

The Phenomenology and Metaphysics of the Open Future

Abstract. Intuitively, the future is open and the past fixed: there is something we can do about the future but not the past. Some metaphysicians believe that a proper metaphysics of time must vindicate this intuition. Whereas philosophers have focused on the future and the past, the status of the *present* remains relatively unexplored. Drawing on resources from action theory, I argue that there is something we can do about the present just like there is something we can do about the future. Hence, a proper metaphysics of the open future should allow for an open present as well. I argue that none of the major metaphysics of the open future currently available can accommodate an open present adequately. Finally, I'll show that, surprisingly, the shrinking block metaphysics can. (Word Count: 13,809)

1. The Ordinary Conception of Time

The A-theorists take our ordinary conception of time very seriously. A basic tenet of their view is that the tenses are perspective-independent, objective features of reality.

That's not all there is to our ordinary conception of time. There is a further layer to that conception, namely, the idea that events aren't statically grouped into past, present, and future. Instead, events *pass* from being future, to being present, to being past. There is a *transient* aspect — to borrow Broad's (1938) phrase — to tensed reality. A key part of the A-theorists' project is to defend the consistency of the idea of objective and dynamic tenses (e.g., McTaggart 1908, Smith 2011).

On top of all that, our ordinary conception has a third aspect. The passing tenses carry peculiar implications *about us*: “[W]e take ourselves to have power over the future, yet lack power over the past” (Torre 2011: 361). There is something we can do about the future, but *ordinarily* (i.e., setting

aside fanciful backward causation technology like time travel), nothing can be done about the past. (The qualification about backward causation technology is understood hereafter.)

Suppose I say I'm going to do my laundry yesterday. You'd give me an incredulous stare. Why? A natural response is: "*because* you can't do anything about the past". The fact that doing my laundry yesterday is in the past *explains* why I can't do so:

Premise 1. There is nothing one can do about the past.

Premise 2. Doing one's laundry yesterday now is to do something about the past.

Conclusion. One cannot do one's laundry yesterday now.

The conclusion concerning what I cannot do about yesterday is *explained by*, in the sense that it's *inferred from*, the premises about tenses. Naturally, one can seek *further* explanation. What is it about the tenses that let us infer what can and cannot be done? Premise 1 is intuitive. But what makes it true? However we answer these further questions, at least this is true: intuitively, there is an asymmetry in agency that can be *somehow explained* by the tenses. Let's call *whatever it is* that makes future events special such that something can be done about the future the **openness** of the future and the lack of this something special **fixity**.¹

¹ I *first* explain why there is something we can do about the future by openness (whatever that is) and *then* explain why there is nothing we can do about the past by the lack of openness as fixity. One might wonder: why don't we first explain why there is nothing we can do about the past by fixity (whatever that is) and then explain why there is something we can do about the future by the lack of fixity? Here's why. There is light and there is darkness. We first explain the light with the light source and then explain darkness with the lack of said light source. Generally, there is presence and there is absence. We explain the positive phenomena and then explain the negative phenomena in terms of the lack of what explains the positive phenomena. That's why we should first explain why *there is something* we can do

This essay focuses on the third aspect. My goal is two-fold. I'll defend a novel desideratum that our metaphysics must meet *if* it is to fully capture the intuitive openness of the future. I'll then argue that the shrinking block metaphysics is, surprisingly, our best option for capturing the open future when the new desideratum is taken into account.

This is a relatively modest goal. I've no intention to argue that we should accept whatever theory fully captures the openness of the future. Firstly, one might not think that preserving our ordinary conception of time is philosophically valuable. (For example, Smart (1981) denies that we should take the intuitive passage seriously.) I believe that going against our ordinary conception is at least a *prima facie* cost. But I don't want to turn this into a methodology paper. All I want to say is that, *if* preserving our ordinary conception of time is significant, and *if* the open future is a part of this conception, then it's meaningful to see what kind of theory can fully accommodate the open future.

Secondly, even if one accepts that preserving the ordinary conception is valuable, the open future is but one among many components in our ordinary conception of time that our metaphysics is supposed to preserve as much as possible. Like any theoretical pursuit, a single piece of datum rarely proves or breaks a theory conclusively. Perhaps, *all things considered*, we cannot do justice to every bit of our ordinary conception of time. Perhaps we have to explain certain parts of it away as noise. It might even be that, *all things considered*, we should give up our ordinary conception *completely*. My goal isn't about the "all things considered". Before we get ahead of ourselves worrying about what we should believe when *all* things are considered, we should first attain a better

about the future and only then explain why *there is nothing* we can do about the past in terms of the lack of what explains our future-directed ability.

understanding of what it means *if we are to* preserve our ordinary conception fully, which requires a better understanding of what it means *if we are to* fully preserve *a component* of it: the open future.

Let's narrow down our attention a bit more. In search for a metaphysics for the open future, I limit my attention to accounts that commit themselves to the objectively real tenses. There are philosophers who offer B-theory-friendly accounts of the open future (e.g., Lewis 1979 and Mellor 1998 appeal to the direction of causation; Kutach 2011 appeals to the usefulness of forward influences). But I'll set them aside. Here's why.

According to the ordinary conception of time I seek to preserve, that nothing can be done about past events is an *objective* fact about those events, not a matter of perspective. Consider a statement that *is* perspectival: "Rob is on the left of Bob". It isn't objectively the case that Rob is on the left of Bob. Rob can be on the left of Bob, or not, without reality changing one bit, depending solely on a switch in perspective. By contrast, consider "nothing can be done about Napoleon's defeat". This statement perhaps had been false. But it's true. Intuitively, the change in truth-value is due to an objective change in reality, not just a shift in perspective. Thus, ordinarily, when we say something can be done about the future but not the past, it's meant to report an objective fact of reality.

Certainly, B-theorists reject that. Their reality is a static block. For them, all statements about changes are made true by perspectival facts: things being one way relative to one perspective in the block and being another way relative to another perspective in the block.² But B-theorists happily admit that their project is revisionary. As Oaklander (1991) puts it, they think that "tensed discourse could be *eliminated* or *translated* without loss of meaning into tenseless discourse" (26; my italic). They wouldn't deny that, intuitively, that nothing can be done about Napoleon's defeat is an objective fact

² See Oaklander (2004: Part 3 B).

so that it involves a genuine change for reality to turn from there being something to be done about Napoleon's defeat to there being nothing to be done. They simply think that there are theoretical reasons for deviating from such intuitions, that such intuitive discourse should be suppressed in philosophical context.

The openness of the future and the past's lack of openness are supposed to be the features of reality that explain this *objective asymmetry* in agency.³ If the tenses weren't objective, this agential asymmetry wouldn't be objective. Thus, accounts that remain *neutral* to whether reality is objectively tensed (e.g., accounts that appeal to the direction of causation) cannot *fully* preserve our ordinary conception of the open future. This certainly doesn't mean that B-theory-friendly accounts cannot satisfy our intuition about the open future *to a certain extent*. Perhaps that's the best we can do in the end. Perhaps, all things considered, we cannot preserve every bit of our ordinary conception of the open future. As I've emphasized, my goal is simply to understand what kind of metaphysics it would take *if we were to* fully preserve the intuitive openness of the future.

Here's our roadmap. **Section 2:** I begin by clarifying our intuitive conception of the open future by separating it from the issue of free will. **Sections 3-4:** Since the openness of the future is meant to explain a limit of agency, I draw on resources from action theory to flesh out what this restriction on agency amounts to. **Section 5:** By applying the results of sections 3-4, I argue that there is

³ I stipulate "openness" to denote whatever makes being in the future special *so that* there is something we can do about the future and stipulate "fixity" to denote the past's lack of this thing *so that* there is nothing we can do about the past. Some might be inclined to use "openness" and "fixity" to refer to the agential asymmetry *itself*, not something that *explains* it. The bottom line is that philosophers who work on this topic typically accept that the asymmetry calls for an explanation. It isn't enough to acknowledge *that* something can be done about the future but not the past; we also want to understand *how come* the tenses entail such an asymmetry, i.e. its *basis*. Whether we use "openness" to label the fact that there is a tense-based agential asymmetry or use it to label the basis behind this fact is a mere verbal issue.

something we can do about the *present* in just the same sense that there is something we can do about the *future*. I defend a new desideratum for a metaphysics of the open future: the present must be open in whatever way the future is. **Section 6-7:** I then show that the two major A-theoretic approaches to the open future fail to meet my desideratum. **Section 8-9:** Finally, I argue that the shrinking block metaphysics meets the desideratum and explains the asymmetry of agency in a surprisingly straightforward manner.

