# Fear of the Past

Davide Bordini

Department of Philosophy

University of Fribourg

davide.bordini@gmail.com


Giuliano Torrengo

Department of Philosophy "Piero Martinetti"

State University of Milan

Department of Philosophy

Autonomous University of Barcelona

giuliano.torrengo@gmail.com

> Fear may be defined as a pain or disturbance due to a mental
> picture of some destructive or painful evil in the future.
> —Aristotle, *Rhetoric* 2.5, 1382a21

**Abstract**. A widespread (and often tacit) assumption is that fear is an anticipatory emotion and, as such, inherently future-oriented. *Prima facie*, such an assumption is threatened by cases where we seem to be afraid of things in the past: if it is possible to fear the past, then fear entertains no special relation with the future—or so some have argued. This seems to force us to choose between an account of fear as an anticipatory emotion (supported by pre-theoretical intuitions as well as empirical research in psychology) and admitting cases of past-oriented fear. In this paper, we argue for a proposal that dissolves this dilemma. Our claim is: with the right account in place, the future-orientation of fear can be made compatible with, and is actually explanatory of, cases where we are genuinely afraid of something in the past. So, there is no need to choose: fear is still future-oriented, even when we are genuinely afraid of things

in the past. The key is a correct understanding of what fear's *temporal orientation* amounts to, and the framework we offer here provides us with such an understanding.

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# 1. Introduction

Can we be afraid of the past? At first sight, this might sound weird to ask—but things are different, upon closer inspection. For example, suppose that you leave your place to go on holidays. Suddenly, while sitting on the plane, a thought occurs to you: 'I left the burner on.' Immediately, you are in the grip of fear—you fear that you *left* the burner on (Prinz 2004). Or consider the scenario where a person fears that their mother *was* on an airplane that they know to have crashed a couple of hours earlier (Roberts 2003). These are cases where one is afraid of something, and what one is afraid of has already happened—it is in the past. Cases like these suggest that we can be afraid of the past, after all. This seems to immediately rule out a way of construing fear as a future-oriented emotion—or so some have concluded (Roberts 2003; Prinz 2004).

Importantly, it is worth stressing that abandoning fear's future-orientation does not just mean dropping a pre-theoretic intuition among others, which has turned out to be inconsistent with other pre-theoretic intuitions of ours. Starting from Aristotle (*Rhetoric* 2.5, 1382a21–25), a venerable tradition has construed fear as *essentially* future-oriented. More importantly, the idea that fear inherently involves an element of 'anticipation' of the future is widely shared among psychologists (e.g., Ortony, Clore, & Collins 1988; Loewenstein, Weber, Hsee, & Welch 2001; Loewenstein & Lerner 2003; Baumgartner, Pieters, & Bagozzi 2008). The point is not just that fear, like all other emotions, plays an important role in motivating our actions and is involved in our planning for (and understanding of) the future. What is at stake here is a more 'intimate' connection between fear and future events. A proper understanding of such a connection is part of what this paper wants to offer and will require some philosophical work—so, a full account will be offered in due course. However, by way of preliminary characterization, the following can be said. From a psychological point of view, it makes sense to look at fear as a mechanism of danger detection (see, e.g., Lazarus 1991; Prinz 2004; Kurth

2018: Ch. 2, 7), which is sensitive to, and somehow involves an anticipation of, likely negative future outcomes, thereby helping us avoid them. Fear then structurally involves some form of awareness of the future.[1]

So, if fear is anticipatory and is 'experienced due to something that could happen in the future' (Baumgartner et al. 2008: 685), how can we be genuinely afraid of the past? To be sure, the past is not something we anticipate. Moreover, what would be the purpose of displaying an emotional reaction toward something located in the past, given that it is not something that we think we can change, modify, contrast, or avoid? *Prima facie*, the following dilemma arises: either we accept that we can be afraid of the past, but then the idea that fear is inherently future-oriented has to be abandoned—or becomes puzzling, at the very least; or we drop the idea that we can be afraid of the past, but then cases where we seem to fear something that has already happened are not genuine cases of fear after all.

In this paper, we argue for a proposal that dissolves this dilemma.[2] In short, our claim is: with the right account in place, the future-orientation of fear can be made compatible with, and is actually explanatory of, cases where we are genuinely afraid of something that happened

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[1] Clearly, when so understood, the connection between fear and future is not merely extrinsic; nor is it a feature that fear shares with all other emotions—or even most of them. Perhaps, some other emotions are connected to the future in an analogous way—for instance, hope may be seen as structurally involving a form of awareness directed at some desired future outcome (e.g., Calhoun 2018; Ortony et al. 1988; for denials, see, e.g., Prinz 2004; and Deonna & Teroni 2012). However, to be sure, not all emotions enjoy such a special relation with the future—in fact, most of them do not. A few seem to have different inherent temporal orientation—regret, for instance, is likely to be inherently past-oriented, insofar as it is a form of awareness of a past misdeed. Many others, instead, do not seem to have any inherent temporal orientation at all. For example, happiness can be about a present good ('I am happy that you are here'), but also a future good ('I am happy that you will come by') or even a past one ('I am happy that we met that day'). Even though this will require some significant finessing (we will do that in Section 2), it should suffice to preliminarily pin down the specific sense in which we take fear to be future-oriented.

[2] Let us dispel a worry that may naturally arise at this stage. One may think that the idea that fear is future-oriented is untouched by the examples that are discussed in the literature. The puzzle dissolves as soon as we realize that past happenings can pose present or future threats, and thus being connected with some future harm. On the assumption that fear involves some form of awareness of future harm, fearing the past should not be puzzling after all. We agree that *some* cases of fearing the past could be understood in this way. And indeed we will argue to that effect. However, first, to get there, a clearer understanding of the relation between danger detection and awareness of future harm in fear is required. Second, it seems clear to us that in the literature not all cases of (putative) fearing the past have been understood in this way, and we think that they should be taken seriously. Indeed, we raise the dilemma because we think that they have not been taken seriously enough.

in the past. So, there is no need to choose: fear is still future-oriented, even when we are genuinely afraid of things in the past. The key is a correct understanding of what fear's *temporal orientation* amounts to. To put it with a slogan, the gist of our proposal is: fear can be about the past, only if (and arguably because) it somehow targets the future. What follows fully unpacks this suggestion. Here is how we proceed.

