**Introduction**

Why write a book about timelessness? After all, it appears *obvious* that there *is* time. The contention that time does not exist appears transparently and straightforwardly undermined by just about every experience that we have. To be sure, there is scope to debate exactly what time is like, but not whether it exists. On the contrary, we think that time might not exist. Our goal in this book is to convince you of the same.

We focus on a very specific conception of time, namely: the everyday or ‘folk’ concept of time. Time, in this sense, might not exist. The ‘might’ here is fairly weak: it is epistemically possible that nothing satisfies the folk notion of time. In this way our project is similar to an influential view about colour. According to colour anti-realism, colours in the folk sense---i.e., intrinsic properties that inhere in objects---do not exist. We won’t defend an analogous temporal anti-realism. We only hope to show that it could be true.

That’s hard enough. The loss of time in the folk sense would seem to have widespread implications for our everyday lives. The most obvious implication concerns agency. Agency appears deeply connected to time. Moral and prudential planning both seem to make sense only in the presence of a future to plan for, and a past on the basis of which to make such plans. And so, if time does not exist, then a large-scale reconsideration of these notions would seem in order—if, indeed, anything resembling what we consider to be agency or planning could survive within a timeless reality.

Given that we all know we are agents, this forms the basis of a powerful argument against the possibility that time does not exist. The argument has a Cartesian flavour: we know for certain that we are agents, time is needed for agency, so we know that time exists. Ultimately, we aim to show that agency can exist even though time, in the folk sense, does not. Thus, the considerations surrounding agency that loom so large in our lives do not provide a decisive case in favour of time’s existence.

We get to this conclusion by defeating two further reasons to suppose that time, in the folk sense, must exist. The first of these relates to the concept of time. The thought is that the everyday notion of time is immune to error, in this sense: no matter what we discover about the world people will continue to judge that time exists. Here we analyse the results of some of the first empirical work on folk notions of time ever conducted. On the basis of this work, we argue that there is evidence that certain discoveries about the world would lead people to conclude that time does not exist.

Of course, even though there are some hypothetical discoveries that would lead people to deny that time exists, it doesn’t follow that such discoveries could really be made. Thus, one might continue to believe that folk time must exist on the grounds that the discoveries that would lead people to reject the existence of time are incompatible with what we know about the world, based on our best science. We show that this is not so, by taking a look at some recent developments in quantum gravity.

This allows us to finally tackle agency. Using a notion of causation that has been cleaved from the folk concept of time, we show how to rebuild agency. In this way, we show that agency might exist despite the absence of time in the folk sense. As a corollary, we show that the loss of time is no big deal. We can continue to live our lives much as we ever did even if we discover that time does not exist. This sets the scene for a philosophical case against the existence of time. For if we don’t need time to live our lives, then what, in the end, is it good for? Perhaps time, like colour before it, is a metaphysical dangler; a notion that we use to make sense of our lives, but not one that deserves a place in a considered ontology of the world.

**Part I**

**Chapter One**

**Folk Concepts of Time**

* 1. **Introduction**

The idea that time does not exist is, for many, unthinkable: time *must* exist. Our goal is to make the absence of time thinkable. Time might not exist. This chapter lays the groundwork for our investigation. We begin by motivating and then clarifying the central target of our investigation: the folk concept of time (§1.2). We then use this to identify three respects in which the loss of time might be deemed unthinkable, which we aim to address in the book (§1.3). After that, we head off some potential misconceptions about the project (§1.4), before saying a bit about the methodology that we employ (§1.5). Finally, we provide an overview of the three main parts of the book (§1.6). This will be deliberately programmatic, to be filled out in later chapters.

* 1. **Motivation**

Our primary focus in this book is on the folk concept,[[1]](#footnote-1) or concepts, of time. We will have much more to say about how we are thinking about folk concepts shortly. But for now, we can think of the folk concept of time as *something like* the naïve view of time of the sort introduced by Callender (2017): the unreflective notion of time that individuals use in their everyday lives. To be clear, that’s not *quite* right. When we talk of the folk concept of time we don't simply mean the way the folk think about, or conceive of time. We don't simply mean what the folk think time is like. We mean something like *what the folk think (almost certainly implicitly) it would take for there to be time in a world.*

For the time being we will suppose that there is a single such folk concept, though as we shall see later on, matters are much more complex. When we make judgements about there being certain temporal relations, such as judging that E is earlier than E\*, or that E\* is tomorrow and not yesterday, or that X and Y occur at the same time, these judgments are all intimately connected with our folk concept of time. When we judge that time has a direction, or that time flows, (if we do) these are judgements that are intimately connected with our ordinary concept of time.

