

# Future Bias and Regret

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## Abstract

Although the rationality of future bias figures crucially in various metaphysical and ethical arguments (Prior 1959; Parfit 1984; Fischer 2020), many philosophers have challenged future bias as being either arbitrarily motivated or irrational (Dougherty 2011; Suhler and Callender 2012; Greene and Sullivan 2015). In particular, Greene and Sullivan (2015) have claimed that future bias is irrational because it implicates two kinds of irrational planning behaviors in agents who seek to avoid regret. In this paper, I join others (Dorsey 2016; Tarsney 2017) in arguing against their claims, but for different reasons that highlight the relationship between the alleged irrational planning behaviors and certain features of regret that it shares with future bias. First, regret is dynamic, involving preferences that change over time and in inconsistent ways. Second, regret *comes in degrees*, meaning that we can rank our potential regrets. Because regret has these features, I explain why the future-biased agents in Greene and Sullivan's cases do not need to act in irrational ways to avoid regret.

**Keywords:** future bias; near bias; time bias; regret; temporal value asymmetry

# 1 Introduction

We are time biased.<sup>1</sup> This means that we care not only about what happens to us, but when such things happen too. Time-biased agents come in several kinds, but philosophers have paid most attention to two. Near-biased agents, on the one hand, have preferences for goods that will occur earlier in their future rather than later. All things being equal, for example, they would prefer to receive fifty dollars tomorrow morning rather than next week. Future-biased agents, on the other hand, have preferences for goods that are present or future rather than past. All things being equal, for instance, they would prefer to receive fifty dollars tomorrow than to have received it last week.

My examples may give the impression that time-biased agents have arbitrary preferences for future rather than past goods. Assuming fifty dollars will be worth tomorrow what it was worth last week, then preferring to receive the same money earlier rather than later, or in the near future than the distant past, might seem as arbitrary as preferring to receive the money inside rather than outside some building or to receive the money facing the East rather than the West. Either way, it will not make a difference to how much the money is worth and how we choose to use it. Given the apparent arbitrariness of time-biased preferences, many philosophers have presented arguments to show that time-biased preferences, especially near-biased preferences, are not only arbitrarily motivated, but irrational as well (Dougherty 2011; Suhler and Callender 2012; Greene and Sullivan 2015).<sup>2</sup> In particular, Preston Greene and Meghan Sullivan (2015) have argued that future bias is irrational because, in two kinds of cases, future-biased agents will behave in irrational ways in order to avoid certain regret.

Crucial to their argument is the premise that it is rationally permissible to avoid certain regret, where regret is understood by them as a preference for having done otherwise. However, this paper addresses two features of regret implicit in Greene and Sullivan's counterexamples that have not yet been made explicit but that undermine

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<sup>1</sup> For a broad overview and discussion of the philosophical literature on time bias, which includes both analytic and empirical work, see Greene, P., Latham, A. J., Miller, K., Norton, J., Tarsney, C., & Tierney, H. (2022). Bias towards the future. *Philosophy Compass* 17(8), 1-11.

<sup>2</sup> Radically, some philosophers think that some time-biased preferences are not rationally evaluable at all (Phillips 2021).

Greene and Sullivan's reasoning that, under certain circumstances, future-biased agents are irrational actors when they seek to avoid regret. This response to Greene and Sullivan's argument is based on two features of regret that, on the contrary, globally undermine rather than support their conclusion that future bias is irrational. The first feature is that regret can be either *permanent* or *temporary*, meaning that what is regrettable now may not be regrettable later or—as is often the case—what is not regrettable now may be regrettable later. The second feature is that regret comes in degrees. Because regret can be temporary, and because regret comes in degrees, Greene and Sullivan's crucial premise concerning the rational permissibility of regret is not only inaccurate, but it also cannot play its intended logical role in their argument that future-biased agents who permissibly seek to avoid regret will act in irrational ways. On the contrary, future-biased agents who seek to avoid regret can nevertheless act in ways that are rational, including the future-biased agents in Greene and Sullivan's counterexamples.

In the next section, I present Greene and Sullivan's argument based on their counterexamples. Next, I show and explain why the counterexamples fail to prove the irrationality of future bias based on the two aforementioned features of regret.