We begin by introducing a framework to model the temporal orientation of fear (Section 2). This gives the basis for an account of fear of the past on which fear's future-orientation has a crucial explanatory role to play (Section 3). As we will argue, such an account is the best option on the market (Section 4). Hence our conclusion: *pace* Prinz and Roberts, the possibility of fearing things in the past is not a reason to drop fear's inherent orientation towards the future. On the contrary, fear's future-orientation is needed to make full sense of those cases, provided a proper understanding of it along the lines specified by our framework.

## 2. Fear as an Inherently Future-Oriented Emotion

The idea that fear somehow involves an anticipation of some negative future event—and is thereby future-oriented—is quite popular and supported both by our pre-theoretic intuitions and by empirical research in psychology. But how are we to cash out this idea exactly? What is it exactly that fear anticipates? These are crucial questions to achieve a proper understanding of fear's future-orientation. In this section, we introduce and illustrate what we call a two-dimensional (2D) framework to model the temporal orientation of fear and thereby make sense of its inherent future-orientation in accordance with some widely shared assumptions concerning its nature.

### 2.1. Fear as Experience of Dangerousness

First of all, let us quickly clarify what we have in mind when we talk about fear. In our ordinary language, we commonly use expressions such as 'fear' or 'being afraid of' in many different contexts to refer to or express various things—not all of them are relevant to our present discussion. For example, if a last-minute complication shows up that will make it difficult for you to be at the dinner scheduled for later this evening at a friend's, you will probably apologize and say something like: 'I am so sorry, I *am afraid* I won't be able to make it for dinner tonight.' While this is a perfectly acceptable way of talking, it is not a way to inform your friend on your being frightened—at least in an ordinary context. Rather, it is a polite way of saying that there

are (high) chances that you will not be at the dinner. Likewise, you might look at the cloudy sky and then tell a friend: 'I *am afraid* it is going to rain soon.' Again, this is perfectly okay, but it does not report on your being in the grip of fear. More plausibly, it is just a way of communicating your thought that there are chances that it will rain and suggest that you are worried about it. In short, despite the use of a fear related talk, these are *not* cases of genuine *experiences* of fear. As such, they are not the focus of our discussion in this paper. To be sure, an interesting question arises as to how those cases relate to genuine experiences of fear—but it is not the question that we want to address here. Our focus, instead, will be on *genuine* fear, which we take to be a type of experience, that is, a type of conscious state with certain characteristic *phenomenal* and *intentional* (i.e., representational) features.[3]

A widely held view is that undergoing an experience of fear inherently involves an appraisal of dangerousness.[4] Plausibly, such an appraisal is part of what cases like the ones mentioned right above—the non-genuine cases—lack. By contrast, when I see a barking dog and am afraid of him, I have an experience of dangerousness—more precisely, I represent a specific danger, the dog.[5] The latter is the *intentional object* of my experience of fear—what it

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[3] Note that the claim that fear is an experience with a characteristic phenomenology and intentionality can be questioned at least on two fronts. Firstly, one can maintain that fear is a dispositional state, and dispositional states have no distinctive phenomenology. However, even if fear is dispositional, an actualization of a dispositional fear is an *occurring* conscious state, of which we claim there is a distinctive phenomenology. Secondly, certain cases of fears, such as fits of phobia, seem to lack an intentional dimension, being a mere causal reaction to some input situation (e.g., a spider crawling on my arm). We do not deny the existence of such cases but maintain that not *all* (actualized) cases of fear can be reduced to fits of phobias. We won't argue for this tenet here though (for more on this see Bordini & Torrengo 2021). Finally, some authors have argued that emotions, and fear in particular, can occur unconsciously (e.g., Zajonk 1980; 2000; Panksepp 1998; LeDoux 2014). However, we will not consider this claim or fear understood in this sense here.

[4] Sometimes people refer to being a threat or being threatening or being menacing as the properties to which fear is sensitive. We take all these properties to be sufficiently close to dangerousness to make no substantial difference for our point if we assume dangerousness.

[5] We take the appraisal of dangerousness to be necessary for fear. One might legitimately wonder whether it is also sufficient. That is an important but very difficult question. It might be that further ingredients should be added, or further conditions imposed, to have a proper analysis of the experiential character of fear; or it might turn out that no reductive analysis can be given. Ultimately, taking a stance on this would require us to deal with deeper and broader questions concerning the nature of emotions (and phenomenal states, more generally), their individuation, and the very possibility of accounting for them in terms of something else—and doing that clearly outstrips the purposes of this paper. So, we remain neutral on those issues and limit ourselves to notice that what we are going to say is compatible with any of the aforementioned options.

is of or about. Different fear-episodes can be directed upon different intentional objects—for example, dogs, spiders, exams, people, viruses, wars, economic crises, etc. However, common to all of them is their representing dangerousness: regardless of its being directed upon a dog, a war, coronavirus, a financial crisis, Donald Trump, fear will always represent the dangerousness of these things. So, dangerousness, too, is an object of fear, but in a different sense than dogs, wars, viruses, financial crises or Donald Trump. To mark this difference, dangerousness is usually referred to as the *formal object* of fear:[6] it is the evaluative property fear (and no other emotion) is sensitive to (see, e.g., de Sousa 2002; Prinz 2004; Teroni 2007; Deonna & Teroni 2012; Scarantino & de Sousa 2018). As such, it is standardly taken to (i) individuate fear as an emotion-type,[7] (ii) make it intelligible, and (iii) provide its appropriateness conditions (see, e.g., de Sousa 1987; Scarantino & de Sousa 2018).

## 2.2. From Dangerousness to Future-Orientation

We believe that fear's future-orientation stems directly from the intimate relation with dangerousness that characterizes the nature of such an emotion. Let us see how.

At the outset, one might try to cash out the link between fear's anticipatory element and its nature of danger-appraisal with the following suggestion: fear is always about a danger located in the future. However, this immediately appears as a highly implausible move, since the dangers that we detect when we are afraid are quite often in the present—and reasonably so, given that fear's capability of informing us of present threats seems crucial to its evolutionary function.