Why should we care about the folk concept of time? The short answer is that we should care about time in the folk sense, because it appears to be implicated in normative concepts and practices in which we are deeply invested; concepts and practices like moral and practical responsibility.[[2]](#footnote-2) We take there to be a tight connection between (certain) concepts and practices. For instance, we take there to be a tight connection between various normative concepts, such as the concept of moral responsibility or the concept of prudential rationality, and certain practices, such as the practices of holding people morally or practically responsible. We will suppose that these practices are ones that rely on deploying the concepts in question. We can engage in the practice of holding someone morally responsible only because we have and deploy the concept of moral responsibility.

Notably, then, some of our normative practices—both moral and prudential—appear to involve deploying not only normative concepts, but also temporal concepts. Moral and practical reasoning apparently involves our taking the ways things are at some times, to be moral or practical reasons for action at some other time.

The loss of time in the relevant sense thus seems to threaten our capacity to reason coherently as moral and prudential agents and, in this way, promises to rob of us of agency. This last point may not seem obvious, and so it is worth saying a bit more about the threat posed to agency by the loss of time in the folk sense. After all, science often shows our folk concepts to be in error and this doesn't usually make much of a difference to the life of the average person. Consider, for instance, the case of colour. Colour anti-realism of some kind appears to be vindicated by science. Colour science seems to reveal that there is nothing in the world that answers to the folk concept of colour. The folk concept of colour (let us suppose) treats colours as monadic, intrinsic properties of objects and, supposedly, there are no such properties (Palmer (1999, 95) Zeki (1983), Land (1983), and Kuehni (1997)). Nonetheless, this doesn’t seem to impact on the folk in any significant fashion.

There is, however, a key difference between the colour and temporal cases. Colour *experience* is left intact by science. Science does not tell us that our experiences of colours are not real, it just tells us that our experiences of colours are not experiences of intrinsic colour properties. What we are experiencing is rather unlike the way we conceptualise what we are experiencing.[[3]](#footnote-3) And, because our colour-based behaviours and practices are all based on colour experiences, there is no problem with continuing to engage in these practices despite the discovery that our folk concept of colour is in error. No colour, no problem.

In contrast, the practices that are built up around the concept of time are *not* based entirely on our temporal experiences. Rather, they are based on *beliefs* that time, under a certain conception, exists. Such beliefs include the belief that there is a past and future in some sense. Such beliefs appear to be tightly related to the folk concept of time and, in turn, to practices surrounding decision-making, which are integral to our self-conceptions as agents.[[4]](#footnote-4)

Unlike the practices surrounding colour, these practices seem to demand that the world be a certain way. In particular, it cannot merely seem to us as though we have agency (just as it may seem to us that there are colours). There must really be agency in order for the practices surrounding decision-making to be in good standing. While we cannot provide a full-blown analysis of the folk concept of agency, we can take the sorts of activities that are associated with agency as a guide in helping us to explore this point. Agency, we will assume, is associated with decision-making practices of at least two kinds: prudential and moral. First: prudential practices.

Prudential planning is the kind of planning one undertakes to bring about one's desires given one's beliefs. Agents in this mode consider their options, and make a choice based on the information that they have available to them. Prudential planning is always planning for what we believe to be in the future, and never for the past.[[5]](#footnote-5) We take certain events to be fixed in time, then, based on those fixtures, consider our options, subsequently (all going well) selecting the best---i.e., the one that is most likely to bring about a desired outcome. This practice of prudential planning makes sense only if we believe there is a future to plan for, and if there is past information that is relevant to constraining one's future plans. Without any past information, any decision is as good as any other, since as far as one can tell all decisions are equally likely to bring about one’s desired outcomes.[[6]](#footnote-6)

