**Bias Towards the Future**

All else being equal, most of us typically prefer to have positive experiences in the future rather than the past and negative experiences in the past rather than the future. Recent empirical evidence tends not only to support the idea that people have these preferences, but further, that people tend to prefer more painful experiences in their past rather than fewer in their future (and *mutatis mutandis* for pleasant experiences). Are such preferences rationally permissible, or are they, as time-neutralists contend, rationally impermissible? And what is it that grounds their having the normative status that they do have? We consider two sorts of arguments regarding the normative status of future-biased preferences. The first appeals to the supposed arbitrariness of these preferences, and the second appeals to their upshot. We evaluate these arguments in light of the recent empirical research on future-bias.

1. **Introduction**

All else being equal, most of us typically prefer to have positive experiences in the future rather than the past and negative experiences in the past rather than the future. Or so, at any rate, many philosophers have claimed. But the questions of whether and to what extent people are in fact biased towards the future, and whether such preferences are rational, have only recently become topics of sustained philosophical and empirical interest.

Attempts to describe and explain this apparent asymmetry in our preferences regarding past and future events go back at least to Hume, who offers a brief but penetrating discussion in the *Treatise of Human Nature* (Hume 1739, secs. 2.3.7.6-9). But in the last few years, there has been a flurry of empirical work focused on determining the scope, strength, and psychological sources of future-bias. Recent work suggests that people really do prefer positive hedonic events—those that involve pleasure—to be located in the future rather than the past, and prefer negative hedonic events—those that involve pain—to be located in the past rather than the future (Caruso, Gilbert & Wilson 2008; Greene, Latham, Miller & Norton 2021a). These studies also investigate whether future-biased preferences extend to non-hedonic events (Greene et al. 2021a) and to events concerning other individuals (Caruso et al. 2008; Greene et al. 2021a). Other work focuses on understanding the strength of future-biased preferences. These studies attempt to determine whether future-bias functions as a tiebreaker between equally intrinsically valuable states of affairs or whether it can lead us to prefer experiencing more pain in the past to less pain in the future (Lee, Hoerl, Burns, Fernandes, O’Connor & McCormack 2020; Greene, Latham, Miller & Norton 2021b) and less pleasure in the future to more pleasure in the past (Lee et al. 2020; Greene, Latham, Miller & Norton forthcoming). Still other work focuses on the psychological mechanisms that give rise to future-bias. Some studies provide a developmental account of these preferences (Lee et al. 2020). Others focus on determining whether these preferences are explained by the causal inaccessibility of the past (Latham, Miller, Norton & Tarsney 2021), or by beliefs about the metaphysics of time (Latham, Miller, Tarsney & Tierney 2021a), or by our temporal phenomenology (Latham, Miller, Tarsney & Tierney 2021b).[[1]](#footnote-1)

In addition to work that addresses descriptive questions about the nature of future-bias, there has been significant debate regarding its rationality (Parfit 1984; Hare 2007, 2013; Brink 2011; Dougherty 2011, 2015; Greene & Sullivan 2015; Sullivan 2018; Dorsey 2018; Kauppinen 2018).[[2]](#footnote-2) There are (at least) two types of argument against the rationality of future-bias. The first focuses on its *arbitrariness*. If our future-biased preferences are sensitive to normatively irrelevant factors, then this would count against their rationality. However, even if future-bias is arbitrary, that may not seem to matter if it is practically irrelevant (i.e., if future-bias has no effect on the decisions people make). Thus, the second type of argument focuses on the *upshots* of future-bias. For example, it has been argued that future-bias leads agents to make sequences of choices that leave them certainly worse off than available alternatives. Thus, the time-neutralist case against future-bias typically *combines* considerations of both arbitrariness and upshot: according to many time-neutralists, future-biased preferences lead to negative upshots because of their arbitrariness. Clearly, much of the empirical work on the nature of future-bias is relevant to assessing these arguments.

In this paper, we explore a variety of arguments regarding the rationality of future-bias that focus on its arbitrariness (Section 1) and upshots (Section 2). Then, we consider recent empirical work on the nature of future-bias and how it impacts these arguments (Section 3).