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[6] Different emotions have different formal objects. (For more on emotions and formal objects see, e.g., Kenny 1963; Wilson 1972; Lazarus 1991; Teroni 2007; Deonna & Teroni 2012.) According to a standard view, formal objects are represented evaluative properties that feature in the content of the emotion (e.g., Tye 2008; Mendelovici 2013; Tappolet 2016; Rossi & Tappolet 2019). On a less standard approach, instead, they are somehow 'built into' the attitude towards a content (e.g., Deonna & Teroni 2012; 2015; Kriegel 2015; 2017; Grzankowski 2020). A third option construes the experience of evaluative properties involved in emotion as escaping a description in terms of the traditional attitude-content distinction (e.g., Mitchell 2019). Taking a stance on this debate is orthogonal to our present discussion and we intend to remain neutral on these issues. In what follows, we will often say that dangerousness—fear's formal object—is represent*ed* or attribut*ed* to something. This way of talking reflects a choice we made merely for the sake of simplicity and exposition purposes but does not reflect any deeper theoretical commitment or preference.

[7] This might be disputed, though (e.g., Teroni 2007). For example, emotions might be individuated in terms of their functional role (e.g., Grzankowski 2020).

Let us turn to a different suggestion, then. In the context of broader discussions on fear, Gordon (1980) and Davis (1987; 1988) suggest that reports of fear-experiences such as 'I am afraid of the dog' or 'Johnny is afraid of the bully' are shortcuts for (respectively) 'I am afraid that the dog *will harm* me' (cf. Gordon 1980: 561) and 'Johnny is afraid that the bully *will harm* him' (cf. Davis 1987: 289). Though it concerns linguistic paraphrases, such a suggestion presupposes a deeper *revision in the intentional structure* of the experience of fear, which is now cast as involving a representation of a *future harm* (see, e.g., Davis 1988: 472). So, for example, when you are afraid of a dog, your experience is not intentionally directed upon the dog that is now in front of you, but on the *future* state of affairs in which the dog harms you. Likewise, when Johnny is afraid of the bully, the object of his fear is not the bully he now encounters, but the future state of affairs in which the bully harms him. The inherent future-orientation of fear would thus be guaranteed by such a revision in its intentional structure: fear inherently anticipates the future insofar as it constitutively involves a representation of a future harm.

But now the question is: what in the nature of fear justifies such a revision in its intentional structure? *Prima facie*, it is not clear how we should answer this question, given the story above. Actually, it seems that, if we hold fixed the claim that fear involves an appraisal of dangerousness, we should expect it to represent dangers and not future harms—and so, to stick to our examples, the dog and the bully rather than the future harms they might cause. In short, the worry that lurks in the background here is that Davis's and Gordon's suggestion gives us fear's future-orientation but also might bring along an undesired effect: a revision in our understanding of the nature of fear, which would no longer be cast as sensitive to (possibly present) dangers, but to harms that lie in the future. And to be sure, it is preferable to avoid such a revision. Notice, the problem is not the revision *per se*, which might be acceptable under the pressure of independent reasons of the right sort. The problem is that we do not seem to have such reasons in the present context; while on the contrary we do have strong, independent, and widely accepted reasons coming from both the philosophical and the empirical literature to construe fear as an appraisal of dangerousness.

The worry is legitimate. However, to avoid the undesired revision, we do not need to drop the suggestion that fear involves a representation of a future harm altogether—in fact, we believe that this is on the right track. What we do need, instead, is a more articulated story on what principled reasons motivate the *inclusion* of such a representation in a story that holds fixed that fear is primarily sensitive to dangerousness. Upon closer inspection, these reasons are not hard to find, after all. A present danger is something capable of producing some harm

in the future. So, an inherent connection obtains between a danger and the possibility of some future harm. Given that, a plausible hypothesis is that fear, *qua* danger-sensitive emotion, will also involve something like an awareness of some possible future harm that the represented danger might cause—or merely an awareness that the identified danger will harm someone or something. Let us explore this connection a bit further.

Suppose you are out for a walk and, at some point, encounter a dog growling or barking at you. Immediately, you start experiencing fear—you appraise the dog (or his being around) as dangerous, and start being afraid of him (or of his being around). Now, we believe it is plausible to say that, in this context, you are also aware of some harm the dog might cause to you—or just *that* he might harm you somehow. In fact, the dangerousness of the dog would not be detected, if the dog himself was not appreciated by you as something that might bring about some harm soon (but has not yet). More specifically, our claim is: you appraise the dangerousness of the dog *in virtue* of such an awareness that he might harm you somehow in the (near) future. Fear thus requires an awareness of the possibility of some future harm, insofar as the appraisal of dangerousness inherently involved in such an emotion is *grounded in* that awareness.[8] In short, your fear involves:

(i) An appraisal of the dangerousness of the dog, which is *grounded in* (ii), that is:
(ii) An awareness of the possible harm that the dog is likely to cause in the (near) future.

We think that this structure generalizes and applies roughly speaking to all genuine experiences of fear. This clarifies the sense in which fear requires a representation of some future harm

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[8] We believe that the relation between representation of the future harm and the appraisal of dangerousness that constitutes fear is to be modelled in terms of a grounding relation. That is, roughly, when a fact or a feature A grounds a fact or feature B, there is an intimate explanatory connection between the two, such that B is the case in virtue of A being the case. Although we remain neutral about most of the details concerning the precise characterization of grounding (to have an idea of the debate, see, e.g., Correia & Schnieder 2013), we will stick to a grounding talk to present our account of fear's future-orientation. At the same time, we acknowledge that this is not the only option available. For example, one might think that the appraisal of dangerousness that constitutes an experience of fear is identical to a representation that X will harm someone or something (more on this later in the main text; see also Bordini & Torrengo 2021). While the specific option one prefers might have some consequences for the details of the 2D framework we are going to propose momentarily, it makes no substantial difference for the general point concerning the 2D temporal orientation of fear as well as the more specific account we will provide of fearing the past. So, the reader who disagrees with us on the grounding claim, can operate the relevant substitutions and still agree with us on the substance of what we propose.

without introducing any deep revision in the nature or intentionality of fear of the sort we would like to avoid: dangerousness remains the formal object of the emotion, while specific dangers are still its intentional objects.

Once we accept this, the next step is to acknowledge that undergoing an experience of fear involves the representation of *two* distinct, though connected, *temporal locations*. Consider, for example, Johnny: he is in the school's corridor, when he suddenly sees the bully. He appraises (the presence of) the bully as dangerous in virtue of envisaging some possible harm the bully might cause to him. By having this experience, then, Johnny is aware of the *temporal location of the danger* he detects—the bully (or his being around nearby), who is in Johnny's present ($t_1$); but he is also aware of *the temporal location of the harm* the bully might cause, which is some time $t_2$ in the future of the present time $t_1$.