Time is also implicated in moral practice—in two ways. First, consider moral responsibility. We commonly hold people to be morally responsible for acts performed in the past. Suppose we then discover that there is no such thing as the past and so come to form just such a belief. Then, in a certain sense, it is just *not true* that anyone did anything wrong, because it is not true that anyone *did* anything. Accordingly, without a past to believe in, we will not believe that anyone *did* anything wrong. Second, time also seems to be implicated in the practice of moral reasoning. Moral reasoning involves working out what one ought to do, morally speaking. Making a decision about what one ought to do is making a decision about future outcomes; a decision based on information about the past. If there is no past and no future to believe in, then deciding what one ought to do in the future in a moral sense is simply not a meaningful notion.

Perhaps without time in the folk sense we would retain the ability to act as though we are agents. For instance, if we have false beliefs about the past, then maybe we could in some sense exercise our capacities for both moral and prudential reasoning. Arguably, however, this would not be to engage in genuine moral or prudential reasoning; it would certainly not involve being a *genuine* agent. Moreover, insofar as we come to know that there is no time, it’s hard to see why anyone would *bother* exercising their apparent agency. If there is no future in the sense needed for everyday moral and prudential reasoning, what would be the point? There is nothing to be planned for and no basis for any decision.

In the absence of moral and prudential decision-making practices, it would seem to follow, in quick order, that there is no genuine way to be an agent. It is tempting to think that, in such a situation, there simply are no agents in the folk sense.[[7]](#footnote-7) This loss of time in the folk sense thus represents a serious threat of agentive paralysis. If nothing in the world answers to the notion of time that underwrites agency, then it is unclear that we could, would, or should engage in agentive behaviour.

In sum, then, the loss of time in the folk sense threatens our capacity to reason coherently as moral and prudential agents and, in this way, promises to rob of us of agency. We should thus care about the folk concept of time because it is connected to agentive notions that we, the folk, care about in a manner that is not clearly true for some scientific or philosophical conception of time.

* 1. **The Unthinkability of Timelessness**

Agency not only gives us a reason to care about the folk concept of time, it also provides one of the core reasons to suppose that time in this sense must exist, and thus that the loss of time is unthinkable. After all, if time in the folk sense is required for agency, and we know that we are agents, then it appears we are forced to conclude that time in the relevant sense exists.

Ultimately, we aim to argue against this claim: time is not needed for agency. In order to get there, however, we need to consider two further reasons why one might take it to be unthinkable that time, in the folk sense, does not exist. First, one might worry that time in the folk sense is simply immune to error. Basically, there are no discoveries that one could make about the world that would lead people to conclude that time does not exist. The hypothesis of immunity seems plausible in light of the deep connection between time and agency. If agency requires time, and people self-conceive as agents, then we might well expect that people simply won’t judge that time doesn’t exist no matter what you tell them about the world. We argue against this claim too. We show that there are, in fact, situations in which people will judge that time does not exist when presented with certain discoveries about the world. This begins to drive a wedge between time and agency.[[8]](#footnote-8)

Next, we turn to science. One might concede that there are some hypothetical discoveries that would lead people to conclude that time does not exist, but nonetheless maintain that such discoveries are incompatible with what we know about the world. The loss of time in the folk sense is thus unthinkable because it is epistemically impossible given the implications of science. Again, this might seem quite plausible, especially in light of physics. According to the general theory of relativity, spacetime is a basic constituent of reality.

However, we argue that recent developments in physics present a serious challenge to the existence of spacetime in at least *some* sense. It thus seems hard to maintain that there are no hypothetical discoveries that we could make that would lead people to conclude that time does not exist.

Next we argue that causation and the folk notion of time come apart. This sets the scene for our return to agency. Because the folk notion of time and causation come apart, it is possible to have agency in the absence of time in the folk sense. We can use causation in the absence of time as a new foundation for agency. In this way, we show that agency provides no reason to suppose that time, in the folk sense, must exist.

All up, then, we make a case against three ‘unthinkabilities’ of timelessness by showing (i) that the folk concept of time is not immune to error; (ii) the discoveries that would undermine the folk concept of time are not incompatible with what we know about the world and (iii) time is not needed for agency. We stop short of the conclusion that time, in the folk sense, does not exist. But what we say does set up the conditions for an argument against time in the relevant sense. If we don’t need time for agency, then it is entirely possible for developments in physics to eliminate time completely. Time, in the everyday sense, is a negotiable feature of reality.