**1. Arbitrariness of Future-Bias**

Arbitrariness arguments are modelled on similar arguments against another kind of time-bias: *near-bias.* Typically, ‘near-bias’ refers to prospective near-bias: the preference for positive events to be in the nearer future and negative events to be in the farther future. Philosophers have often claimed that near-biased agents are irrational because their preferences are arbitrary. Sidgwick (1884, chapter 13) and Rawls (1971, 293–294), for instance, argue that the mere fact that one time is closer to the present than another is no reason to care more about one’s wellbeing at that time.[[3]](#footnote-3) If this is true of near-bias, then it seems equally true of future-bias (Parfit, 1984; Brink 2010; Dougherty, 2011; Greene & Sullivan, 2015). It is arbitrary, argue time-neutralists, to care less about one’s wellbeing at a time merely because it is in the past.

In response, defenders of future-bias appeal to the *temporal metaphysics explanation* (Prior 1959; Schlesinger 1976; Craig 1999; Pearson 2018) to show that there is some normatively relevant difference between past and future, and hence between the wellbeing of past and future person-stages, and that our preferences are sensitive to that feature, which both explains and makes rationally permissible our having those preferences. The temporal metaphysics explanation proposes that our beliefs about and/or experience of time are what explain and justify our future-biased preferences. On this view, such preferences are explained either by our experience of the ‘flow of time’ (the *passage phenomenology hypothesis*) or by our belief in objective, ‘robust’ temporal passage (*the passage belief hypothesis*).[[4]](#footnote-4) If our experience of robust temporal passage is veridical, and our belief in it correct, then perhaps there is an intuitive justification for future-bias: past events are ‘over and done with’, and receding from the present, while future events are still due to become present. It has proven notoriously difficult, however, to turn this intuition into a clear argument for the rationality of future-bias.

Time-neutralists, in contrast, appeal to evolutionary considerations to explain why we tend to care less about the wellbeing of past times. A prominent example is *the causal inaccessibility explanation* (Horwich 1987, 194­–196; Maclaurin & Dyke 2002; Suhler & Callender 2012; Greene & Sullivan 2015, 967–969). According to this explanation, people have an evolved heuristic to care less about the past because there is nothing they can do to causally affect it.

The second kind of arbitrariness argument appeals to the patterns of future-biased preferences. Call these *preference-pattern arguments.* Time-neutralists appeal to preference-pattern arguments in an attempt show that our future-biased preferences are sensitive to normatively irrelevant factors, and that this gives us reason to think that future-bias is rationally impermissible. Here, we will focus on three such arguments.

The first preference-pattern argument is *the argument from first/third-person asymmetry*. This argument starts by claiming that people exhibit future-biased preferences with respect to their own experiences but not the experiences of others. For example, consider a painful operation. It has seemed, to many, that most of us will prefer that *our own* painful operation be located in the past, rather than the future. This is to have future-biased *first-person* preferences. It has also seemed, to many, that we will have no preference regarding where in time someone else (even someone we care about) undergoes *their* painful operation (Parfit 1984, 181; Hare 2008, 2013, 509–10; Brink 2011, 378–9; Greene & Sullivan 2015, 968; Dougherty 2015, 3). This is to have time-neutral *third-person* preferences. So, whether our preferences exhibit future-bias depends on *whose* experiences we are considering. But time-neutralists argue that this should make no difference: if one is future-biased with respect to one’s own experiences, then one should be future-biased with respect to the experiences of those one cares about (and vice versa). This suggests that either our first- or third-person preferences are irrational (Brink 2011, 378–9; Dougherty 2015, 3). Moreover, since we’d expect our third-person preferences to be more dispassionate, we have reason to think that it is our future-biased first-person preferences that are irrational (Greene & Sullivan 2015, 968).