## 2 Against Future Bias

Greene and Sullivan's argument starts with two technical definitions.

**Future bias:** With respect to pleasure, an agent is future-biased iff for two exclusive experiences,  $E_1$  and  $E_2$ , where  $E_1$  is at least as pleasurable as  $E_2$ , the agent prefers  $E_2$  because it is a present or future pleasure rather than a past one (2015: 949).

**Regret:** A type of preference—namely, preferring that one had done otherwise (2015: 957-8).

In turn, the argument appeals to the following principle of practical reasoning.

**Weak No Regrets:** If an agent has full and accurate information about the effects of the options available to them, then it is rationally

permissible for them to avoid options they know they will regret in favor of ones they know they will never regret (2015: 958).

Let's say that an agent is being *regret averse* when they choose to avoid certain regret. Next, Greene and Sullivan claim that agents who are future biased and regret averse make plans in two irrational ways. To illustrate, they present two cases. Here's the first:

*Fine Dining:* Jack wins a free meal at a fancy French restaurant on Monday morning, and he must schedule the meal for a night sometime in the next week. Given its flexible schedule, every night is equally convenient for him, and there are no other considerations that would make the meal more enjoyable or more likely to occur on one night rather than another. Therefore, Jack schedules the meal for Monday night. . . . On Tuesday morning, Jack strongly prefers that his restaurant experience were in the future, rather than the past. And so he regrets scheduling the meal for the previous night (2015: 959).

Jack's planning is supposed to exemplify what Greene and Sullivan term the "scheduling problem:" in some cases, future-biased and regret-averse agents will postpone pleasurable experiences for reasons other than the properties intrinsic to the experience that make it pleasurable. If Jack is regret averse, then he will postpone his free meal for the last day because, otherwise, Jack will regret scheduling the meal for any other day. He will experience such regret because, the day after his meal, he will prefer the experience be in his future arising from his bias towards the future, and the experience could have been in his future had he scheduled it differently.

Further, Greene and Sullivan claim that such future-biased agents form plans in another irrational way. This time, it is the "meager returns problem:" in some cases, future-biased and regret-averse agents will trade better experiences for worse ones (2015: 961). Their case for that problem is this:

*Consider Billy:* Consider Billy, who is offered a choice between two cookies immediately or one cookie at some point in the future. It would seem that the rational choice is clear: Billy should choose to have two cookies now. But for future-biased agents the answer is not so simple . . . If Billy chooses to have two cookies now, then as

soon as the cookies are consumed Billy will prefer that he had chosen to have one cookie later, because that experience would still be in his future. . . Therefore, Billy can expect to regret choosing more cookies, and never regret choosing fewer cookies (2015: 961).

The reasoning behind the meager returns problem is structurally similar to the reasoning behind the scheduling problem. Once Billy schedules the two-cookie experience, he will come to regret the experience because he would prefer the experience to be in his future rather than past, which could be future had he chosen fewer cookies and thus the worse experience. Anticipating such regret, Billy is alleged to prefer the worse one-cookie experience over the two-cookie one.

Having illustrated the scheduling and meager returns problems, Greene and Sullivan summarize their argument for the irrationality of future bias as follows.

1. It is permissible to avoid certain regret.
2. If one is future biased and chooses to avoid certain regret, then one acts in ways that lead to the scheduling and meager returns problems.
3. It is irrational to act in such ways.
4. Therefore, future bias is irrational.

Critics have focused their objections against the first and third premises by questioning whether the planning problems are irrational after all, or whether avoiding certain regret is always rationally permissible (Dorsey 2016; Tarsney 2017). Although there is a sense in which my argument will similarly undermine the first premise, the difference in my position lies in an important subtlety, namely, that it is rationally permissible to avoid certain regret when that regret is *permanent*, but it is not always rationally permissible to avoid certain regret when that regret is *temporary*. Here, I claim that the scheduling problem involves a future-biased agent who faces merely *temporary* rather than *permanent* regret, but that temporary regret does not motivate the future-biased agent to act in ways that lead to the scheduling problem. Therefore, the second premise is false.