**1.4. Misconceptions Addressed**

Before we go any further, it is important to address five potential misconceptions about our project. First and foremost, we do not, in any way, take the folk understanding of time to be evidence for a particular picture of reality. Nor are we taking intuitions about time as evidence that time is thus and so.[[9]](#footnote-9) At most, we take folk intuitions to provide partial evidence about the content of the folk concept, or concepts, of time.

Second, we are not interested in criticising science using a folk concept. Thus, we are not offering anything like the following argument: our best physical theories imply that there is nothing that satisfies the folk concept of time; if the folk concept of time is unsatisfied then there is no such thing as agency; there clearly is agency, and so our best physical theories are wrong. We don't endorse this argument and we don't endorse the idea that folk notions of time might provide a basis for rejecting a physical theory. To put the point in more general terms, we are not engaged in *first philosophy* (the idea, roughly, that philosophy comes first, and science after, thereby enabling criticisms of scientific theory on purely philosophical grounds).

Third, while we are not interested in constraining science with the folk concept, we are not willing to give physics a free ride either. We don't believe that one should uncritically accept any interpretation of a physical theory, even one provided by a physicist who is engaged in interpreting their own theory. We maintain that the project of interpreting a scientific theory is a substantive and often philosophical project, and in the process of working out what a scientific theory tells us about reality, philosophy can often play a useful role. Insofar as we appear to be criticising a scientific theory, we take ourselves to be criticising a particular, philosophically laden interpretation of that theory.

Fourth, we are not presuming that there is a single folk concept of time. Nor are we assuming that the folk concept of time is any way in particular. Nor are we willing to simply introspect on our concepts and just go with whatever seems right to us, using it as a proxy for what the folk (tacitly) believe about time. The content of the folk concept is something we have to figure out, and it is not something that can be determined by three philosophers introspecting on their own concepts. We are very much open to the idea that there are many folk concepts of time that vary from person to person, and that may be messy, indistinct and incomplete.

Finally, we are not presuming that there is a sharp distinction between folk and scientific concepts of time. It may be that these concepts overlap in various ways. We are also not assuming that these are the only concepts of time. Metaphysics, history, economics, literature and more may all work with different notions of time. It may even be that, within science itself, there are multiple notions of time at work.

**1.5. Methodology**

In line with our rejection of first philosophy, our methodology in this book is broadly naturalistic in flavour. Obviously, this means that we take science seriously and as a touchstone for any metaphysical investigation. We also carry this naturalistic approach through to the conceptual analysis needed to get a grip on the folk concept of time.

The standard methodology of conceptual analysis is roughly conceptual analysis on the Canberra plan.[[10]](#footnote-10) It involves identifying a range of platitudes about the concept of interest---in this case, time---and then using those platitudes as a basis for analysing that concept. So, for instance, in order to provide a conceptual analysis of *pain* we might identify a range of folk platitudes about pain. We then systematise these and, at the end, come up with a list of necessary and sufficient conditions for something to be pain. That is our candidate conceptual analysis. Then we look to the world to see what, if anything, satisfies that analysis; if something does, then that thing is pain.

In the last twenty years or so, we have seen the rise of experimental philosophy as an alternative to conceptual analysis on the Canberra plan. Rather than philosophers sitting in their offices, gathering folk platitudes via introspection (or maybe asking their friends) and then regimenting them with a theory, the suggestion is that we should find ways to experimentally probe the folk in order to reveal the concepts that they use. The early success of experimental philosophy was simultaneously the introduction of a new method of conceptual analysis and a criticism of the old. We now have good evidence coming from experimental philosophy that there is substantial cross-cultural and gendered variation in the folk concepts that have been traditionally subject to philosophical analysis.[[11]](#footnote-11) Given this variation, we must be very careful about generalising any Canberra-plan style analysis of a concept beyond the cultural milieu in which the philosophers putting together the analysis are situated.[[12]](#footnote-12)