Hence, the *two-dimensional* temporal orientation of fear, articulated as follows:

- *Temporal topic* (or simply *topic*): It is delivered by the represented temporal location of the intentional object an episode of fear is intentionally directed upon. Importantly, fear has *no* inherent temporal orientation with respect to its topic. For although it is typically about objects located in the present, it can well be about things that lie in the future—or even in the past, as we are going to argue in the next sections.

- *Temporal target* (or simply *target*): It corresponds to the represented location of the harm the dangerous thing might cause. The target is thus *always* in the future in that fear *always* involves an awareness of a future harm in the way described right above. In particular, it is in the future with respect to *both* (a) the time at which the dangerous object is located, *and* (b) the subject's present (i.e., the deictic centre of the fear episode).[9]

*This*, we maintain, is the correct understanding of fear's inherent orientation towards the future: when we are afraid, we detect a danger (at some location in time) because we envisage the possibility of a future harm. So, far from being at odds with it, the intimate relation with dangerousness is what fear's future-orientation directly stems from.

To sum up, our framework to account for fear's temporal orientation articulates in the following claims:

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[9] At least, in what we will call *core* cases of fear. More on this in Subsection 3.2.

1. *Nature*. Fear inherently involves an appraisal of the dangerousness of an X, the intentional object of the experience. Such an appraisal is grounded in the awareness of some harm that X might cause in the future.

2. *2D temporal orientation*. Fear has a *temporal topic*—given by the representation of the temporal location of its intentional object. This can vary, though it is typically the present. In addition, it has a *temporal target*—given by the representation of the temporal location of the harm the intentional object might cause. The target always lies in the future with respect to *both* the topic *and* the subject's present.

3. *Inherent future-orientation*. Since it inherently involves an appraisal of dangerousness, which is grounded in the awareness of a future harm, fear inherently targets the future, independently of what its topic is. In *this sense*, it is inherently future-oriented.

So, according to our 2D framework, fear's temporal orientation is *not* uniquely tied to the temporal location of the intentional object of a fear episode but is richer and more articulated. Fear provides explicit information concerning *both* the temporal location of the intentional object (the danger one detects) *and* that of the harm it might cause. This is worth stressing because it sets us apart from other existing ways of looking at fear's temporal orientation that, instead, seem to conceive it as *one*-dimensional—that is, as uniquely dependent on the temporal location of its intentional object (see Gordon 1980; Davis 1987; 1988; Roberts 2003; Prinz 2004; Price 2006).

We are now in the position to clarify a point concerning the conceptual connection between danger and harm in relation to our 2D account. At this stage, one may wonder whether *being dangerous* is analytically equivalent to (or even identical with) *being potentially harmful*. We are not against such an analysis of dangerousness. However, accepting it does not make our 2D account unnecessary. Even if there is only one property involved here (i.e., *being dangerous ultimately* boils down to *being potentially harmful*), the intentional structure of fear, as far as its temporal orientation is concerned, is still articulated around two foci. First of all, if *being dangerous* and *being potentially harmful* are indeed analytically equivalent, representing an X as dangerous just is representing X as capable of producing some harm. So construed, representation of X's dangerousness is representation of some causal link between X (the danger) and its possible harmful deliverances (the harm). But this plausibly involves representing two different temporal locations, too—namely, that of X (the danger) and that of the possible harm it might cause. Our main thesis is that fear's temporal orientation does not coincide with just one of them but encompasses both.

Secondly, and relatedly, the same property has to be apprehended from two different temporal standpoints, as it were. Otherwise, we would not be in the position to explain why envisaging a future harm may push us to act in the present. To see the point, consider the following analogy from a very different context. Imagine you want to program a computer to make stock investments for you over the next three years and be sure that it does not make risky investments. To that end, you define 'risky' as *being more than 50% likely to lead to a loss in the next six months*. Although, by stipulation, you have identified the property of *being risky* with a certain future-oriented procedure, you still need the program to handle information concerning two temporal locations: the time of the investment, and the prospected trajectory of the market in the following six months.

# 3. Fearing the Past

We have now a way to model the temporal orientation of fear that clarifies in what sense fear is inherently future-oriented. In this section, we show how this is compatible with and helps account for cases of fearing the past without having to drop the claim that fear anticipates the future. We start by pointing out how cases of fearing the past raise a general and deep challenge not just for our 2D framework but for *any* account of fear (Subsect. 3.1)—ultimately, this is why they are interesting and worth discussing. Then, we show in detail how our 2D framework meets such a challenge (Subsects. 3.2–3.4). The result will be an articulated account of fearing the past that does not drop fear's future-orientation but latches on to it as a crucial explanatory element (Subsect. 3.5). As we will argue in Section 4, that makes our proposal the only option on the market that really meets the challenge raised by fear of the past and hence the one to be preferred.

## 3.1. Challenges from the Past

As some have pointed out (e.g., Roberts 2003; Prinz 2004), at least in some cases, it seems that we can be afraid of things in the past. For example, 'I can fear that I left the burner on' (Prinz 2004: 28) or '[a person] might fear that [their] mother was on an airplane that [they] know to have crashed a couple of hours earlier' (adapted from Roberts 2003: 193). Cases like these have been used to argue that fear has *no* special connection with the future and, more generally, *no* inherent temporal orientation whatsoever—it can be indifferently about the present, the future, or the past.

We will get back to that in the next section. Let us see now why cases of this sort are problematic for *our* account. Consider the following example. It's Monday afternoon, you are working in your office when you suddenly realize that your daughter, Mevina, might have decided to go ice-skating alone in the morning, although she is not very good at it. You know that on Mondays the ice pavilion is open only in the morning. So, by now either Mevina is unharmed (either because she did not go, or because she went but did not harm herself), or she is harmed. You know that if she went, it is much more likely that she got injured—and of course you do not want that. Falling while skating may be something that harms *her*. Even though you might suffer further consequences from that, you are now focused *on what might have happened to her*. Therefore, both the danger (her going to the pavilion) and the harm (her getting injured) are in the past. And yet, the thought that she might have gone *scares you*. Note that this is a case of *non-egocentric*, *altruistic* fear. Although feeling 'for' others are arguably non-standard cases of emotions,[10] it is plausible to maintain that the phenomenology involved in such cases does not differ dramatically from that of egocentric fear. That makes the previous example problematic for us. The reason why is straightforward. Our 2D account prescribes that the target (the harm) be future not only relative to the topic (the danger), but also relative to the fear episode. Yet, in the example of the parent and Mevina both the target and the topic are past with respect to the fear episode.