2. Open Future and Free Will

Our ordinary conception of the open future is muddled. Other than the idea that it's meant to *somehow explain* a limit on agency, nothing else seems clear. Due to such unclarity, one might be tempted to deny that there is a respectable conception of the open future to be preserved.

Such a quick dismissal would be a mistake. Our ordinary conception of time provides us with data as starting points for philosophical theorization in the same way empirical data are bases for scientific theorization. As it has long been noticed by philosophers of science, we don't directly theorize with raw data. Data are processed into data models where the data are cleaned up and standardized. Only then can the data present scientifically significant *phenomena* for us to theorize about.⁴ Analogously, philosophical data need to be cleaned up before they can be of any good for philosophization. The initial unclarity of our ordinary conceptions, just like the initial noises in our empirical data, isn't a reason for dismissing them as insignificant offhand. Instead, this means we should be methodical. The first half of this essay aims to clean up our phenomenological data and single out the truly relevant phenomenon of the open future before we start crafting theories.

⁴ See Suppes (1966) on data models, and Bogen & Woodward (1988) and Woodward (1989; 2010; 2011) on the data-phenomenon distinction.

The open future is brought to our attention most vividly through its asymmetric effect on agency. We shouldn't, however, let this blind us from the fact that the openness of the future is meant to be a feature of *reality itself*. It's meant to be a feature of reality that's there regardless of whether there are agents. For example, if one believes that the best way to pin down the open future is to theorize about it as some form of indeterminacies in the temporal reality after the present moment and the lack of said indeterminacies before the present moment, those indeterminacies shouldn't *solely* be options for actions. Even in Black's (1952) deserted Universe where there is nothing but two qualitatively identical spheres, time still passes, the future is open, and the past is fixed.⁵ *Due to* its fixity, the past is such that, *had there been* people, they wouldn't have been able to do anything about the past of the spheres; and due to its openness, the future of that world is such that, *should there be* people, there would be something metaphysically possible, as far as the nature of temporal reality is concerned at least, for them to do about the future of the spheres. So, if an account of the open future theorizes about such openness as a feature that presupposes actual agency, the account fails to capture our ordinary conception of the open future.

Moreover, whereas it's an important data-point that the open future is about a limit of action, it isn't meant to be about a limit of *free* action *per se*. The future is open in a way that allows actions, not just free actions. The past is fixed not just in a way that forbids one from acting freely about the

⁵ This brings our attention to the distinction between the intuitive *datum* about the open future and a metaphysical *theory* of the open future that accounts for the datum. One might say that the future consists of branches, or that future statements don't have determinate truth-values, or that future times don't exist. These are ways to offer a theoretical underpinning for the intuitive datum about the open future, i.e., the intuitive idea that there is something objective about the temporal reality that *explains why* there is something one can do about the future but not the past. It's a mistake to present a theory as if it's the datum itself. The indeterminacy of semantic values, for example, is a highly theoretical notion. It's implausible to present it as a part of our intuitive datum.

past; one cannot do *anything* about the past. Nothing can coerce you into doing something about the past any more than you can do things about the past freely.

Diekemper (2007) agrees that the debate about the open future and the debate about free will are distinct:

[T]he doctrines of fatalism and the fixity of the future *are* distinct. Fatalism is, by definition, an agent-centered doctrine. The intuition about the asymmetry of fixity, however, is not, *as such*, an intuition about human agency, it is an intuition **about the nature of events in time**. (432; my emphasis)

Despite the fundamental distinction between the issue of the open future and the issue of free will that both Diekemper and I agree on, the two issues are somehow related. The exact nature of this relation is where Diekemper and I disagree. It's a disagreement worth flagging right from the start because it's a source of objections to things I'll say in the subsequent discussion.

I believe the connection between the open future and free will is thin. The fixity of the past leads to a ban on actions and the openness of the future doesn't. Although the issue about fixity and openness is primarily about action and not free action, one cannot have free actions without actions. If there can be no actions regarding the past, there can be no free actions regarding the past. Since the openness of the future permits actions, it remains to be seen whether we can do anything freely about the future.

Diekemper assumes a stronger connection between the two:

[G]iven the existence of agents, a fixed future implies fatalism, but is not a consequence of it. The reason a fixed future would not be a consequence of fatalism is that the domain of

events associated with the latter is much more restricted than in the case of a fixed future: fatalism is only a doctrine about events involving agents. So according to this answer, if all future events are fixed, then human beings lack freedom; but if fatalism obtains, then from this we can only infer that future events involving human beings are fixed, not that all future events are fixed. (435)

First of all, I agree that a fixed future implies fatalism for the reason I've just explained: our ordinary conception of the open future has it that fixity, whatever that is, explains why there is a ban on doing something about the past; so, if the future events had fixity too, there would be a ban on doing something about the future as well.

Secondly, I also agree that fatalism doesn't imply a fixed future. But Diekemper and I have different reasons for believing that. In the quote, Diekemper says that the *only* reason that fatalism doesn't imply a fixed future is that fatalism is about human future alone and the claim about a fixed future is a claim about the future generally. Since this is the only reason, once we set aside this reason by restricting our attention to human affairs alone, the events involving human beings would be *required* to be fixed for those events not to be up to our free choice (i.e., fatalism).

Diekemper's reasoning behind the second point plays an important role in his objection to Mellor's B-theoretic-friendly attempt to explain the open future by the direction of causality. The objection is that, if Mellor were right that the open future (and the fixed past) boils down to the fact that causation only goes forwards, the future events involving human beings would still be open *even if* fatalism were somehow true due to causal determinism. That's because the directionality of causation remains intact in such a deterministic world. But according to Diekemper, fatalism implies that future events involving human beings are fixed. Hence, we have a *modus tollens* against Mellor (440-441).

But it's *false* that the *only* reason that fatalism doesn't imply a fixed future is that fatalism is about human future alone and the claim about a fixed future is a claim about the future generally. The fixity of the past explains why there is *absolutely nothing* we can do about the past. But, on the flip side, the openness of the future isn't a genie gone rogue; it only grants us that there is *something* we can do about the future. Fixity is only meant to be *one of the ways* in which the possibility of action is limited. If that's the case, even if we limit ourselves to future events involving human beings, the mere fact that such events aren't up to our free choice (i.e., fatalism) shouldn't *entail* that those events are fixed (i.e., no actions are available). That isn't part of our ordinary conception of the open future and shouldn't be a desideratum for a successful theory of the open future.

As we shall see, the shrinking block metaphysics has this same feature as Mellor's: future human affairs might remain open in the relevant sense even if fatalism were true. Diekemper would therefore have the same worry about the view. But then he would be wrong. The issue of free will and the issue of open future are more distinct than he thinks.

3. Nothing/Something One Can Do

The openness of the future, whatever it is, is meant to explain why *ordinarily* there is something one can do about the future but not the past. The task of section 3 and 4 is to flesh out what exactly "there is something one can do about the future but not the past" means. By getting clearer on what the open future is to explain, we put ourselves in a better position to develop useful desiderata for a theory of said openness.

Perhaps this is what we have in mind: there are future events that will be results of my current actions, but no past events were results of my current actions.⁶ Let's call this the **Causal Interpretation** of our intuition that something can be done about the future but not the past. This is a tempting way to unpack our intuition that deserves close scrutiny.

There are things that people can make a difference about and there are things that people cannot. For example, no actions can lead to the result that something travels faster than light. However, for results that we cannot produce, it's possible for us *to at least try*. If the idea that there is nothing we can do about the past is *simply* about the fact that no past events can be results of what we do now, it should still be possible to *try* to do things about the past. But that isn't true.