Our own exploration of the folk concept of time is empirical in nature. We do not analyse the folk concept of time by starting with claims that are (perceived to be) platitudes about time and then regimenting them into an analysis. Rather, we draw on a series of studies performed by one of the authors (Kristie Miller, and her team at Sydney) that seek to examine the structure of folk temporal concepts. These studies are informed by the platitudes that are the bread and butter of traditional conceptual analyses, and by the metaphysical theories of time that philosophers have developed. After all, empirical work requires hypotheses, and we use what philosophers have said about time to generate some. The studies are survey-based, and involve presenting participants with vignettes about various ways the world could be. Agreement is then sought about whether time exists in the relevant situations. The idea is to try and find cases in which participants will generally agree that time exists, and cases in which they will generally disagree that this is so. We can then use the pattern of agreement and disagreement to test various hypotheses about the content of any folk temporal concepts.

Over the course of the next three chapters, we will describe the outcome of this empirical work. However, it is worth emphasising that we don't attempt to present a conceptual analysis of the folk concept (or concepts) of time on the basis of these results. That is, we won’t be presenting a set of necessary and sufficient conditions for something to fall under one (or more) folk concepts of time. That is an important, and large, task, but one that outstrips the resources we have. Many more studies would be needed to allow us to generate such an analysis, even assuming such an analysis were possible (something which we consider in Chapter Two).

**1.5. Overview**

Having said a bit about why we are focusing on the folk concept(s) of time, and a bit about our methodology, we are now in a position to give a broad overview of the book. Our central claim is that time, in the folk sense, might not exist. The relevant ‘might’ is an epistemic might: the non-existence of time is compatible with what we know about the world. But, to be clear, we are not arguing for the claim that time in the folk sense does not exist, nor for the claim that this is a metaphysical possibility. Our claim is more might-y.

The three parts of the book are devoted to repudiating the three reasons why one might think that time must exist. We take these to be that: (i) there are no discoveries we could make about the world that would lead people to judge that time does not exist; (ii) discoveries that would lead people to judge that time does not exist are incompatible with what we know about the world from science and (iii) time is required for agency.

Part One takes up the challenge of exploring our folk concept (or concepts) of time via empirical investigation. Because we recognise that many readers will be keen to hear the upshot of the empirical work conducted, but may be less interested in the precise details of that work, we present the results of the work straight away, in Chapter Two. There we reflect on what these empirical results tell us about the conditions under which our folk concept of time might be satisfied. We provide evidence against the immunity of folk concepts of time to error. We show that there are a range of discoveries about the world that would lead people to judge that time does not exist. We briefly consider the idea that the folk would continue to say that time exists, despite making the kinds of discoveries that we identify in Part One. We suggest that this is an empirical bet about the world, and one that we don’t have evidence for (and some evidence against). Still, we recognise that such bets might well pan out, and thus concede that everything we say is open to refutation via future empirical work. Such is the nature of empirical hypotheses.

The next two chapters are given over to laying out, in detail, the empirical methodology used (Chapter Three), and the nature of the studies conducted (Chapter Four). These chapters are optional chapters for those who want a more detailed picture of the empirical work. In the spirit of a choose-your-own-adventure novel, the reader can skip these empirical chapters, and proceed straight to Part Two of the book, should they wish to do so.

In Part Two, we turn to recent developments in physics. We argue that the kinds of discoveries that would lead folk to deny that time exists may be suggested by our current physics. We base this argument on work in quantum gravity. A number of approaches to quantum gravity suggest that spacetime does not exist, and that the world has the kind of structure that would undermine the folk concept of time. We formulate this as the quick argument for timelessness, which seeks to establish the epistemic possibility of timelessness in the face of scientific knowledge. The quick argument for timelessness faces an immediate ‘emergence challenge’. The challenge, in brief, is that spacetime is expected to be an emergent phenomenon. If spacetime is emergent then the necessary conditions needed for time to exist are plausibly in place and so it becomes plausible, once more, that the discoveries that would undermine the folk concept of time are at odds with what we know about the world.[[13]](#footnote-13)

In Chapter Six we provide a response to this ‘emergence challenge’. We argue against the idea that spacetime has to be an emergent phenomenon on metaphysical grounds. Roughly put, the problem is that we lack a viable metaphysics of spacetime emergence. We defend this claim by considering a range of different metaphysical conceptions of spacetime emergence, including accounts based on mereological composition and material constitution, grounding, supervenience and functionalism. In each case we argue that the metaphysical relations used to underwrite the emergence of spacetime either fail to explain how spacetime emerges, or presuppose spatial and temporal notions and so are unfit to connect a non-spatiotemporal reality with a spatiotemporal one.