We call this problem the *Restricted Challenge*, as it does not express a general worry but construes the problem as a problem for our 2D framework.

However, a deeper and more general question arises here: How can a past-located event, whose relevant harmful consequences are also located in the subject's past, still be appraised by that subject as dangerous and thus be the object of an experience of fear? For plausibly, something is dangerous as long as it has potential harmful consequences; however, at the time at which the parent is afraid that Mevina went to the ice pavilion, either Mevina is already hurt—and thus the harmful consequence has already happened; or she is safe at home— and thus no harmful consequence has happened or will happen.

Either way, the state of affairs in which Mevina goes to the ice pavilion is no longer dangerous with respect to its being a potential source of injuries for her. In other words, the pastness of the potential harmful consequences of Mevina having gone to the ice pavilion seems to have 'neutralized' the very dangerousness of that situation, which seems to be *no longer* dangerous—even if perhaps it *was*. But why then should the parent be afraid of it at all?

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[10] We thank an anonymous referee for this journal for having pointed this out to us.

More generally, why should one experience fear in cases like this? And yet, at the same time, we do seem to experience something like fear in those cases. How to explain that?

Notice, raising these questions does not just mean blaming a specific account for delivering wrong predictions. The worry here is broader and concerns how we should explain (or explain away) the possibility of being afraid of the past, not given a specific account of fear's temporal orientation, but given the widespread understanding of fear as a danger-sensitive emotion. For on the face of it, the two things seem to be at odds—there just seems to be no point in attributing dangerousness to things that can no longer harm anyone or anything; and yet, it seems, we can still be afraid of them. So, allowing for the possibility that we are afraid of the past does not simply seem to undermine the connection between fear and future but pushes us to reflect on the very nature of fear as a danger-detection mechanism. Therefore, one way or another, *any* theory of fear must tell us something about this. This is the *Unrestricted Challenge* raised by fear of the past and is what makes cases of fearing the past worth discussing.

In the rest of this section, we will develop a reply to the Restricted Challenge—that is, we will present in detail how our 2D framework is capable of accounting for fearing the past. By doing that, we will offer our reply to the Unrestricted Challenge, too. For as we will make clear in due course, our account is not only capable of accommodating cases of fearing the past but also offers a principled and articulated explanation of them.

But why should we put forward such an account at all? Should the considerations right above not push us in the direction of simply denying the very possibility of fearing the past, instead? Though this is an option (see, e.g., Davis 1987), it is not the line we intend to pursue here, for at least two reasons. The first is methodological: such an extreme attitude should come as a result of an unproductive exploration of the viability of alternative and more moderate possibilities that make sense of an intuitive datum. After all, the challenge is to provide an explanation of fearing the past. Starting with a mere denial of such a possibility looks more like avoiding the challenge than replying to it. Moreover, an account that is shown to be compatible with that possibility and explains it must be preferred to alternatives that do not explain it or are in principle not compatible with it.

The second reason has more to do with the details of our account, and so it will become fully clear as we go along. However, just to anticipate a bit, we do not believe that all cases of fearing the past are of the same type. We are open to conceding that sometimes one undergoes more borderline experiences—even though we will argue that even in those cases there are grounds to talk of genuine fear (see Subsect. 3.2). At the same time, we maintain that some

other cases are less borderline—or not borderline at all—and, at least in those cases, we can be genuinely afraid of the past. We leave up to what follows the task of spelling out this in greater detail.

## 3.2. Former Dangers: The Relative Future Hypothesis

To develop our 2D account, we will adopt a divide-and-conquer strategy. That is, we will distinguish different types of cases and put forward as many different hypotheses to account for each of them (this and the next two subsections). Then, we will wrap up and show how they are all integrated into a unitary and articulated account of fearing the past (Subsect. 3.5).

For starters, one may think that fearing the past is undergoing an emotional experience directed upon a past danger. However, the expression 'past danger' is ambiguous between being a *former danger* and being a thing in the past that is *still an active danger.* A former danger is a no-longer-active danger. That is, it is something that *was* in the position to produce some harmful consequences but is no longer in that position, when considered from the point of view of the present. In short, its dangerousness is gone. Something might no longer be in the position to harm for different reasons. For example, it might have succeeded in causing the relevant harm it was supposed to be able to cause; or it might have failed to do so—for example, someone might have intervened and made the dangerous thing itself innocuous. By contrast, a still-active danger is something that is temporally located in the past, but whose dangerousness is *not* past. Namely, it is *now* somehow still in the position to produce relevant possible harmful consequences in the future. Therefore, one thing is to represent something as a former danger, another thing is to represent something in the past as a still-active danger.

Our working hypothesis is that representing something as a former danger or as a still-active danger makes the difference to one's experience of fear. In the latter case, one is genuinely afraid of the past (more on this in Subsects. 3.3 and 3.4). In the former case, things are a bit fuzzier and the experience one undergoes is more borderline. Let us have a closer look.

Let us go back to the example of the parent and Mevina. As we have described it, the case is one of representing a former danger. Cases of this sort retain some elements of continuity with paradigmatic cases of fear—the main of them being that the temporal relation between the topic and the target is *locally* preserved, that is, the latter is in the future of the former. At the same time, they exhibit some important differences. The most striking one is that the target is *not* in the future of the subject, as we noted in presenting the Restricted Challenge. The relative future-ness of the target is enough to appraise the dangerousness of

Mevina going to the ice pavilion, but not enough to ground an appraisal of it as a *still*-active danger—hence, its being represented as a *former danger*. So, there is a sense in which the parent experientially appreciates dangerousness, even though it is not exactly the same as the one involved in paradigmatic cases of fear. This is what makes these types of cases a bit fuzzy and borderline.

Nonetheless, we believe that it also provides sufficient support to claim that the parent undergoes a genuine experience of fear with the following important qualification. Experiences of fear do not all come with the same overall intensity. On the contrary, they vary along a whole spectrum of cases that ranges from *core* cases, which are phenomenally very vivid and intense, to *non-core* cases, whose phenomenology is somewhat impoverished and faded.[11] Our proposal is that the description of the parent's experience suggests that she is undergoing a *non-core* case of fear, somewhat close to the boundaries of what still counts as fear.