In a similar vein, I claim that the meager return problem involves a future-biased agent who faces two options that are *both* regrettable, but *unequally* regrettable given that regret comes in degrees, and so whether the future-biased agent acts rationally in Greene and Sullivan's alleged

counterexample does not turn on that agent's future bias, but rather whether rationality requires choosing the *least* regrettable option where regret is unavoidable. Plausibly, rationality requires that we choose the least regrettable option where regret is unavoidable, which means—as I will illustrate—that the future-biased agent will not act in ways that lead to the meager returns problem if the agent is rational. Therefore, the second premise is false.

In the following sections, I present my counterarguments sequentially, focusing on the scheduling and meager returns problems separately, before elaborating briefly on the relationship between future bias and regret.

### 3 The Scheduling Problem

A future-biased agent—call them “S”—faces the scheduling problem only if they will have a reason to regret scheduling the meal for the past rather than the future. According to Greene and Sullivan, S will have such a reason by scheduling the meal before the deadline. This is because, after the deadline, there is no future meal for S to compare against their past meal. Therefore, S should schedule the meal for the deadline if they wish to avoid certain regret as is assumed. However, the logic of Greene and Sullivan's counterexample dictates that there is a time at which S has no preference for when they scheduled the meal in the past. That time is the day after the deadline. For on the day after the deadline, there is no potential future meal that S could have scheduled instead. The information that S scheduled the meal on some day other than the deadline would no longer matter to S for the same reason that the information that S had scheduled it on the deadline would no longer matter because, for S, the decisive fact as to whether they regret scheduling the meal for one of the days is the fact that there is a potential future meal later than the originally scheduled meal. After the deadline, there is no potential future meal. Therefore, in Greene and Sullivan's counterexample, there is a time at which S has no reason to prefer having scheduled the meal for one day in the past rather than some other day in the past, even if that day were the deadline.

What the foregoing reasoning shows is that S can only experience regret during a certain window of time in Greene and Sullivan's counterexample. That window of time is limited between the first and

last day that S can schedule their meal. Before that window passes, S can regret scheduling the meal before the deadline because the decisive fact of there being a potential future meal still obtains. Once that window passes, however, that decisive fact no longer presents S with a future-biased reason to schedule the meal at some time than any other, and so S lacks that reason to regret having scheduled the meal before the deadline. In that case, S's regret would be *temporary*, meaning that S's preference for having done otherwise will no longer be what they prefer. But unlike *permanent* regret, it is not rationally permissible for S to avoid options they know they will *temporarily* regret in favor of ones they know they will never regret.

Regretting something temporarily, even understood as a temporary preference for having done otherwise, is a pervasive feature of our bounded rationality, where what we are certain to regret now is not, upon discovering further information or changes in our systematic preferences, what we are certain to regret later. Although changes in what we find regrettable can be seen clearly in controversial examples where people undergo transformative experiences, such as becoming a parent, temporary regret can even occur in more modest situations involving weighing dinner options.<sup>3</sup> For example, when visiting a new restaurant with exciting meal options, we can either stick to our favorite kind of dish or try something new.

When trying something new to eat, there is always the risk that we will not like the look, texture, or taste of the dish, in which case we may end up temporarily regretting ordering that dish as we watch others enjoy meals that we know we would enjoy. But that sense of regret could change upon learning that the meal that we are eating, despite it not being our favorite dish, presents a new experience of flavors that we find novel and delicious after tasting it. But avoiding options that carry the potential of regret, or that result in temporary regret, in favor of options that we know we will never regret shelters us from experiencing life to a fuller extent. The risk of regret, and the experience of temporary regret, can be counterbalanced or even outweighed by the expected or even unexpected benefits of our potentially regrettable choices.