In Chapter Seven we consider a second tranche of argument that threatens to trump our response to the emergence challenge. The argument is based on a certain problem for theories of quantum gravity: the problem of empirical coherence. The basic thought is that spacetime *must* be emergent for the approaches to quantum gravity that we consider to be open to empirical confirmation and disconfirmation. This is so even if there is no good metaphysics of this style of emergence currently available.

We argue, on the contrary, that the emergence of spacetime is not strictly required to solve the problem of empirical coherence, and sketch a view on which even though spacetime does not exist, the problem of empirical coherence is solved. We note, however, that eliminativists about spacetime nevertheless face a second problem related to observation more generally---called the observation problem---that still needs to be addressed in order to put the emergence challenge to rest.

In the final chapter of Part Two, Chapter Eight, we address the observation problem by outlining an account of causation that is compatible with eliminativism about space-time. We argue, first, that causation can exist even if time does not. Second, we argue that a counterfactual theory of causation can be made compatible with a view on which spacetime fails to emerge. We thus conclude against the emergence challenge and in favour of the quick argument for timelessness. The loss of time in the folk sense remains compatible with what we know from science.

In Part Three of the book, we turn to agency. Our aim is to clarify and defuse the threat to agency that is posed by the loss of time. As we set things up, *temporal error theory* is a view that is analogous to moral error theories. Moral error theories deny the objective reality of moral facts, and, on the basis of this, deny that any moral claims are true. Temporal error theory, then, is the view that temporal thought and discourse is truth apt, and is false (or at least, is not true). In Chapter Nine we argue that temporal error theory is vindicated if our folk concepts of time are not satisfied.

In Chapter Ten, we argue that there is a complex relationship between agentive thought and temporal error theory. We distinguish two versions of temporal error theory: temporal fictionalism and temporal eliminativism. We begin by arguing that temporal eliminativism appears deeply unattractive, and that this appears to militate in favour of temporal fictionalism; the view that we have reason to act as though our temporal thought and talk is true. We then consider whether both temporal eliminativism and temporal fictionalism are in some good sense self-undermining. We suggest that they are if a strong connection between temporal thought and agentive thought is assumed: namely, that if our temporal thoughts are false then so are our agentive thoughts.

In the final chapter, we take up the task of arguing for agentive realism. There, we maintain that the sort of causal structure identified in Chapter Eight can do the job of supporting agency in the absence of time. After explicating this view, we argue that because agentive realism is vindicated, we can make sense of the idea that we can choose to engage in a temporal fiction. Ultimately, we argue that if time does not exist, then we should be temporal fictionalists and agentive realists. This is why the loss of time presents no real threat to us. Our agentive practices remain in good standing since (most of) our agentive thoughts are true (even though our temporal thoughts are false). We have no reason to abandon these practices, or to view them as in some way in error. Granted, our temporal thoughts are not true. Nonetheless, we should continue to engage in our false temporal talk because it is useful in a host of ways. Hence, our temporal practices based around such thought remain as they are.

All of this starts with looking at the folk concept of time. And so, it is to this task that we now turn.