To sum up, a first type of cases of fearing the past have the following structure: they involve a representation of a former danger grounded in the representation of a harm that is in the future *only* relative to that danger. That is, using the terminology of our 2D framework, in these cases: (a) the topic is the past, and (b) the target is only *relatively* in the future, since it is in the future of the topic but not in the future of the subject of the experience. Such a structure is responsible for a somewhat impoverished phenomenology, which involves an element of experiential appreciation of dangerousness, but not of a still-active danger. This is enough to make these cases genuine experiences of fear. However, it is not enough to make them core cases. These are then non-core, and often borderline, cases of fear that occupy a very eccentric position in the spectrum. This is the *relative future* hypothesis.[12]

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[11] This distinction can be introduced independently of the discussion of cases where the (alleged) object of fear is located in the past and can be accepted regardless of what one thinks of the possibility of being genuinely afraid of things in the past. For it does not map on the past-/non-past-located topic (see Bordini & Torrengo 2021). For example, one can be afraid of tomorrow's exam—so something in the future. In such a case, one is likely to experience some fear phenomenology but not the same vivid and intense phenomenology one experiences when one sees a dog and is afraid of him. On the contrary, as we will see, there can be cases where the object is in the past that can have a quite vivid phenomenology.

[12] As we noted presenting it, the case of the parent and Mevina is a non-egocentric, altruistic case of fear. It may be that cases that fall under the relative future hypothesis are (or tend to be) non-egocentric. And it may be that non-egocentric cases of fear (as in general non-egocentric cases of emotions, or feeling 'for' others) are non-standard. If so, it should not come as a surprise that when the target is in the past (but still future relative to the topic), we have a somehow impoverished phenomenology. We are not making any further assumption here, and we take the case of the parent and Mevina to be merely illustrative of a former danger involved in a genuine (albeit

Though we consider them as cases of fear, we are aware that much of that depends on where one exactly sets the boundaries for such an emotion—less liberal views might just cast these cases as falling out of the boundaries of fear. We acknowledge that this is a matter of dispute and are open to the option that cases of experiences directed upon a former danger do not count as cases of fear at all. Be that as it may, as we have already anticipated, we do *not* think that all cases of fearing the past involve the representation of a former danger. Some of them do, while others involve a representation of a past thing as a still-active danger—and the most substantial part of our proposal concerns precisely these cases.

Finally, the example of the parent and Mevina suggests that there is a connection between former dangers, as they are explained by the relative future hypothesis, and non-egocentric, altruistic cases of fear. After all, it is plausible to hypothesize that the strong emotional connection that binds us to our loved ones plays a role here and pushes us to represent a past event as dangerous, even if such an event is not a potential source of future harm for us (or regardless of whether it is) but might have harmed (or did harm) only (or mainly) our loved ones. However, we are not taking a stance on this connection here.

Regardless, there seem to be cases of egocentric fear that involve the representation of a former danger. Typically, they involve memories of past fears, which trigger a new episode of fear in the present. For instance, yesterday you were mugged by a thug who threatened you with a knife. Luckily, you did not suffer any negative consequences. Today, when you are safe at home, the memory of the assault comes back to you. As you remember the episode, a shiver of fear runs down your spine. The encounter with the thug was dangerous because there *was* a possible harm (as the memory of the sharp knife in front of you reminds you) in your future. You know that you are now safe at home and you are remembering and not imagining yourself in the past. Yet, clearly, your memory of what happened yesterday is emotionally charged: you *are* afraid. Plausibly, you are representing your encounter with the thug as a former danger. Thus, cases such as this, too, can be interpreted in terms of the relative future hypothesis. They are then genuine but non-core episodes of fear.[13]

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non-core) episode of fear. Also, as it will become clear in the next section, egocentric and altruistic elements are sometimes not easily separable, in real life cases at least.

[13] We are grateful to an anonymous referee for having suggested to us emotionally charged recollection as a typical case of egocentric former danger. Notice that there is a difference between these cases of fear involving memory, whose intentional structure is captured by the relative future hypothesis, and others still involving memory but in which the role of imagination seems more prominent—we will discuss them in connection with the mental time travel hypothesis (Subsect. 3.4). It is of course possible that one begins with a memory tainted

## 3.3. Still-Active Dangers (I): The Partial Grounding Hypothesis

We turn now to still-active dangers. Let us begin with the following example. Suppose that you have made a very hazardous investment. You hear that the stock market has dropped at the opening today, and you are afraid that the stock you bought is involved in the drop, but at the moment you have no access to the details of the situation. Although the drop of the stock market and your loss of money (if it has happened) are in the past, it seems obvious that the prospect of the *problems that will ensue from the loss* plays a crucial role in making you afraid of what might have happened in the morning. Clear cases of still-active dangers such as this one are not problematic for the idea that fear is future-oriented, assuming the 2D framework: even if the danger (the topic) is past, its possible relevant harmful effects (the target) lie in the future—and that is perfectly in line with what our framework predicts.

However, not all cases of still-active danger are so easily tractable. Consider the following example. Sarah learns about a plane crash that happened two hours ago, and she is afraid that her mother was on that plane (readapted from Roberts 2003; a similar case is also discussed by Davis 1987). In this case, the danger (the topic) is the fact that Sarah's mother could have been on the plane, while the harm (the target) is the fact that Sarah's mother might have been seriously injured in the accident or might have died. It is not implausible that Sarah has some altruistic, non-egocentric feeling toward her mother, like Mevina's parent toward their daughter. However, it is also plausible to think that this is not the end of the story and interpret Sarah's fear as involving some egocentric elements, too, since what might have happened to the mother relevantly affects Sarah's future. If so, the crash of the plane is not merely a former danger, but it is clearly a still-active danger.[14]

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with fear and ends up imagining themselves as presently in a dangerous situation (thereby undergoing a more core fear episode).

[14] As anticipated (see footnote 12), at least in real life cases, it is often hard to disentangle the egocentric and the altruistic element. After all, Sarah's concerns for her own future are not easily separable from (but are in fact plausibly related to) (a) the fact that it's her *mother* that might have been involved in the crash and (b) the *severity* of the consequences her *mother* might have suffered from the crash. Ultimately, we think that labelling a case as egocentric or altruistic is useful mainly for practical purposes and for the sake of simplicity, to signal what is the prevalent ingredient, given a certain description of the specific case. Also, we believe that such a prevalence is largely an empirical matter, to be determined case by case and not independently of the description one offers of the case itself.