The second preference-pattern argument is *the argument from hedonic/non-hedonic asymmetry*. This argument claims that people exhibit future-biased preferences for hedonic events but not for non-hedonic events (Brink 2011, 378; Hare 2013; Dougherty 2015, 3, fn. 4). ‘Hedonic events’ in this context refers to good or bad *experiences*, whereas ‘non-hedonic events’ refers to good or bad events that are not experiences.[[5]](#footnote-5) So, for instance, the event of having a paper published in a good journal is a non-hedonic event; the experience of pleasure upon learning that one’s paper has been published in a good journal is a hedonic event. The hedonic/non-hedonic difference, argue time-neutralists, should make no difference to the justifiability of future-bias (Brink 2011, 378; Dougherty 2015, 3, fn. 4). Hence, by reasoning similar to that just articulated, we have reason to think that our future-biased hedonic preferences are irrational.

The last preference-pattern argument is *the argument from* *negative/positive asymmetry*. Greene et al. (2021b) found that people are more likely to have future-biased preferences when considering negative hedonic events than when considering positive hedonic events. They suggest that time-neutralists can argue, just as they do with the first/third-person and hedonic/non-hedonic asymmetries, that the valence of events should make no difference to the justifiability of future-bias. If we assume that negative events are associated with greater emotional reactivity, then we have reason to think that it is our reactions to negative events that are irrational (more on this in Section 3).

**2. Practical Upshots of Future-Bias**

It might be thought that future-bias has no practical upshots—that it makes no difference to practical reasoning, because we can’t change the past. This marks a key difference between future-bias and (prospective) near-bias: it is obvious that we can trade between the near and distant future, but it is not obvious that we can trade between the future and the past (Moller 2002, 77). Indeed, this is one explanation for why philosophers have historically focused attention on arguments against the rationality of near-bias without considering whether such arguments would also count against the rationality of future-bias (Greene & Sullivan 2015, 950–3).

More recently, arguments against the rationality of future-bias have emerged that tie future-bias to various practical upshots. The first is from Dougherty (2011), who focuses on the interaction of future-bias and risk-aversion. Risk-averse agents who are also future-biased, Dougherty argues, can be turned into ‘pain pumps’, making a sequence of choices that will certainly leave them with more pain at some time, no less pain at any time, and no other compensating benefit.

In Dougherty’s thought experiment, a person knows that they will face either *i*) a four-hour operation on Tuesday and a one-hour operation on Thursday, or *ii*) a three-hour operation on Thursday. They will need to remain awake during the operations and each minute of each operation will feature the same amount of intense pain. Next, the person is offered a ‘help-early’ pill that decreases the length of pain on Thursday by 29 minutes if (*i*), and increases the length of pain on Thursday by 31 minutes if (*ii*). A risk-averse person accepts this pill because they are willing to increase their expected pain by one minute to reduce the severity of the worst possibility. Finally, the person wakes on Wednesday with temporary amnesia. They are offered a ‘help-late’ pill that increases the length of pain on Thursday by 30 minutes if (*i*), and decreases the length of pain on Thursday by 30 minutes if (*ii*). A future-biased risk-averse person gladly accepts this pill because it reduces the severity of the worst outcome of *future pain* for free: their risk is reduced while their expected future pain remains the same.

But by taking both pills, the agent simply guarantees themself one more minute of pain on Thursday, for no compensating benefit. Dougherty concludes that either their risk-aversion or future-bias is irrational. Dougherty (2011, 536) favors the conclusion that future-bias is irrational, and he points out that rejecting the rational permissibility of risk-aversion would be unintuitive, as it would, for example, mean that people are irrational to buy insurance from companies that expect to make a profit.[[6]](#footnote-6)

Another attempt to tie future-bias to practical upshots is undertaken by Greene & Sullivan (2015), who focus on the interaction of future-bias and regret-aversion. The first upshot they call the *scheduling problem*. The following is a version of their thought experiment.

Billy and Sally are both excited to go on the roller-coaster, but they can’t go at the same time. If Billy is future-biased and chooses to ride first, then he knows he will regret his choice after the ride is finished, in the sense that he will prefer that he had chosen differently.[[7]](#footnote-7) If he had chosen differently, then he would be like Sally in having future, instead of merely past, pleasurable roller-coaster experiences. (By definition, a future-biased agent prefers future pleasure to past pleasure.) Meanwhile, Billy knows that if he chooses to ride second, he will *never* regret his choice.[[8]](#footnote-8) If he chooses to ride second, then after his ride is complete both he and Sally will be in the equivalent situation of having only past pleasurable roller-coaster experiences, and thus he will not prefer that he had chosen differently. Billy therefore desires to go second.