1. A concept employed by non-philosophers. [↑](#footnote-ref-1)
2. Of course, we recognise that the distinction between scientific and folk concepts of time is somewhat artificial. The scientific concept is surely at least in part influenced by the folk concept, in that the folk concept guides theorising about what sort of thing in the world is even a candidate to answer to the scientific concept. Scientists look for time in certain places, and not others, because, at least at the beginning of investigation, they use the folk concept of time to determine what sort of thing they are attempting to locate. The converse is also the case. The scientific concept is likely to influence the folk concept (and, we suspect, already has, since the rise of relativity). One of the tasks we set ourselves in this book is to say something about the content of the folk concept. [↑](#footnote-ref-2)
3. To be clear, we are not saying that colour plays no important role in the lives of the folk. Clearly, there are a great many colour-based practices about which we care deeply. Practices like art, design, symbolism, advertising and the like. The point, rather, is that all of these practices can be scaffolded by the experiences alone. The reality of colour, as we conceptualise it at an everyday level, is not necessary for those practices to be in good standing. [↑](#footnote-ref-3)
4. Suppose we manage to recover our experiences intact, despite recognising that time in the folk sense doesn't exist. We might say that all is well, because we have the appearance of agency even though no one really has it. But what is the appearance of agency? Presumably, this would be something like the following: it seems as though one can exercise one's agency when, in fact, one cannot. So it seems as though one can act now to bring about an outcome in the future when, in fact, this is false, because the world does not answer to the sense of time that underwrites the related notion of 'future'. The mere appearance of agency is all but useless, we contend. Insofar as one desires agency, one does not desire for it to appear as if one can make choices, knowing full well that one cannot. One desires to *really be able* to make choices. So while colour experience in the absence of real colours can underpin practices of colour discrimination, design, preference and so on; the experience of agency cannot underpin agency in the absence of real agentive outcomes. [↑](#footnote-ref-4)
5. Setting aside recherché cases of backwards time travel. Since there is, as a matter of fact, no such time travel (granting that it is physically and logically possible), planning is, in fact, always for the future. [↑](#footnote-ref-5)
6. Perhaps there can be non-temporal notions of agency. That is something we need to think about very carefully. The point, however, is that the everyday notion of agency, the one that is associated with planning behaviour, appears to be tightly connected to our everyday thinking about time. We can frame the matter in terms of a conceptual web. At the centre of the web, or close to the centre is time. Agency and morality bear substantial connections to time, but are less central to the web. When we lose time, we must refigure those concepts in the web that are connected to the time concept but are more peripheral, or else give up on those concepts as well. [↑](#footnote-ref-6)
7. But such a strong conclusion is not strictly needed. Even if the right thing to say is that we remain agents but can't exercise our agency in any meaningful way, that would be a substantial blow. [↑](#footnote-ref-7)
8. We recognise the possibility that people won’t in fact responding in the ways they say they will, and thus that certain discoveries won’t lead to widespread abandonment of the folk concept of time. We flag this as an area for further empirical work, and proceed under the assumption that things won’t work out this way. [↑](#footnote-ref-8)
9. Perhaps there could be some role for folk intuitions about time in choosing between empirically consistent theories: namely we should choose the theory that best accords with the folk concept of time. We (collectively) are not even sure this is an appropriate use of such intuitions and we won’t appeal to such considerations in this book. [↑](#footnote-ref-9)
10. See Braddon-Mitchell and Nola (2008) for discussion of this approach. [↑](#footnote-ref-10)
11. For instance see Weinberg, Nichols and Stich 2001), Machery, Mallon, Nichols and Stich 2004, Buckwalter and Stich 2014 and Friesdorf, Conway and Gawronski (2015). The extent to which these differences exist is controversial, as a number of such studies have failed to replicate. See for instance Nagel, San Juan and Mar (2013), Kim & Yuan 2015) and Adleberg, Thompson and Nahmias (2015). In addition to the failures of replication, there has also be positive evidence for some cross-cultural uniformity at least as regards certain intuitions (see Machery, Stich, Rose, Chatterjee, Karasawa, Struchiner, Sirker, Usui and Hashimoto 2015). [↑](#footnote-ref-11)
12. None of this is to say that we do experimental philosophy in a vacuum. Any hypotheses about the content of a folk concept are surely informed by *something like* the Canberra Plan approach. [↑](#footnote-ref-12)
13. That still leaves open that some of our folk concepts might nonetheless go unsatisfied. If, for instance, our folk concepts were largely A-theoretic in nature, but no actual A-series exists, then this would be the case. This, however, is a threat to the folk concept of time that is not new, and hence is not the threat with which this book concerns itself. It is, however, a threat that our work on the folk concept of time can help to evaluate, since that work will shed light on whether our folk concept of time is indeed A-theoretic. [↑](#footnote-ref-13)