Imagine seeing your neighbor working on his fences. He says he's stopping his cat from sneaking out last night. Even without further detail, you can tell something is wrong: there is nothing one can do about the past. Now suppose, instead, your neighbor says that he's *trying* to prevent his cat from sneaking out last night. Your reaction should be the same: ordinarily, there is nothing more one can *try to do* about the past than one can *do* about the past. Intuitively, there is a tense-based limitation on both doing and trying. Trying doesn't necessarily involve causally producing *any* result. Hence, whatever we mean in our intuitive idea that there is nothing one can do about the past, we don't simply mean that our current actions cannot bring about results in the past. The intuitive constraint imposed on agency runs deeper.

My objection to the Causal Interpretation relies on the claim that there is an intuition that there is no trying about the past. One might wonder whether that's true. What if someone *tries* to do

⁶ There is a distinction between a *consequence* of an action and a *result* of an action. The latter is a part of the action; the former isn't. See McCann (1974: 451-454). My argument works whether we formulate this proposal in terms of consequence or result.

something about the past by what *she believes to be* some kind of backward causation technology, e.g., time traveling?⁷ Doesn't that count as *trying to do something about the past*? If so, perhaps we don't really have an intuition that backward-trying is impossible.

Intuitively, pigs can't fly. Someone can be interested in understanding this intuitive fact. But, of course, we *can* get pigs to fly – we can make jetpacks for pigs. Should we therefore dismiss the intuition as a mistake? Our intuitions certainly are fallible; but the possibility of jetpacks for pigs isn't a reason for that.

Here is a better way to describe what's happening. The intuition that pigs can't fly is a **contextualized intuition**. It's meant for ordinary contexts, where outlandish ideas like jetpack for pigs, genetic engineering, pigs floating in a space station with zero gravity, etc. are set aside. A contextualized intuition loses its force when ideas are introduced that move the conversation beyond the intuition's intended context. This is neither an indication that the intuition is misleading, nor an indication that the intuition should be explained away. Someone who is interested in the intuitive phenomenon that pigs can't fly is interested in understanding why, *ordinarily*, pigs can't fly.

There is an intuitive sense in which, ordinarily, there is nothing we can *do or try* about the past. When my neighbor says she *is* stopping or trying to stop her cat from sneaking out *yesterday*, it's hard to deny that, intuitively, something seems off. Surely, the intuition against doing something about the past vanishes *if* we bring ideas of backward causation technology (e.g., time travel) into the conversation. Now suppose my neighbor *believes* that pressing a button on a past-altering machine now prevents her cat from sneaking out yesterday. Is she *trying* to do something about the past when

⁷ I say backward causation *technology* instead of just backward causation because backward causation alone, which *might* already exist all the time at the fundamental level, isn't enough to give us the possibility of backward agency. Only backward causation that we can capitalize as agents does.

she presses the button? I don't have an intuition that she isn't. My intuition against backward-trying appears to be gone.

These intuitions that we are interested in vanish when we bring notions of backward causation technology into the conversation in one way or another. Like our intuitions about flying-pigs, this *doesn't have to be* an indication that the intuitions should be dismissed as mistakes. We *can* think of them as contextualized intuitions. They are meant for ordinary contexts. To be interested in these intuitions is to be interested in articulating the sense in which, setting ideas of fanciful technologies aside, agents can't *just do* or *just try* to do things about the past like they ordinarily just do or try to do anything else. When I want to try to make an omelette, I can *just try*; when I want to try to do 100 push-ups, I can *just try*; even when I want to try to draw an impossible triangle, I can *just try*. I don't need to bring in the idea of some sci-fi omelette making machine, or sci-fi push-up machine, or sci-fi drawing machine. But intuitively, you can't *just try* to do something about the past. One can just try not to blink. But one can't *just try*, right now, not to blink a moment ago. The change in tenses alone makes the difference in agency. Intuitively, like backward-doing, there is something about backward-trying that, *normally*, it can't happen.^{8,9}

It should be evident from this discussion that I handle the intuitions under an *inclusive principle*. I interpret our intuitions to avoid dismissing any of them. That's due to the nature of my project,

⁸ Someone might also try to do something about the past by a petitionary prayer to God about the past (see C. S. Lewis 1947: 214). Unlike Geach (1999: chapter 7), I don't think that's absurd. But I don't find atemporal agency intelligible. So, the only way I can make sense of it is to think of it as a prayer for God to *travel back in time* to do something about the past.

⁹ I don't take myself to be saying anything non-standard here. In the open future literature, philosophers offer different theories about the open future and the fixed past. They all take the intuitive phenomenon seriously. Yet, none of them deny the possibility of time travel. It's clear that the intuition is meant to be interpreted in a qualified manner.

which is an attempt to figure out whether it's possible and, if possible, how to have an account of the open future that can *fully* accommodate our intuitive data. Some readers may prefer to choose a straightforward theory based on a few core intuitions and explain away the peripheral ones – e.g., the intuition about trying – as noise in our data. They may find this selective approach more natural than what I just did – bending over backwards to preserve every bit of our intuitions and accommodate our intuitions about doing and trying with the notion of contextualized intuition. Mine isn't the only legitimate project in metaphysics of time. One certainly can pursue the selective approach. It just isn't my project. As I have emphasized, I don't want to argue that we should accept a theory just because it accommodates *all* aspects of our intuition regarding the open future and the fixed past. But I believe it's dialectically significant to at least know whether it's possible and, if possible, how a theory can do so. *After that*, we can have the *next* conversation about theory-choice. That's the rationale behind my project. Ordinarily, something seems off intuitively when someone claims to be *doing* something about the past. That's a piece of datum. The same intuition also makes it seem off when, ordinarily, someone claims to be *trying* to do something about the past. I take that as a piece of datum as well. If we want to preserve *all* these data, without dismissing any of them as mistake, we better not interpret the intuitive limit of agency according to the Casual Interpretation.

My argument against the Causal Interpretation can be presented as an argument by disanalogy. The impossibility of making something travel faster than light and the impossibility of a paralyzed patient moving his arm are typical examples where nothing can be done to produce certain results. I point out that the way agency is limited in these examples is quite different from the way agency about the past is limited. That difference is made evident in that tryings are still allowed in the former, but not in the latter.

One might protest that I fail to present a genuine disanalogy. *Trying* to φ requires *intending* to φ .¹⁰ Some argue that, although it's possible to intend what's impossible, it's impossible to intend what is *believed to be* impossible. One cannot try what's believed to be impossible. Therefore, it would be wrong to say that a person *tries* to accelerate a piece of rock beyond the speed of light believing that that's impossible. It might be said that we generally *believe* that backward causation technology is impossible. One might then argue that it's *in this sense* that, intuitively, it's impossible for us to intend and hence *try* to do something about the past. Unlike the first pushback, this one doesn't require us to dismiss any of our intuition-data. Our intuition against backward-*trying* is preserved. But it's interpreted in a way that separates it from our intuition against backward-*doing*. As a result, the intuition about trying sheds no light on the proper interpretation of our intuition about doing and thereby poses no challenge to the Causal Interpretation of the latter.