Billy’s motivation to avoid certain regret, when combined with his future-bias, generates his desire to go second. And while avoiding certain regret is generally rational behavior, Billy’s scheduling preferences are, arguably, not. If that is true, then Billy’s future-bias is irrational.

Billy is also subject to the *meager returns problem*. Imagine that Billy is *absolutely future-biased*: he doesn’t care about past pleasures at all, because they’re ‘over and done with’.[[9]](#footnote-9) Billy can either eat a cookie immediately or he can wait to have the cookie an hour from now (it must be consumed within an hour). Due to the scheduling problem, Billy, of course, would choose to wait. But Billy might also wait for *slightly-less-than-one cookie* in an hour. After all, if he has the cookie immediately, then as soon as it is consumed he will regret his choice. Meanwhile, if he chooses to wait, then Billy will never regret his choice: after the slightly-less-than-one cookie is consumed, both choices involve merely past pleasurable experiences, which Billy doesn’t care about. Thus, absolutely future-biased agents who prefer to avoid regret will sometimes, like Billy, be motivated to *wait longer for a less pleasurable experience*. Something seems to be awry either in their motivation to avoid regret, or in the thing that is generating their regret patterns, namely, future-bias.[[10]](#footnote-10)

A third way in which future-bias can make a difference to practical reasoning is via a commitment to *evidential decision theory*. Tarsney (2017) presents a Newcomb-like decision situation where the agent’s choice provides evidence that negative hedonic events have, or have not, occurred in their past. Future-biased evidential decision theorists think that this evidence is irrelevant, whereas time-neutral ones think that it is relevant. Thus, with a proper setup, future-biased and time-neutral evidential decision theorists make difference choices. Tarsney (2017, 752, fn. 1) also points out that for these kinds of cases the practical relevance of future-bias for causal decision theorists merely requires that they view retrocausation as epistemically possible.

Two other practical upshots of future-bias bear mentioning. *Utility conditionalisation* is the principle that one is rationally required not to change one’s ultimate preferences over time (Hedden 2015, 47). *Preference reflection* is the principle that one is rationally required to now prefer *A* to *B* if one believes that one will later prefer *A* to *B* (Hedden 2015, 60). Future-biased agents violate both principles, and as Hedden (2015, 79–84) shows, violations of either principle lead to predictable exploitability over time.

**3 What Empirical Work Reveals about Normative Theorising**

Let’s start with empirical work relevant to the practical upshots of future-bias. Notice that all the arguments discussed in Section 2 require future-bias to serve as more than a tiebreaker. If future-bias is a mere tiebreaker between equally intrinsically valuable states of affairs, then it will have no objectionable practical upshots. Whether future-bias is more than a tiebreaker is something that empirical work can help determine.

Initial results addressing this question have been mixed. Lee et al. (2020) asked both children and adults whether they would prefer to be someone who had a pleasurable or painful event in the past or someone who will have that same experience in the future. They found that when the event in question is equally painful or pleasurable, people prefer to be someone with pain in the past and pleasure in the future. However, when the amount of pleasure or pain in the past would be greater, this preference was abandoned by a majority of children, and roughly half of adult participants. This suggests that for many people hedonic future-bias is a mere tiebreaker.

In contrast, Greene et al. (2021b) asked people whether they would prefer to learn that they, or someone else, will have one positive or negative event in the future or 10 positive or negative events in the past. They found that a majority of participants would prefer ten negative events in the past to one negative event in the future. However, a majority of participants would prefer ten positive past events to one positive future event. A follow-up study by Greene et al. (forthcoming) found that a majority of participants would prefer one positive future event to two positive past events.