Likewise, S's temporary regret of scheduling the meal for one of the days before the deadline will be counterbalanced by the fact that, once the deadline has passed, there will be no future meal for S to compare

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<sup>3</sup> For a rigorous account of transformative experience and its implications for rationality or decision theory, see L.A. Paul (2014).

their past meal against and thus no reason for S to continue preferring to have done otherwise. Once the deadline has passed, each possible day that S could have scheduled the meal for in the past will be equally in the past no matter whether it was the first or last day of the week. Because S will not permanently regret the decision to schedule their meal before the deadline, and because temporarily regretting such a decision does not provide S with a reason to avoid such decisions because the outcome will be equally good, S's choice to avoid *permanent* regret is not affected by their decision to schedule their meal for some time before the deadline despite the temporary regret they will experience. Considered as such, S does not accurately face the scheduling problem and will not postpone a good experience for the last day possible in order to avoid regret. The only *kind* of regret it is rationally permissible for S to avoid is permanent regret, which they do not face in Greene and Sullivan's counterexample. Therefore, S will not act in the irrational ways that Greene and Sullivan predict, and so the second premise of their argument is false.

## 4 The Meager Returns Problem

A future-biased agent—again, call them “S”—faces the meager returns problem only if they have a reason to trade better experiences for worse ones arising from the need to avoid regret. In their thought experiment, Greene and Sullivan describe S as someone who would choose fewer cookies whenever in the future rather than two cookies immediately because, once the window to eat two cookies has passed, they will have wished eating a cookie was still in the future. As a matter of foresight, then, S will choose fewer cookies to schedule whenever in the future.

However, what happens when S eats the one cookie and the experience becomes past? Might not S then wish to have waited just a bit longer to have the one cookie, just as S would have wished not to have the two cookies immediately when they could have waited longer to have the one cookie? The problem here is that the same controlling fact on Greene and Sullivan's reasoning for the meager returns problem—that choosing two cookies now means trading an experience that will then have passed over a potential future experience—applies equally as well if S chooses the one cookie for a particular point in time rather than some other point in time that is up to S to schedule. Once S chooses the one cookie and schedules eating it in their future, that experience will



eventually pass, but since there was no deadline to schedule that experience, Greene and Sullivan's reasoning entails that S would also regret scheduling the one cookie whenever in the present when, afterward, they could have scheduled it later in the future.

In brief, the meager returns problem involves options that are *both* regrettable. S will regret choosing two cookies now when S could have had one cookie later. By the same token, however, if S chooses the one-cookie option, then whenever S schedules their one-cookie meal, S will regret scheduling it for that day rather than a later day. Now, this seems to make the situation worse for the rationality of future bias. For if it is true that S would not only regret choosing two cookies now but also regret even scheduling the one-cookie meal, then if S wishes to avoid regret, they should avoid both the two-cookie and one-cookie options. The irrationality thus appears to run deeper than Greene and Sullivan predicted. If they are right, then the meager returns problem is not that future-biased agents would trade better experiences for worse experiences in order to avoid regret. Rather, they would be willing to give up a good experience in order to avoid regret.

However, rationality does not break down where all our options are regrettable, but plausibly rationality requires that we mitigate that regret by choosing the least regrettable option if possible. Indeed, regret is mitigatable because regret comes in degrees. To be sure, the idea that regret comes in degrees should follow logically from Greene and Sullivan's definition of regret as a preference for doing otherwise. Because preferences come in degrees, such that some preferences are stronger than others, it follows that regret understood in terms of preferences likewise comes in degrees. Yet even were regret understood in different terms, the idea that things are more or less regrettable, or that there are different levels of regret, has enough plausibility that dedicating an argument for this idea may be beyond the compass of this paper. Nevertheless, assuming that regret comes in degrees and is thus mitigatable, then consider the following principle:

**Mitigating Regret:** If an agent has full and accurate information about the effects of the options available to them, but all options are in the same sense regrettable, then it is rationally required for the agent to choose the option that is least regrettable in that sense or least regrettable in all other available and relevant senses.