Here's my response. *It's possible* to intend what's believed to be impossible. It's tempting to think that one *couldn't* try to do something one believes to be impossible. But that's only because, normally, one *wouldn't* do so, not that such trying is *impossible*. I can try to make a shot at the mid-court line, believing that it's impossible for me, to show someone that it's impossible (Ludwig 1992: 263). If intentionally trying to φ implies having the intention to φ , this is a case of intending what is believed to be impossible. Perhaps one isn't moved by Ludwig's example because it's hard to conceive of someone believing that it's *strictly impossible* to make a shot at the midcourt. Here's another case. A

¹⁰ Can trying simply be identical to intending? Arguably not. Trying is typically meant to be the last link between intention and action. Hence, trying and intending play different functional roles. Ruben (2016; 2013) argues that this last link is needed to help us intelligibly describe cases of late stage weakness of the will. In such cases, a person has the relevant desires, beliefs, intentions, etc. all ready to act, but chickens out in the last minute. Ginet (1990) would also argue that having an intention alone doesn't have the "act-ish phenomenology" that accompanies our really trying to do something.

person knows that drawing a triangle that has interior angles bigger than 180 degrees is mathematically impossible. Yet, she can, when teaching a kid geometry, *try* to draw one in order to show him that it's impossible. Her desire to show the kid that offers no justification for trying *simply* to draw the three lines or for trying *simply* to draw something that *closely resembles* an impossible shape. To understand her as rational, we have to describe her as trying to draw a triangle that she believes to be impossible; her trying and failing to do so *jointly demonstrates* to the kid that it's impossible.¹¹

As Hedman (1970: 36) argues, it's in the context of moral appraisal that the idea of intending and trying the impossible has the most prominent presence. We reserve high praise for those who, for moral reasons, try to do what's believed to be impossible. For example, in the *Analects*, Confucius is praised as someone "who knows it can't be done and keeps doing it" (14: 38). Discussing the general history of politics, Kant says that a civil society that we should try to achieve is strictly speaking impossible: "its perfect solution [i.e., a truly civil society] is impossible: nothing entirely straight can be fashioned from the crooked wood of which mankind is made." (Ak 8:23)

The idea of intending to bring about what's believed to be impossible is deeply embedded in our practices that it should be the *default view* that such intentions are possible. Ludwig (1995) calls this the Autonomy Thesis. To deny the Autonomy Thesis is a revisionary claim that requires compelling arguments. Notice that simply proposing a way to systematically replace claims about

¹¹ As Thalberg (1962: 54) rightly points out, examples of someone intending to do something she takes to be impossible cannot be paraphrased away as her merely intending *to act as closely as she can to φ -ing* (instead of intending to φ). Imagine a doctor desperately trying to revive a patient who she believes to be beyond saving. That's different from a doctor who intends *to simply act as close as she can to reviving a patient without actually saving the patient*. This description is true of the intention of a doctor who is trying to *fake* saving a patient. Hence, the proposed paraphrase will fail to capture the content of the doctor's desperate and good intention to try to do the impossible.

someone trying to do what she believes to be impossible with claims about something else isn't an *argument* for endorsing said proposal and against the Autonomy Thesis.

Some arguments against the Autonomy Thesis have been offered. None of them is compelling. Here are a few examples. Hampshire (1959; 1975) argues that, should we accept the Autonomy Thesis, the distinction between intention and wish, which should serve different psychological functions, would collapse. But Hedman (1970) is right to point out that there are other ways we can keep the functional roles of intention and wish distinct. Another example: while conceding the intuitive force of the cases of people intentionally trying to do something that they believe to be impossible, Bratman (1984) denies that trying to φ intentionally implies having an intention to φ . If so, the examples of people intentionally trying to do something they believe to be impossible aren't evidence for the possibility of *having intentions* about the impossible. He argues that trying to φ intentionally doesn't imply having an intention to φ by appealing to cases that he describes as a person knowingly aiming for two incompatible goals at the same time in the hope of landing one of them. Practical strategies of this sort are rational. However, Bratman argues that, if trying to φ intentionally indeed implies the intention to φ , a person that strategizes this way would have incompatible intentions and hence be irrational.¹² In response, Ludwig (1992: 270) made a compelling case that examples like this are more plausibly described as a person intentionally pursuing a disjunctive goal and having a *disjunctive* intention instead of incompatible intentions.¹³

¹² It isn't self-evidently irrational to have inconsistent intentions. Kane's (1999) libertarianism requires free, self-forming actions to consist in an agent intending competing options simultaneously.

¹³ I want to flag a deeper issue with rationality-based arguments like the one Bratman offers. Quite often, they involve a narrow vision of rationality that invites a knee jerk reaction against any appearance of inconsistency. But consider how we use mutually inconsistent scientific models to acquire understanding of a phenomenon. Doing so doesn't assume that

Since there is no compelling argument against the Autonomy Thesis, which I take to be the default position, it's possible to intend to do something that's believed to be impossible. The intuition against backward-trying cannot be adequately captured as a common belief that causing something about the past is impossible. Hence, I stand by my objection to the Causal Interpretation.

4. Nothing/Something One Can *Will*

To flesh out the intuitive restriction that applies to *both* doing and trying, we need conceptual resources to think about agency in a more nuanced way. Actions are different from events that merely *happen to* people: actions are *executed* by agents. Mele writes:

We can have a variety of attitudes towards plans: for example, we might admire plan x, be disgusted by plan y, and desire to execute plan z. To have the [occurrent] intending attitude towards a plan is to be settled (but not necessarily irrevocably) on executing it. The intending and desiring attitudes towards plans differ in that the former alone entails this settledness. (2009: 6-7)

An *executive attitude* towards a plan is the settled attitude towards carrying that plan out.¹⁴ The executive attitude, which may or may not be conscious, is meant to be the final link through which a person turns *considerations* into *deeds*. For any action one performs, it's possible to have a person who

we can, even in principle, construct *one* comprehensive and consistent model for the phenomenon. See Weisberg (2007: 645) on *multiple-models idealization*. This should at least give us pause before we jump to any conclusion about the relation between irrationality and inconsistency. Even if a person intends to A and intends to not-A at the same time, without further argument, it isn't obvious that the person is irrational.

¹⁴ See also Mele 1992; 1995; 2004.

has exactly the same beliefs, desires, values, temperament, etc. (i.e. anything that presents that action favorably to the person) and yet not to act. An executive attitude is the difference-maker.

There are different views about what plays the role of the executive attitude. In the quote above, Mele says that our executive attitudes are (occurrent) *intentions*. On the contrary, Ruben (2016: 283) argues that the possibility of a final stage weakness of the will like having a firm intention to jump into a bath of ice water but chickening out at the last minute shows that intentions don't play the role of the last link between considerations and actions. Something else does. He thinks that is *trying* (also McCann 1974 and Ginet 1990). Yet, there are others who think that not all actions involve trying. To try, according to them, consists of exerting effort to do something. But there are effortless actions. So, the element that converts considerations into actions must be something other than trying. O'Shaughnessy (2009) and Holton (2003) call that *volition* or the *will*.

The usage of a lot of these action-theoretic notions in the literature is quite unstable. To avoid confusion, here is how *I* use these notions. I use "trying" in its ordinary way to denote the act of putting an effort into doing things. "Will" and "volition" are used interchangeably to refer to the executive attitude for performing an action. (As it should be clear by now, by "will", I don't mean "free will". An exertion of the will may or may not be free.) This is an arbitrary semantic choice. I remain neutral as to what our executive attitudes really are. For example, if one agrees with Mele that occurrent intentions are the executive attitudes, then they are what I refer to when I use the word "will". If, however, one thinks that executive attitudes are something else, then the will is something else. Similarly, if one insists that, despite the way we use the word "trying" in ordinary conversation, tryings really have nothing to do with effort, then I'm happy to use "trying*" instead to denote the act of effort. I don't know whether this debate about trying is merely verbal; but, *for my purpose*, the issue isn't important.

Here's an important question: how do we *will* an action? There are two ways that can happen, depending on whether the action under consideration is basic or not. φ -ing is non-basic if and only if one φ -s *by* performing another action. (I'll follow Ruben (2013: 725) in calling the other action a person's *by-act* for φ -ing.) For example, a person attends a football match by traveling to Germany. The traveling is her by-act for the action of attending a football match. Actions that you just do, not by doing something else, are basic actions. If φ -ing is a basic action, I simply will to φ . If φ -ing is a non-basic action that I do by ψ -ing, my will to ψ is also my will to φ .¹⁵

We are finally in a better position to articulate what we are really getting at when we say there is something we can do about the future but not the past. Here's my proposal: there are no actions in the past one can now *will*, but there are actions in the future one can now *will*. Call this **the temporal limit of volition**.

