actual world is clearly useful, but why should its relevance extend to free will? It is rather our *model* of the actual world that seems to me to be relevant to free will. In fact, what *is* the actual world is never of concern, by definition: we cannot get any closer to reality than what is epistemically possible.

When we look at it from the epistemic perspective, it seems that our intuitions about free will make a lot more sense. Making a choice requires that we do not *know* what we will choose. If we would know what we will choose, there would be no reason to deliberate; even more, it could hardly be called a choice. Hence, it is an obvious requirement that multiple epistemic options are open to us—and this could be the reason that we have the intuitions that underlie incompatibilist ideas.

Another objection could be along the lines of the following. If we find out that the actual world is deterministic, our knowledge of the world  $K_i$  will contain the proposition that the world is deterministic. This seems to conflict with the epistemic world  $E_{K_i}$  not being deterministic and containing multiple possible worlds. But no such conflict exists. In the suggested scenario,  $E_{K_i}$  will only contain possible worlds that are deterministic, so it is likely that it contains less possible worlds than before we found out that the actual world is deterministic. However, as long as we do not have full knowledge about the world, multiple (deterministic) possible worlds will be elements of the epistemic world. Hence, the epistemic world is not deterministic.

### Conclusion

Dennett’s strategy of denying the burden of proof did not seem to work, as his position was attacked directly by arguments from Fischer, so I tried to make his position stronger by addressing these arguments.

The concept of the Epistemic World can be seen as an extension of Dennett’s compatibilist concept of free will. Dennett explains his conception of possibility using the Possible Worlds Characterization of Possibility: something is *possible* if there exists a possible world describing it within

some set of possible worlds  $X$ . But this characterization of possibility leaves out from which set we are choosing (what counts as ' $X$ '). By defining this in epistemic terms, we can build a more powerful fortification against incompatibilist arguments.

I have argued that the intuitions underlying libertarian free will, most notably the Fixity Principle, should concern us—that is, we should want them to be satisfied. However, these intuitions should be interpreted differently than libertarians do. They do not concern the 'actual' world but the world that we actually deal with: the epistemic world. If our conception of free will deals with the epistemic world, I have shown, Fischer's version of the Basic Argument does not work. Hence, free will can coexist with determinism of the actual world.

This is not a knockout argument against incompatibilists. They could maintain that our intuitions are in fact about the actual world, and it will be hard, if not impossible, to give a decisive argument for either position. Rather, my arguments put the compatibilist position back on par with the incompatibilist position. The epistemic free will gives compatibilists a defense of free will that is resistant against incompatibilist concerns.

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## Notes

1. These assumptions will need to be dropped when we want to analyze what it means for free will when different people have different beliefs, or when an agent has false beliefs. In that case, one might want to drop the term 'knowledge' in favor of 'beliefs', but presently, the use of the term 'knowledge' creates no misunderstanding.

## References

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