There are two possible explanations for these differences. First, it could be that asking people who they would prefer to be (as in Lee et al.), as opposed to what experiences they would prefer to have (as in Greene et al.), tends to result in people taking a more third-personal, and thus time-neutral, perspective. After all, when we ask people to compare lives with more, or less, pain, they will surely prefer the life with less pain (all else being equal).

A second possible explanation appeals to autobiographical memory. Lee et al. (2020) leave open the possibility that the individuals described in the vignette remember the relevant events, while in the vignettes from Greene et al. (2021b; forthcoming), the individual is said to temporarily fail to remember whether the event occurred. Since the recollection of a memory can itself be a positive or negative hedonic event, the presence of such memories could play a role in mitigating apparently future-biased preferences. If the pleasure or pain of recalling a memory is greater than that associated with some future event, then it makes sense to prefer more immediate pleasure in the past to less in the future, and to prefer less immediate pain in the past to more in the future, since that might still result in more overall pleasure and less overall pain in the future (taking into account the pleasure/pain of remembering). If this is right, then the results of these studies perhaps suggest that, controlling for the hedonic quality of autobiographical memories, future-bias is not a mere tiebreaker. This bolsters one premise in the arguments of Dougherty (2011), Greene & Sullivan (2015), and Tarsney (2017)—that is, our future-biased preferences are strong enough that, in combination with other preference features (risk-aversion, regret-aversion, evidential decision theory), they *could* make a substantial difference to our choices.

Let’s now consider how recent empirical findings inform the arguments described in Section 1, which concern whether future-bias is arbitrary. First, recall the two categories of psychological explanation for future-bias we described in Section 2: the temporal metaphysics explanation and the causal inaccessibility explanation. Latham et al. (2021) found that future-bias is reduced, but not eliminated, in situations in which people can causally influence the past. This suggests that causal inaccessibility provides at least a partial explanation of future-bias. Notably, this explanation is consistent with evidence that shows that people tend to experience more intense emotions during anticipation than during retrospection of the same experience (Caruso et al. 2008; D’Argembeau & Van der Linden 2004; Van Boven & Ashworth 2007), and that our emotional *reactions* to consideration of past experiences are less extreme than our reactions to consideration of future experiences (Van Boven, Kane & McGraw 2009). The finding of Latham et al. (2021) is also consistent with research from Greene, Latham, Miller & Norton (2022), who found that when participants are more inclined to think of themselves as ‘placing’ events in the past/future they become less future-biased. Greene et al. (2022) suggest that taking an agentive perspective encourages people to have time-neutral preferences.

Next, consider the temporal metaphysics explanation, in both its belief-focused and phenomenology-focused variants. Empirical work here is not so clear-cut. No study has found that beliefs about the metaphysics of time or temporal phenomenology *alone* contribute to future-bias. While Latham et al. (2021a) found that people showed less future-bias when presented with a description of our world as lacking rather than containing robust temporal passage, people’s actual beliefs about whether time passes had no discernible effect on future-bias. They hypothesised that exposure to ‘moving time’/‘moving ego’ language might tend to elicit a certain sort of temporal phenomenology that contributes to future-bias, which would support the temporal phenomenology hypothesis. But in a follow-up study (Latham et al. 2021b), they found no association between self-reported moving time or moving ego phenomenology and future-bias.

Based on this finding, Latham et al. suggest that a combination of belief and phenomenology—in particular, passage phenomenology that is taken as veridical—may contribute to future-bias. If this is right, then the rationality of future-bias will depend at least partly on whether this phenomenology is in fact veridical (e.g., if the phenomenology represents robust temporal passage, the rationality of future-bias will depend at least partly on whether time does in fact robustly pass), or on whether we are justified in taking it for veridical. However, even if time robustly passes and passage phenomenology contributes to future-bias, it is controversial whether that would help to rationally *justify* future-bias. As several authors have pointed out, the mere fact that future events are ‘approaching us’ in time, and past events ‘receding’ from us, does not provide an obvious justification for future-bias (Yehezkel 2014). Moreover, it has been argued that an event’s objective location does not matter to the rational status of future-bias. Instead, what matters is whether the event is *subjectively* past or future. Since events can be subjectively past or future even if there is no robust passage, the thought goes, even if future-bias is rationally justified, it is not the latter that justifies its rationality (Miller 2021a; 2021b).