A disambiguation is needed. Let's distinguish two questions: (i) When does one will the action to be performed? (ii) When is the willed action performed if it's performed? Say I will to reach for the water bottle after an intense workout. But I'm so exhausted that, although I *will* to reach for the bottle, I only begin to *perform* the action of reaching out seconds later. To answer question (i) for this case: I will to reach for the bottle immediately, i.e., *right now*. But to answer question (ii): due to physical exhaustion, the action, if it's performed, is performed seconds later. (i) is about the willed timing of the action and (ii) the timing of the willed action.

The temporal limit of volition says that there are no actions in the past one can now will. The claim may be interpreted in two ways: either as a limit of the willed timing of the action or a limit of

¹⁵ The teleological "in order to" relation between an action and its by-acts isn't necessarily causal (contra Danto 1963; 1965). Sometimes, a by-act indeed *causes* an action but, other times, the relation is a *mereological* or a *realization* relation instead. And nothing can be caused by a part of itself (see Ginet 1990: 16; also Amaya 2017).

the timing of the willed action. It might be read to be saying that one cannot presently will an action specifically to be performed in the past, or it might be read to be saying that one cannot presently will an action such that the willed action, if performed, is performed in the past.

My proposal is meant to be read in the second way. If the proposal is interpreted in the first way, it wouldn't adequately capture the intuition that there is something we can do about the future but not the past. Here's why. Sometimes we will time-specific actions. In such cases, the *content* of my volition specifies the timing of the willed action. But in other occasions, we act in a more flippant manner. Note that the intuitive idea that there is something one can do about the future but not the past is meant to apply whether or not the agent is attentive to the action's timing. Therefore, if it's interpreted in the first way, i.e., as a limit about the *temporal content* of our volition, my proposal is no good.

Next important issue: how does my proposal avoid my objection to the Causal Interpretation?

Tryings are actions.¹⁶ If tryings are actions, they have to be based on *volition*. When one tries to φ , one performs the trying *in order to* φ , i.e. the trying to φ is the by-act of φ -ing. As I've pointed out earlier, if one ψ -s in order to φ , one's will to ψ just is one's will to φ . Therefore, when one tries to φ , one doesn't only *will trying* to φ , one also wills φ -ing. There is no such thing as a volition to try to φ without a volition to φ .

My proposal says that, intuitively, there are no actions in the past that one can presently will. Since trying an action implies a will to perform that action, the proposal entails that there are no tryings of past actions as well; such a limit doesn't apply to future actions. Hence, this proposal

¹⁶ One might be tempted to say that a trying just is having a *feeling* of trying. If so, trying cannot be an action. But Massin (2017) plausibly argues that tryings play functional roles that mere feelings cannot play (240).

successfully captures an important aspect of our intuition that the Causal Interpretation fails to deliver.

5. The Open Present Desideratum

Let's take stock. There is an objective feature of future events. *Whatever* we end up theorizing this feature to be, label it "openness". Past events lack this feature; label this lack of openness "fixity". A theory that tells us what openness really is should be able to explain what I called the temporal limit of volition in the previous section. This is an important result. Having a clearer sense of what openness is meant to explain gives us valuable information about the **functional role** openness is meant to play, *if* this objective feature exists.

In this section, I'll argue that, if that's the functional role of openness, there is a new desideratum our metaphysics of openness should meet. Philosophers in this debate typically focus on the future and the past. The former is open and the latter isn't. How about the present? I'll argue that, whatever this feature "openness" is, it has to be a feature present events share. Call this the **Open Present Desideratum**.

We cannot tell how *exactly* the lack of openness of past events explain the temporal limit of volition without already having a metaphysics of openness. Nonetheless, something can be said at an abstract level. For openness to play its explanatory role, this must be true: for a person to will an action, that action must have openness at the moment of volition. I call this the **Openness Requirement**.

Here's my argument for the Open Present Desideratum based on the Openness Requirement. Quite often, we presently will actions that are performed in the future. For example, when I shop for eggs *in order to* bake a cake, I've the executive attitude to bake a cake. *If* the action willed, i.e., cake baking, is indeed performed, it's in the future; I'm not baking a cake while I'm in the grocery store.

Cake baking is a *non-basic action*. We may also have an executive attitude to a *basic action* that is in the future. Consider the example of reaching for a bottle again. Raising my arm (normally) is basic. But I'm so exhausted that, although I *will* to reach for the bottle presently, *if* the action is delayed, I only start to *perform* the action later in the future.

Not all actions we will are such that they, if performed, are in the future. Now isn't too late for doing things. Sometimes, we do things in the present. I call them **instantaneous actions**. So, there are some things we can do about the present just as there are some things we can do about the future. If so, the Openness Requirement entails that some present events/actions are *presently open*. Our metaphysics of time must therefore meet the Open Present Desideratum.

My argument relies on the distinction between instantaneous and non-instantaneous action. On the one hand, non-instantaneous actions are actions that one presently wills but performs later (if they are performed). A non-instantaneous action takes time to build up from the attitude of execution to the performance of the willed action. There is a time gap between *volition* and *performance*. Instantaneous actions, on the other hand, are actions that don't require a building-up: the performance begins at the very moment it's willed.

It's clear that non-instantaneous actions exist, as we saw in the water bottle example. How much building-up time an action needs varies. The water bottle example is a case where the time gap is made obvious by exhaustion. In other cases, the time gap can be so small that the agent barely notices it. If Adams & Mele (1992) is right that an executive attitude doesn't have to be conscious, and if we take the classic study by Libet *et al.* (1983) into consideration, it's plausible to think that most of our actions are non-instantaneous.

But the key question is whether instantaneous actions exist. If not, I've no reason to insist that there is something we can do about the present. Fortunately, there are instances of instantaneous actions: **tryings**. There is no time gap between *the will to try to ϕ* and *the actual trying to ϕ* . Willing to try

is the beginning of trying. The moment you are in the attitude to execute an act of trying to φ , you have begun trying to φ (even if *the φ -ing itself* may happen later).

Here's a concrete example. It makes sense to say that you first willfully exert yourself to reach for a bottle, but only actually perform the action moments later due to exhaustion. Note that *reaching for the bottle* and *trying to reach for the bottle* are two actions. Although exhaustion delays my reaching for the bottle, it doesn't delay my *trying* to reach for the bottle. It doesn't make sense to say you first willfully exert yourself to try to reach for a water bottle, but only actually try to reach the bottle later. The moment you exert yourself to try, you've already begun trying. Unlike non-instantaneous actions, there is no such thing as building up to a trying before the trying.

Finally, to understand the significance of the Open Present Desideratum, it's important to be clear about its *scope*. My argument for the desideratum relies on figuring out which kinds of action must be open based on considering which kinds of action one can presently will. Does it mean that all a metaphysics needs in order to meet the Open Present Desideratum is to attribute openness to all and **only** the present and future actions that someone presently wills? No.

Let's set probabilistic explanation aside, since the metaphysical explanation we seek isn't meant to be probabilistic. There are different moving parts in a quest for explanation. Say there is a fire and we want to explain its occurrence. The presence of oxygen is an *explanans*. This doesn't imply that fire occurs whenever there is oxygen. An *explanans* doesn't have to be a sufficient condition of its *explanandum*. As an *explanans*, oxygen is only a part of the *full* explanation of the fire.

For those who seek understanding, knowing **that** oxygen contributes to the fire isn't enough. We also want to know **how** exactly oxygen contributes. To do that, we want to isolate the factor that oxygen brings to the table to help explain the fire. What we try to locate is something that burning *requires* and oxygen *by itself provides*. Oxygen contributes to the fire by providing the oxidizing agent — a substance that removes electrons from other substances during a reaction — required for

combustion. The presence of oxygen is *sufficient* for the presence of oxidizing agents, which is, in turn, *necessary* for the fire. By locating this factor, we understand how oxygen serves as an *explanans*.

We can presently will future actions but not past actions. This calls for an explanation. Future actions can be willed *due to their being in the future*. Just like we want to know how oxygen helps explain the fire, we want to know what the actions' being in the future brings to the table to help explain their availability to our will. As we've learned from the oxygen case, what we seek is a feature that being in the future *by itself guarantees* and without which no action would be available to volition. We label this feature "openness" throughout this paper (and the lack of this feature "fixity").