Insofar as Sarah represents what might have happened to her mother as still dangerous, a further ingredient intervenes. More precisely, Sarah appraises as dangerous the fact that her mother was on the plane in virtue of

(H1)        Representing the harmful consequence that she might (have been injured or) have died; *and*

(H2)        Representing some further consequence of this for her future life—e.g., Sarah might have to live without her mother for the rest of her life, in case she is dead; or Sarah's father might be seriously affected by the loss; or again Sarah herself or her mother/father might have to deal with very unpleasant consequences, in case mother has been seriously injured.

Also, Sarah represents (H2) not just as a consequence of (H1), but as a relevant consequence of the envisaged circumstance of her mother's being on the plane—a projection in the future of the harmful consequences of that fact (if that has happened).

We maintain that many cases of still-active dangers have the same structure. Awareness of the possible harm an X might have already caused in someone's past, alone, is not enough—it might suffice to ground a representation of a former danger but it only *partially grounds* an appraisal of X as still dangerous. To have a *full ground*, and hence a representation of X as a still-active danger, something else must intervene—that is, a representation of some further possible future harmful consequences in someone's future, considered as still being strongly tied to X. In short, in this type of case, a subject is not only aware of the harm that X might have already caused but also envisages a further possible harm in their future, which is yet to come but still tied to X.

We call this the *partial grounding* hypothesis. The cases captured by this hypothesis, such as the plane crash example as described right above, are not cast as non-core cases of fear. By contrast, they are very close to core, if not perfectly core, cases. The only difference is that the appraisal of dangerousness is *partially* grounded in the past harmful consequences of the dangerous event. However, this should not be too much of a concern. First, it largely depends on the fact that we are dealing with dangerous events that are located in the subject's past—as such, they are likely to have their most immediate consequences still in the subject's past. The real question is whether those consequences are sufficient to ground the subject's appraisal of events in the past as still dangerous, which leads us to the second point: the partial grounding hypothesis maintains that they are not sufficient—their role is important but not exhaustive.

The further future harm then is crucial to secure the full ground, and hence the detection of a still-active danger. So as in core cases, the harm in the future of the mental episode plays the crucial role.[15]

The partial grounding hypothesis allows us to explain the difference between the scenario that we have discussed—in which Sarah knows that the plane crashed but does not know whether her mother was on the plane—and another one, close but slightly different, in which Sarah *knows* that her mother was on the plane that crashed but does *not* know whether she is dead. Only in the first scenario it seems correct to say that Sarah is afraid that her mother was on the plane. In the second scenario, it seems more appropriate to say that Sarah is afraid that her mother died. More to the point, the second scenario seems to be one in which the only relevant harm is in the future of the fear episode. If Sarah appraises the possible death of her mother as dangerous, then she is plausibly already considering the likely *future* harmful consequences of her mother's death: the sorrow for her loss, the loneliness, etc. Whereas, in the first scenario, at least some harmful consequences are in the past. The second scenario is more similar to the unproblematic case of the dangerous investment that we have discussed at the beginning of this subsection, although of course it may involve altruistic elements.

According to the partial grounding hypothesis, an event in the past is appraised as dangerous in virtue of envisaging *both* a harm in the past *and* a harm in the future with respect to the fear episode itself. More precisely, Sarah's fear is grounded in the envisaging of two kinds of possible harmful consequences of the circumstance in which her mother might have found herself. In the first scenario those are:

| | |
|---|---|
| (Harm-in-the-past) | Mother is dead; |
| (Harm-in-the-future) | I (and/or the people I care about) will suffer as a consequence of the death of the mother. |

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[15] One might suggest that cases like these help us see that the element of projecting further harmful consequences of the dangerous event in the future is, in fact, always there and always contributes to ground the attribution of dangerousness—it is just less evident in those cases in which the immediate harmful consequences are clearly in the future. This is not what the partial grounding hypothesis explicitly claims, but one might further develop the hypothesis in this direction.

Sarah's present fear episode is partially grounded in her envisaging (Harm-in-the-past), and partially grounded in her envisaging (Harm-in-the-future), and fully grounded only in her envisaging both.[16]

## 3.4. Still-Active Dangers (II): The Mental Time Travel Hypothesis

There is at least another way of representing something in the past as still dangerous, and not as merely containing a former danger. To illustrate it, let us build up a little narrative for the example of the plane crash.

> Suppose that, while listening to the news, Sarah learns that an American Airlines plane to New York crashed two hours earlier in a terrible accident. She knows that her mother was flying to New York today, but cannot remember whether she was flying with American Airlines or another company. So, Sarah does not know whether her mother was on that plane. However, she wonders about this and gets worried. In particular, at some point, she starts considering the scenario in which her mother was on the plane and starts imagining, quite vividly, her mother seated on the plane, the moment of the accident, the wounded passengers and, among them, her mother. Sarah now visualises her mother lying in a hospital bed and her father crying. The mother might be dead— Sarah now visualises the funeral, her father's sorrow and thinks how empty their lives will be without her mother; or the mother might not be dead, but she might still be seriously injured—Sarah now visualises their mother in a wheelchair; and so on. In other words, Sarah gets imaginatively engaged with the thought that her mother was on the plane that crashed, figures at least some of the possible (bad) consequences of that fact and becomes afraid that her mother was on that plane.