Next, consider the argument from first/third-person asymmetry.

Early work suggested that while people prefer their own pleasures to be in the future rather than the past, and their own pains to be in the past rather than the future, they have time-neutral preferences regarding the experiences of others. Caruso et al. (2008), for instance, found that people demanded more compensation for boring work—a negative hedonic event—to be completed in the future than for the same work completed in the past.[[11]](#footnote-11) However, if the boring work either was or will be completed by a third person, people recommended the same compensation either way. This suggested that people’s third-person preferences are time-neutral.

However, Greene et al. (2021a) found conflicting results. They found that while future-bias is reduced in third-person conditions, a majority of participants still prefer a third person to receive their favourite meal (that is, the third person’s own favourite meal) in the future rather than in the past, and their least favourite meal in the past rather than the future. This suggests that people’s third-person preferences are future-biased. Follow-up work by Greene et al. (2021b; forthcoming) also found evidence of only a small reduction in future-bias, and no evidence that time-neutrality is the norm for third-person preferences.

Greene et al. (2021a) point out that their third-person conditions better encouraged perspective-taking than those of Caruso et al. (2008), and they suggest that the more people take on the perspective of the third person, the more inclined they will be to exhibit future-bias. This would also explain the greater future-bias in first-person conditions, on the assumption that first-person conditions are the most amenable for perspective-taking. This explanation, if correct, also fits nicely with the above explanation of the divergent results between Lee et al. (2020) and Greene et al. (2021b). It seems reasonable to think that people are inclined to take a more embedded temporal perspective when asked whether they prefer some event to be past or future, and inclined to take a less embedded perspective when asked to evaluate who they would rather be. If embedded perspective-taking contributes to future-biased preferences, then we would expect to find less future-bias in conditions that less strongly encourage embedded perspective-taking, and that is consistent with all the studies we have described so far.

If true, it remains unclear what implications this has for the normative status of future-bias. On the one hand, as Greene et al. (2021a) note, it is not obvious that people’s preference on behalf of a random third person are more rational than those formed on behalf of someone whose perspective they can adopt. Perhaps something similar should be said about the preferences we have when we take a fully embedded perspective, compared to those from a less embedded perspective. But that is less clear: the case can also be made that the unembedded perspective is the more rational one, on the hypothesis that unembedded perspectives are least likely to engage emotionally driven biases.

Next consider the argument from hedonic/non-hedonic asymmetry. Greene et al. (2021a) found a reduction in future-bias in non-hedonic conditions, but did not find that a majority of participants had time-neutral preferences regarding these events. Across their four non-hedonic conditions (first- and third-person; positive and negative valence), fewer than 25% of participants reported time-neutral preferences. This suggests that the empirical claim on which the argument from hedonic/non-hedonic asymmetry is founded may not be supported.

Finally, consider the argument from negative/positive asymmetry.As mentioned above, recent empirical work (Greene et al. 2021b) finds that people prefer to have negative hedonic events in the past rather than the future, even when the past events are *ten times* as bad. In contrast, people prefer ten positive hedonic events in the past to one positive hedonic event in the future. Thus, at least at a 10:1 ratio, people prefer what is best from a time-neutral perspective for positive events, but they prefer what is best from a future-biased perspective for negative events. This asymmetry may not be surprising. There is evidence that negative events are more salient and associated with more emotion compared to positive ones (e.g., Taylor 1991; Baumeister, Bratslavsky, Finkenauer & Vohs 2001). So insofar as future-bias is driven by our emotional responses to possible events, one would expect stronger future-bias with regard to negative events. If that is right, then the rationality of future-bias depends on whether this sort of sensitivity to emotion is a form (or symptom) of irrationality.

**4. Conclusion**

We close with some suggestions for future research. The first is empirical investigation of the effects of future-bias in combination with risk- or regret-aversion—whether and in what circumstances people can be induced to make (sequences of) choices that are certainly worse, from a time-neutral point of view, than available alternatives, as a result of future-bias combined with other common preference patterns.