If a theory should say that those future actions we presently will are available to volition because being events in the future is **sufficient** for these events to have the openness required, other future events *should* also have the same feature we call openness. So, if a metaphysics takes the open future seriously, the future cannot be just partially open: for *any* state-of-affairs **s** at a moment **t**, if **t** is in the future, **s** is open.¹⁷ The same applies to the present. If we want to say that some actions in the present are available to our will because being in the present gives them the required openness, the present cannot be only partially open: for *any* state-of-affairs **s** at a moment **t**, if **t** is in the present, **s** is open.¹⁸

¹⁷ That's why I don't think that Cameron's view can claim *credit* for being flexible by allowing partial openness of the future (Cameron 2015: 197-198).

¹⁸ One might wonder whether the claim that the openness of the future must be thorough contradicts my earlier claim that there is only *something* we can do about the future. There is no inconsistency. When I said not everything about the future is open to us, I meant not every conceivable course of the future is open to us. I'm quantifying over *conceivable* futures. By contrast, when I say here that, for *any* state-of-affairs **s** at a moment **t**, if **t** is in the future, **s** is open, I'm quantifying over states-of-affairs that are *indeed* in the future and talking about the openness that makes them special so that volition about them is possible. If we accept a branching future metaphysics, for instance, what's indeed in the

To summarize:

- (1) A moment is either thoroughly open or thoroughly fixed.
- (2) If there are instantaneous actions, the present is at least partly open.
- (3) There are tryings.
- (4) Tryings are instantaneous actions.

Therefore,

- (5) The present is thoroughly open.

6. The Growing Block

The way I argued for the Open Present Desideratum appeals only to the functional role openness is meant to play, purposefully avoiding any substantive commitment to what openness is. Now I'll apply the Open Present Desideratum to show that the two major A-theoretic approaches to the metaphysics of the open future — the ontological approach and the indeterminacy approach — fail to meet the desideratum.

We've pinned down the functional role of openness, if such an objective feature exists. What plays this role? The growing block theorists' account of the openness of the future is ontological. Openness is non-existence. The future is open in the sense that nothing in the future exists. Then, it

future are all and only the states-of-affairs in those future branches. If we accept a growing block, this thoroughness requirement quantifies over an empty set.

seems that, with the Open Present Desideratum in play, the growing block theorists have to accept the following argument:

(6) That the future is open consists in the fact that nothing exists in the future.

(7) The present is open.

Therefore,

(8) Nothing exists in the present.

A growing block theorist doesn't have to reject that there are future truths, e.g., the truth that the sun will rise tomorrow. Surely, if she accepts truthmaking maximalism, she needs to cook up the proper truthmakers for future truths (see Briggs & Forbes 2012 for an interesting attempt).¹⁹ But even if our growing block theorist decides not to find truthmakers for future truths and just abandon truthmaking maximalism, that shouldn't be a big problem for the view, given that the growing block theory isn't *primarily* motivated by truthmaking in the first place.²⁰

¹⁹ Similarly, a presentist doesn't need to give up past truths. See Ingram (2018) for an approach that appeals to the *thisnesses* or *haecceities* of past objects.

²⁰ Assuming that there are future contingent truths, Cameron (2015: 194-195) argues that it would be *ad hoc* for a growing block theorist to say that future contingent truths aren't sensitive to ontology (i.e., there being future truths without future ontology). He argues that it's *ad hoc* because such a theorist would be treating past truths and future truths differently. It's a mistake to think that an account is *ad hoc* simply because it doesn't treat a subject matter in a unified manner. In particular, it isn't *ad hoc* to treat past truths and present truths differently as long as each of those treatments is motivated by general and not arbitrarily restricted principles. Growing block theorists are motivated to accept a

Similarly, the conclusion (8) doesn't say that there are no present truths. The growing block theorists say (6). As I've argued extensively, the intuition that there is something we can do about the future but not the past — which is an important motivation for the growing block theory — and the existence of instantaneous actions like tryings urge us to accept (7). So, the argument (6) - (8) says that a growing block theorist should accept that, although there are present truths, nothing exists in the present.

Although my argument doesn't force the growing block theorists to reject present truths in general, they have to give up *some* present truths, e.g., *I exist now*. (If nothing exists now, I don't.) This is probably as bad a theoretical consequence as a theory can produce. As a result, the argument (6) - (8) tells us that the growing block theorists' way of accommodating the open future — i.e., (6) — is a dead end.²¹

dynamic reality. And it's intuitively plausible to think that some but not all truths have truthmakers (e.g., arguably, negative existential truths have no truthmakers — of course truthmaker maximalists disagree, but that isn't the point). It's generally plausible to think that a truth has a truthmaker if the entity relevant to the truth exists. Given all these defeasible but independently motivated principles, it isn't *ad hoc* at all for a growing block theorist to think that past truths are sensitive to ontology and future truths aren't.

²¹ It's worth separating what I'm trying to force the growing block theorists to say by (6) - (8) from Diekemper's (2014) pastism, which says that the only *events* that exist are those that have been completed already, i.e., events in the past. Exactly how controversial pastism is depends on what counts as an event. For example, Diekemper accepts that a person can be in a conscious state in the present, so presumably, being in a conscious state isn't considered an event for him (2014: 1101). Since a person has to exist to be in a conscious state, I suppose that, for Diekemper, *that I exist* isn't an event that is temporally extended and pastism doesn't entail my non-existence. So, there is a crucial difference between my claim that the growing block theory entails (8) and Diekemper's claim that the theory entails pastism. Whatever reason one can gather to make pastism more palatable, that won't be enough to make the rejection of *I exist* acceptable.

7. The Indeterminate Future

The growing block theory isn't the only A-theoretic approach to the openness of the future available in the literature. Barnes & Cameron (2009; 2011) and Cameron (2015) offer a Moving-Spotlight-friendly account: openness is metaphysical indeterminacy.²²

According to this approach, everything that will exist in the future and has existed in the past *exists*. The future is nonetheless open in the sense that there are *metaphysical indeterminacies* with respect to the future things. Suppose the year is 2020 and 2021-Trump exists. But it's metaphysically indeterminate whether 2021-Trump is POTUS. So, it's metaphysically indeterminate whether Trump will be president. The indeterminacy approach to openness leaves room for openness in the present because there can be metaphysical indeterminacy in the present.²³

Since the indeterminacy account has an eternalist ontology and the openness of the future isn't accounted for ontologically, accepting the indeterminacy account doesn't require me to deny my existence now. So, it *seems* that the indeterminacy account doesn't face the same problem that the ontological account has when it comes to accommodating an open present.

²² The theory of metaphysical indeterminacy on which this account of openness is based is developed in Barnes (2010) and Barnes & Williams (2011).

²³ The indeterminacy/branching conception of openness is often assumed in the free will debate. For example, Fischer (1994) presents a principle he calls the Principle of the Fixity of the Past (FP):

For any action Y, agent S, and time t, if it is true that if S were to do Y at t, some fact about the past relative to t would not have been a fact, then S cannot at t do Y at t. (78)

FP isn't obviously true. Arguably, a deterministic universe with a past that doesn't lead to my doing Y at best entails that I *will not* do Y, not that I *cannot* do Y (see Holliday 2012). Setting that aside, FP is invoked to construct an argument to show that determinism plus the lack of alternative past jointly rule out alternative future actions. By calling the principle the Principle of the Fixity of the Past, Fischer assumes and applies a branching conception of openness.

The problem remains. I've argued that, if a moment is open in the relevant sense, it's *thoroughly* open. So, if the present is open, and if openness is metaphysical indeterminacy, we should say that it's thoroughly indeterminate what's true of the existing present beings — that include myself. This implies that it's indeterminate whether I'm conscious now. But I'm *definitely* conscious now. When Descartes argues that *cogito ergo sum*, *cogito* is meant to be a premise from which he concludes that *sum*. I'm supposed to be at least as certain about the fact that I'm conscious as about the fact that I exist. If it's bad for growing block theorists that an open present forces them to deny their own existence, it's just as bad that an open present forces the proponents of the indeterminacy account to not fully endorse their own consciousness.