Here, *S*'s first choice to have two cookies now and their choice to have one cookie at some point in the future are both regrettable and equally so in the same sense; *S* will regret the first option in the sense that they could have had one cookie at some arbitrary time in the future instead of two cookies immediately, and *S* will regret the second option in the sense that they could have had one cookie at a later point in the future rather than the arbitrary time they chose. In that case, Mitigating Regret directs agents to choose the option least regrettable in all other available and relevant senses. Here, the other available and relevant sense that renders one of *S*'s options less regrettable than the other is the sense in which consuming two cookies is a marginally better experience than consuming one cookie, holding all else equal. According to Mitigating Regret, then, *S* is rationally required to choose two cookies immediately rather than one cookie at some point in the future. To be sure, *S* will feel some regret for the fact that they could have the one cookie in the future if they chose differently. But this will be counterbalanced by the lack of the worse regret that *S* would feel in not only scheduling one cookie at some arbitrary time rather than another, but also giving up the two-cookie experience. Given the balance of reasons, *S* is not rationally required to avoid the two-cookie experience given Mitigating Regret and given that Weak No Regrets does not seem to apply to cases in which regret is unavoidable.

In sum, despite the fact that *S*'s future bias generates regret, *S* nevertheless has most reason to choose the better two-cookie option rather than the worse one-cookie option and thus does not face Greene and Sullivan's meager returns problem. Because *S* does not face the meager returns problem, the second premise of Greene and Sullivan's argument is false.

## **5 Future Bias and Regret**

Greene and Sullivan's argument against future bias depends on the premise that future-biased agents will act in irrational ways in order to avoid certain regret. These irrational ways are the scheduling and meager returns problems. I have tried to show that future-biased agents do not face the scheduling and meager returns problems because the scheduling problem involves temporary rather than permanent regret, which does not cause future-biased agents to postpone valuable experiences towards

some deadline; and the meager returns problem involves different degrees of regret that are mitigable, but future-biased agents can rationally respond to such a situation by choosing the least regrettable option according to some of the available senses relevant to comparing those options.

Although I have tried to undermine Greene and Sullivan's argument by showing that its second premise is false, nevertheless my argument raises many philosophically rich, but also questionable issues concerning the relationship between future bias and regret. Among the most notable issues is that, even if I have succeeded in showing that future-biased agents do not face the scheduling and meager returns problems, nevertheless it seems highly irrational of future-biased agents to experience regret at all—whether temporary or permanent—in Greene and Sullivan's counterexamples. Put differently, even if I have shown that the scheduling problem involves merely *temporary* regret, is it not irrational for an agent to temporarily regret an option that is equally as good as one of the alternative options? And even if I have shown that there is no meager returns problems because future-biased agents who act on the Mitigating Regret principle will choose the supposedly better outcome, is it not irrational for an agent to regret both of their options because both options involve potential experiences that will become past rather than present or future?

In my view, the foregoing questions arise from the fact that "regret," even minimally defined as the preference for having done otherwise, continues to express the thought that things would have gone *better* had the subject of that term acted otherwise, but this is incongruent with the logic of Greene and Sullivan's counterexamples. Indeed, we normally associate regret with a painful feeling whose object is a lamentable situation involving the thought that one chose or acted incorrectly according to some set of value. But in the cases at hand, regret is characterized neutrally as a mere preference for having done otherwise that does not express the thought that things would have gone better or worse had one done otherwise. In attributing regret to the future-biased agent at all, the content of that attribution, which represents the agent as having acted incorrectly, cannot be so easily defined away. This is why it can be difficult for some to understand why the character in Greene and Sullivan's first example would feel regret about their choice to schedule their dinner given that nothing about the features of that dinner that make it good or pleasurable are affected by *when* the character schedules the dinner.

Yet suppose that Greene and Sullivan's argument used the phrase "changing one's mind" rather than "regret" to characterize a future-biased agent who prefers to have done otherwise. Understood as such, their argument could be viewed as stating that future-biased agents will act in irrational ways in order to avoid changing their minds; my counterargument could then be viewed as stating that although future-biased agents change their minds in their counterexamples, nevertheless their change of mind does not generate the scheduling and meager returns problems due to two features of changing one's mind, which is that changing one's mind can be temporary and that changing one's mind comes in degrees. By replacing the term "regret" with "changing one's mind," it is plausible that the two questions above concerning the irrationality of experiencing regret when the future-biased agent's acted rationally arises from a semantic problem with Greene and Sullivan's use of the term "regret" to characterize the preference for having done otherwise rather than a more neutral term or expression.

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