Second, it would be useful to have more independent empirical tests of the proposed psychological explanations for future-bias (including, but not limited to, the causal inaccessibility, temporal belief, and temporal phenomenology hypotheses). That is, it will be helpful to find different ways of making the past choice-relevant and/or of measuring participants’ beliefs about/experience of time. It could also prove useful to develop ways of measuring participants’ attitudes and emotional reactions towards negative and positive hedonic events, as well as past and future hedonic events, in order to determine if, and how, these attitudes impact their preferences. Likewise, more research on descriptive questions about the actual content and patterns of our future-biased preferences would be valuable, especially on the first-person/third-person asymmetry, where existing studies have reached apparently conflicting conclusions.

Apart from these empirical questions, it would be useful to have a more complete accounting of the ways in which future-bias can have practical upshots (affecting our choices and not merely our preferences). Risk-aversion, regret-aversion, evidential decision theory, and the epistemic possibility of retrocausation each suffice to make future-bias choice-relevant, but this is unlikely to be a complete accounting. Under what conditions can we guarantee that future-bias will make no difference to an agent’s choices among available acts?

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1. Hoerl, McCormack and Fernandes (2022) is an excellent recent anthology that brings together a range of papers in this area. [↑](#footnote-ref-1)
2. Here too there is a notable historical precedent: the debate over the justifiability of our asymmetric attitudes toward post-mortem non-existence on the one hand (which many of us regard with dread or sadness) and pre-natal non-existence on the other (to which we are typically indifferent). This debate dates back to Lucretius, who held that the asymmetry is unjustified, and should be resolved by giving up our negative attitudes toward post-mortem non-existence. Though this attitudinal asymmetry between birth and death is closely related to the more general asymmetry between future and past, it also brings in a number of importantly distinct issues (e.g., whether it is metaphysically possible for a person to be born earlier than they in fact were), which we do not have space to discuss in this essay. For recent discussion and citations to this literature, see for instance Meier (2018) and Rabenberg (2021). [↑](#footnote-ref-2)
3. For discussion of Sidgwick and Rawls’ views on near bias, see Greene and Sullivan (2015, Section 2) and Greene (forthcoming, Section 1). [↑](#footnote-ref-3)
4. By ‘robust’ passage, we mean the sort of passage posited by the A-theory, on which there is an objective fact as to which time is present, and this changes as later times successively become present. For an overview of some views of this kind, see Zimmerman (2005). [↑](#footnote-ref-4)
5. See Hare (2013, 510). [↑](#footnote-ref-5)
6. Dougherty’s case requires agents to be risk-averse in relation to pain, where the pain experiences do not exhibit increasing marginal disutility. Risk-aversion with respect to money is standardly justified by the increasing marginal disutility of monetary losses. Thus, the rational permissibility of Dougherty’s form of risk-aversion cannot be established in the same way (Greene & Sullivan 2015, 955–6). [↑](#footnote-ref-6)
7. Greene & Sullivan use ‘regret’ to refer to the preference that one had done otherwise (2015, 957–8). [↑](#footnote-ref-7)
8. Billy is not near-biased. [↑](#footnote-ref-8)
9. For a defense of absolute future-bias, see Heathwood (2008, 56–7). See Greene & Sullivan (2015, 962–5) for discussion of the meager returns problem and non-absolutely future-biased agents. [↑](#footnote-ref-9)
10. Greene & Sullivan grant that people—especially adults—typically *do not* display these patterns of regret. But this is not an objection to the time-neutralist’s argument. Similarly, Dougherty suggests that most people probably adopt time-neutral ‘exchange rates’ when trading between hedonic and non-hedonic goods, but that observation does nothing to respond to his claim that time-biased exchange rates are irrational (2015, 7, fn. 12). [↑](#footnote-ref-10)
11. Dougherty (2015, 6–7) argues that such responses indicate that future-bias is causing participants to adopt “diachronically inconsistent exchange rates” between hedonic experiences (boring work) and non-hedonic goods (money). Dougherty argues that this inconsistency is both practically significant and irrational. [↑](#footnote-ref-11)