My *cogito* objection to the metaphysical indeterminacy approach applies equally to a slightly different account: the branching metaphysics (e.g., Belnup & Green 1994). According to this view, reality consists of temporal branches in the future but not the past. There is no *metaphysical* indeterminacy in this picture: at any given moment, the future branches are ontologically settled. But there is *semantic* indeterminacy in our talk about the future. A statement about the future is true/false only if it's true/false in all future branches. Unfortunately, retreating to semantic indeterminacy doesn't do much. Just as it's absurd to think that my current consciousness is metaphysically indeterminate, it's equally absurd to say that my claim *that I'm conscious now* is indeterminate in truth-value.

One version of the branching metaphysics appears to avoid my *cogito* objection: the thin red line theory (e.g., Borghini & Torrenco 2013). According to it, reality consists of a bunch of evolving temporal branches; furthermore, there is a thin red line, so to speak, that marks out *the one determinate course* of the actual history. In spite of the existence of all the branches beyond the red line, all future claims have determinate truth values because of this thin red line. This theory avoids the *cogito* objection because it contains neither metaphysical nor semantic indeterminacy.

That being said, I confess I have a hard time making sense of the metaphysical status of the branches in the thin red line theory. If the branches beyond the red line are only meant to be *merely possible* ways the future *could be*, then it isn't clear to me why, in light of this view, the past isn't branching as well given that there are still *possible* ways the past *could have been* despite the one true past being a certain way. If those branches aren't simply the ways the future could be, then it's unclear to me what those branches beyond the red line are supposed to be. For this reason, I don't consider the thin red line theory as a genuine option.

8. The Shrinking Block

The shrinking block metaphysics says: the future and the present are open in the sense that things in the future and the present exist and the past is fixed in the sense that nothing in the past exists. The shrinking block metaphysics isn't considered a serious option. It's almost never acknowledged — with rare exceptions like Casati & Torrenco (2011) and Hudson (2014: chapter 5), let alone defended. In Markosian's (2014) entry in the *Stanford Encyclopedia of Philosophy*, there isn't even a hint of the shrinking block being an option. The view is so not taken seriously that, when Norton (2015) “defends” the shrinking block metaphysics, which he calls the *burning fuse model*, he does so only to make the point that there must be something wrong about analytic metaphysics as a discipline that such a view can in principle be defended.

It's obvious why the shrinking block metaphysics doesn't fall prey to my *cogito* objection. I exist and I'm definitely conscious. If we modify the growing block to accommodate the open present, we'll end up having to accept that we don't exist. If we modify the indeterminacy account to cope with the open present, we'll end up having to say that we aren't determinately conscious now. The shrinking block doesn't have these problems. The present things exist just like the future things. So,

I exist now. There is no need, according to the shrinking block view, to think that the present things are fully indeterminate. We can say that it's determinate that I'm conscious now.

Here's an additional concern specifically about the indeterminacy account regarding its incompatibility with determinism. Even if we reject determinism as a global thesis about the world, our account of the open future should still be compatible with determinism. The falsity of determinism doesn't change the fact that there clearly are *deterministic* processes, whose future, *in virtue of being in the future*, still needs to be open despite being determined. The shrinking block doesn't have an issue with that. The present and the future *can* be fully determined by past truths and the laws of nature together even if the past doesn't exist. Even an isolated, static piece of rock, which has a deterministic future, can have an open future in the shrinking block.

Although the shrinking block is compatible with determinism, it doesn't entail determinism. The shrinking block is also compatible with libertarianism. Accepting the existence of something doesn't mean we cannot allow metaphysical indeterminacy about it. *If* one believes that there are *free* actions in one's future and that free actions require indeterminacy among alternatives in the metaphysical sense, one *can* have a shrinking block with future metaphysical indeterminacies in the cases of free actions.

The view is even compatible with the introduction of metaphysical indeterminacies *in the present* for a similar reason, if one is a libertarian who thinks that there are free instantaneous actions, i.e., free actions one performs in the present. The key is, if it's free will, instead of the openness of the future, that motivates the introduction of metaphysical indeterminacies, the metaphysical indeterminacies don't have to be *thorough*. We *don't* have to think that, if an event is indeterminate at time *t* because it's an event up to free choice, *all* events at time *t* are indeterminate. Therefore, we don't end up with the indeterminacy of our current consciousness.

The shrinking block, therefore, remains neutral to *all* major accounts of free will. That's a virtue because this echoes what I argued to be the proper relation between the open future and free will in section 2. The open future is *only* relevant to the topic of free will to the extent that the open future is about a temporal restriction on the possibility of actions in general and there can be no free actions if there are no actions. Other than that, the two issues should be distinct.

What I've said so far only establishes that the shrinking block doesn't violate the Open Present Desideratum. I argued that meeting the desideratum is *necessary* for explaining the intuitive restriction on agency imposed by the nature of time. Not violating a necessary condition for explaining the temporal restriction on agency alone doesn't mean much, however, if we cannot say *positively* how the shrinking block *explains the restriction*. Section 3 and 4 conclude that doing so is to offer a metaphysical underpinning for the fact that no past actions can be presently willed but some present and future actions can be presently willed. How can the shrinking block deliver?

To explain why we can't touch ghosts, here are two options. One option is to show that ghosts cannot interact with us and interaction is required for touch. Another option is to show that ghosts don't exist in the first place. Similarly, when it comes to the temporal limit of volition, there are two ways to explain that: (i) the *existing* past actions have features that prevent them to be willed presently, unlike present and future actions; or (ii) *no past actions exist* for us to will but some present actions and some future actions do.

The shrinking block offers a straightforward explanation of what we call the temporal limit of volition via (ii). On the one hand, according to the account, no past events exist. Hence, no past actions exist. So, there is *literally nothing* in the past to be willed. On the other hand, the shrinking block says some present actions and some future actions exist. Hence, the nature of time permits that there are present and future actions for one to will.

Here's a tempting reaction: "I don't understand. If the future exists and it's determined how the future will unfold in your metaphysics, how can the future still be open?" Setting aside what I pointed out a few paragraphs ago that the shrinking block is actually compatible with future indeterminacies, to think this way is to be stuck in the mindset that the openness of the future *somehow* must be about indeterminacy of some sort. One of this essay's major claims is exactly that we should free ourselves from this mindset. As I've mentioned, we need to separate the *datum/phenomenon* that there is something we can do about the future but not the past from the *theories*. (See footnote 5.) Based on the arguments that I've offered so far, whether or not we think that there are future indeterminacies *for other reasons*, the openness of the future shouldn't be *theorized* as a form of indeterminacy. In what sense can an existing — possibly determinate — future be said to be open? Only in this sense: the existence of the future **plays the functional role** of openness (section 3-5) by explaining why *there is something* we can do/will about the future but not the past.

9. Objections

The shrinking block accommodates the open present and future neatly. Nonetheless, there are potential objections.

One might argue that volition is an *intentional* state with an intentional object. The instantiation of an intentional state doesn't require the existence of its intentional objects. For example, *worshipping x* is an intentional state; one can worship Cthulhu even if Cthulhu doesn't exist. Similarly, to will an action, one might argue, doesn't require the action's existence. If so, one can't explain why past actions cannot be willed by appealing to the non-existence of past events. The same might be said about the futility of explaining why there is something we *can* will in the present and the future by appealing to the *existence* of present and future actions.

To address this objection, let's recall something we've said concerning what a metaphysics of time is supposed to explain regarding the open future intuition. In section 4, I pointed out that there are two interpretations of the claim that there is something in the present and in the future but nothing in the past that we can now will: *either* (a) as a claim about a restriction on the *mental content* of our volition so that we cannot specifically will our actions to be in the past, *or* (b) as a claim about the *actions themselves* that says there are no presently-willed actions in the past. In other words, the restriction to be explained could be interpreted to be about what can feature in the intentional content of volition or it could be interpreted to be about the things presently-willed themselves.²⁴ In light of this interpretive distinction, there is a weak response and a strong response to the objection.

Let's start with the weak response. A theory accommodates an intuitive claim by showing how it's true in *some* sense. It's unreasonable to demand that a theory vindicates an intuitive claim by making every admissible interpretation of it true. If the shrinking block is true, the claim that there is nothing in the past that we can presently will is true in the sense that there is nothing in the past. Admittedly, the theory *cannot* vindicate the claim under a *psychological* interpretation: that volition is the kind of mental state that cannot have content about past. But as long as there is no compelling reason for thinking that the intuitive claim *must* be accommodated in the psychological sense, the shrinking block has done enough.

A stronger response is that there is a compelling reason to think that the intuitive claim *shouldn't* be accommodated in the psychological sense. In section 4, I argued that the claim must *not* be about the content of our volition. My argument was based on the observation that we have *temporally unspecific volitions* for actions occasionally. Therefore, what needs explaining shouldn't be interpreted

²⁴ Here's an analogy. To be interested in (a) is like being interested in the perceptual content when I'm looking at apples; to be interested in (b) is like being interested in the apples that I'm looking at.

to be about the temporal content of volition, but about the timing of the actions themselves. But a more general argument can be made. There is something intuitively wrong when my roommate says he's shopping for ingredients *to bake a cake yesterday*. What seems wrong isn't that I think he has misreported his mental state. His psychological self-report may or may not be accurate. What seems wrong is that the nature of temporal reality is such that it's metaphysically guaranteed that his volition is unsuccessful. What needs explaining isn't a psychological restriction on mental content. Hence, the shrinking block is *actually correct* for not explaining the intuitive idea as if it's a psychological one.²⁵

Here's another objection. There are cases where, contrary to my belief, I'll definitely *not* do something. Say I'll not go camping tomorrow because, unbeknownst to me, a meteor will hit tonight, wiping out all lives on Earth. My future camping trip definitely won't happen. According to the shrinking block analysis, this event doesn't exist and is fixed in the same way that past events generally are. One might find this implication problematic in two ways.

First, it seems that, intuitively, I can presently *will* to go camping tomorrow even if, unbeknownst to me, it definitely won't happen. A good theory of the open future should imply that this definitely-will-not-happen future camping trip is *open*. The shrinking block gets this wrong.

Second, regardless of whether our theory says the camping trip is open or fixed, the issue is that, to maintain the intuitive agential *asymmetry*, it shouldn't say *the same thing* about the camping trip and past events (e.g., a camping trip in the past). The shrinking block fails to maintain the relevant asymmetry between the future camping trip and the past.

²⁵ One might wonder whether the shrinking block rules out time travel. I don't see how the shrinking block is in a worse position than other A-theories in that regard (see van Inwagen 2009 and Wasserman 2018).

Regarding the first concern: given that we have stipulated that the camping trip *definitely won't happen*, it just isn't obvious that we must say the future camping trip is open *in the relevant sense*. The open future only says there is *something* we can do about the future, not all conceivable futures are open. Recall my response to the first objection. The shrinking block analysis vindicates the intuition that there is nothing we can will about the past *only* in the sense analogous to the claim that there is no ghost to be seen, *not* in the sense analogous to the claim that we cannot have visual experience as of a ghost. The analysis doesn't rule out that events that aren't open in the relevant sense (i.e., non-existence) may nonetheless be "open" in many other senses, e.g., being represented by my volition — the way ghosts can be represented by my visual experiences. Those events aren't open in the sense that they don't exist for volition in the same way ghosts don't exist for seeing. The camping case appears to be a counterexample when one conflates the two usages of "open".

It's also worth noticing that the camping case is about a future event (i.e., that I won't go camping tomorrow) being *determined* yet alternatives (i.e., go camping tomorrow) seem to remain open to us. The intuition that drives cases like this is similar to what fuels compatibilism in the free will debate. A compatibilist would certainly find it plausible to say that the future camping trip is *in some sense* open to me even though it definitely won't happen. And that would be expressed in terms of her preferred compatibilist analysis of the ability to act. For example, a dispositionalist version of compatibilism allows one to say that the future camping trip remains "open" to me in the following sense: I have the *general ability* to go on a future camping trip — to have "the relevant skills, competence, or know-how required to do that thing [i.e. camping]" (Vihvelin 2013: 7) — even though it's determined that I won't *exercise* that ability. To accept this version of compatibilism is to believe that this conception of ability to act (otherwise) is the one that's *relevant to moral responsibility*. One doesn't have to accept compatibilism, however, to apply this conception to account for the intuitive openness of the definitely-will-not-happen future camping trip: the trip seems open to my

will in the sense that I have this dispositionist general ability to do so, unlike past events. The shrinking block doesn't rule out other philosophically interesting notions of openness related to volition, even though these other notions are irrelevant to the intuitive openness of the future.

As for the second concern, a defender of the shrinking block may concede that there is an intuitive asymmetry that tomorrow's camping trip, which, unbeknownst to me, definitely won't happen, can be willed in a way that yesterday's camping trip isn't. But notice that a theory of the open future that treats tomorrow's camping trip and yesterday's camping trip in our story in the same way only implies that, as far as the kind of asymmetry that's *relevant* to the phenomenon of the open future is concerned, there is no asymmetry. That doesn't necessarily reject the intuitive asymmetry *per se*. There are other ways to account for the intuitive asymmetry. For example, as we have just seen, defenders of the shrinking block may draw resources from the free will debate to account for the intuition with a different asymmetry.

As a result, defenders of the shrinking block may deny that they share the intuition of an asymmetry in the camping case by arguing that any inclination to say otherwise is the result of conflating different intuitive notions of openness. Here's how it goes. It's intuitive that the camping trips in the past aren't open to my will in the sense that's relevant to the discussion about the open future; and it's intuitive that the future camping trip that won't happen is nonetheless open to my volition in either the psychological sense or the compatibilist sense. Since our intuitions about openness aren't always clear in discerning these different phenomena of openness, some are tempted to *think* that, while having these two intuitions, there is an intuition of a unified sense of openness such that the past camping trips don't have it but the future camping trip that won't happen has it. But there isn't.

10. Conclusion

As I've stated from the beginning, what I offer isn't meant to be an unqualified defense of the shrinking block, but rather the defense of the following claim: when it comes to *fully* accommodating the intuitive openness of the future (and the fixity of the past), the best option is the shrinking block.

By conceptualizing the unfolding of reality as an annihilating process like crossing out items on a checklist, the shrinking block is just as good as the other A-theories in giving us *a tensed reality* and *an objective temporal passage*. If I'm right about what our intuition about the open future amounts to (section 3-5), and if I'm right that the shrinking block is the only metaphysics available that fully accommodates that intuition (section 6-8), the shrinking block is our best shot at *fully* preserving our ordinary conception of time. All things considered, perhaps there are compelling reasons for giving up part or even all of our ordinary conception of time. But the lesson is: *if* preserving the ordinary conception of reality as much as we can is philosophically valuable, the shrinking block should be our benchmark.²⁶

²⁶ I had a lot of help working on this paper. I was first introduced to the issue of the open present by a talk Joseph Diekemper gave in Amsterdam. And I began to appreciate the significance of the distinction between the topic of free will and the topic of the open future after listening in on Forbes Graeme talking about the distinction with someone at a conference in Winston-Salem. This project wouldn't have existed without these two occasions. I want to thank many people for commenting on earlier drafts of this long paper: Matt Andler, Galen Barry, Ross Cameron, Jim Cargile, Jim Darcy, Matt Duncan, Peter Forrest, David Ingram, John Mahlan, Andrei Marasoiu, Nick Rimell, and Wai-Hung Wong. I'm grateful to Nick Rimell, Stacie Thyron, and Wai-Hung Wong for their generous help in going through my writing line by line to clean up my English. The paper also benefited immensely from the extensive comments from the two anonymous reviewers of *Philosophical Studies*. Regrettably, there are still a few disagreements between me and one of the reviewers that we couldn't fully resolve. But my exchange with them made this a much better paper. Finally, I'd like to thank the University of Wisconsin-Whitewater for giving me a course release in my first semester that allowed me to

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