This seems a perfectly plausible narrative for our example. The *mental time travel* hypothesis submits that something like that happens in at least some cases of fearing the past—

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[16] Notice that, in principle, the harm in the past of the subject and the further harm in the future might give different quantitative contributions to grounding the attribution of dangerousness. The different ratios between them might be a factor that determines whether an episode of fearing the past is closer to a core case or to a non-core case. (Our example seems to be a case in which the two harms give at least an equal contribution.) Also, notice again that both egocentric (the sadness of a life without mother, etc.) and non-egocentric (being afraid *for* mother's wellbeing, etc.) elements seem to be involved (and to be strictly related, if not intertwined).

specifically, those that are phenomenologically very vivid, so vivid that they are to be considered core cases of fear.[17]

To spell out this proposal more theoretically, as it is described right above, the plane crash case can be accounted for in terms of a psychological mechanism in which two factors play a crucial role: (i) the epistemic condition of the subject (the subject does not know whether what they represent as dangerous has actually happened) and (ii) a strong imaginative engagement with the possible scenario the subject is contemplating. More precisely:

(a) Sarah considers the (epistemically) possible world in which, at $t_1$, her mother is on the plane that crashes at $t_2$;

(b) Sarah considers that world as *actual* and self-locates in that world, not only with respect to a spatial point of view, but also with respect to a temporal point of view;

(c) In virtue of (b), Sarah represents the fact that her mother is on the plane not just as actual, but as something that is happening *now* (so, Sarah represents that her mother *is* on the plane);

(d) Thus, Sarah represents the harmful consequences of their mother's being on the plane, as consequences in *her* future, given that she knows that the plane *will* crash.

In short, the idea is that the combination of the epistemic condition of the subject and the imaginative process delivers something like a 'linear transformation' on the subject's timeline of the topic-target pair: the topic and the target are now represented as being in the present and in the future of the subject, respectively. Thus, due to such linear transformation, according to the mental time travel hypothesis, at least some episodes of fearing the past have exactly the

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[17] Strictly speaking, mental time travel is understood as 'the faculty that allows humans to mentally project themselves backwards in time to re-live, or forwards to pre-live, events' (Suddendorf & Corballis 2007: 299). The capacity of mentally travelling towards the past has been typically explained by philosophers and psychologists in terms of episodic memory, while the capacity of mentally travelling towards the future is typically explained in terms of imagination (see, e.g., Tulving 1985; 2005; Michaelian 2016; Michaelian, Klein, & Szpunar 2016). If we stick to this, then what we are describing here is not (or not obviously) a case of mental time travel. For Sarah does not mentally travel back in time thanks to the exercise of her episodic memory—in fact, she is not remembering at all. This is correct. However, here we use 'mental time travel' in a looser and less technical sense—and admittedly a bit sloppily—mainly due to lack of a better label. What we have in mind is the psychological mechanism described in the rest of this section. Whether or not such a mechanism counts as a genuine case of mental time travel strictly understood is a further question that we do not want to address here.

same structure as core cases. The attribution of still-active dangerousness to a past event, which has harmful consequences in the past, is explained by the psychological mechanism sketched out above. This also squares nicely with the phenomenological vividness of these cases.

Both the partial grounding hypothesis and the mental time travel hypothesis are viable options for the 2D framework, which is not forced to choose between them. In fact, we submit, they should be both integrated in the 2D framework and used to explain different cases of fearing the past, depending on how close (or far) they are to core cases. Those cases that are quite vivid and very close to core cases, but still not perfectly overlapping with them, can be accounted for in terms of the partial grounding hypothesis. The maximally close to core cases of fearing the past—the ones that perfectly overlap with and reasonably count as core cases— can be accounted for in terms of the mental time travel hypothesis. The same applies to the plane crash example: depending on how vivid and close to core one wants to describe it, one might choose one hypothesis or the other to account for it. The final step is to integrate the relative future hypothesis: it can be used to account for those cases of fearing the past that are non-core and in fact quite far from being core.

We conclude this subsection with a quick discussion of two types of cases that plausibly rely on a similar psychological mechanism.[18] The first is the case of *reconsideration* of past events. When engaged in episodic memory, we can think of a past event that we did not consider dangerous (or not very much so) at the time and realize (due to knowledge of certain factors that we gained in the meanwhile), or come to believe (due to change in contextual factors, such as a different mood) that much more harmful consequences *could have happened*. This may engender a concurrent fear episode. The second is the case of *imagined scenarios*. When we consider possible alternatives, or in situations of mind-wandering, we may envisage states of affairs that we recognize as dangerous. These situations, too, may come emotionally charged with fear.

The mental time travel hypothesis can be used to explain how both cases fit the 2D mold, and thus how they retain a constitutive link with future-orientation. When you remember something that happened to you in the past and realize that you have been in a much more dangerous situation than it seemed at the time—for example, because you now understand that you came very close to losing your own life—you do *not* necessarily undergo an episode of fear. You may cool-headedly come to believe that, and move on. However, you may also find yourself in the grip of fear. The mental time travel hypothesis makes a plausible prediction in

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[18] We are grateful to two referees and one editor of this journal for having drawn our attention to those similarities.

distinguishing the cool-headed case from the emotionally charged one. When you are in the grip of fear while considering a dangerous situation in your past, the possible harm connected to the dangerous situation is very vivid in your present imagination. The hypothesis is that what makes the situation scary, and not just dangerous in the abstract, is that you envisage a harm as if it was in *your* future now.

Something similar applies to the case of mind-wandering and imagined scenarios. One might consider dangerous hypothetical scenarios cold-bloodedly; but one might as well experience fear while going through those scenarios—and perhaps because of that. The apparent difficulty, in this type of case, is that there does not seem to be a clear connection between the scenario one is entertaining and one's temporal location—after all, in this case, one is not reconsidering an episodic memory about one's own past; rather, one is merely contemplating a possibility. For example, suppose that you are daydreaming being a different person, in a radically different world. If the intentional content of your mind wandering is just a fantasy, how can it be what you are afraid of?[19] Our explanation, in terms of mental time travel (broadly understood), is: the abstract speculation of what could happen to you *becomes* scary as soon as you envisage the harm in *your* actual future, thereby envisaging the danger connected to it as one that is in *your* world (and possibly in your present).

## 3.5. Taking Stock: The 2D Account of Fearing the Past

To wrap up, the account we propose emerges as a result of the integration of the different hypotheses we have put forward, each of them accounting for the different types of cases we have distinguished along the way. Such an account is 2D, insofar as it uses the 2D framework to describe and make sense of those cases. It constitutively accepts and exploits the articulation of fear's temporal orientation into two different dimensions, the topic and the target, as well as its being inherently future-oriented in the sense specified in Section 2.

The starting point is the distinction between the former dangerousness of an X and the still-active dangerousness of an X located in the past. Representing the former or the latter, we maintain, crucially depends on whether and how a representation of a possible harm in the subject's future grounds the appraisal of dangerousness that constitutes the experience of fear one undergoes. This makes such an experience more or less structurally continuous with

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[19] Notice that a similar question may be asked also with respect to cases of fear in fiction fruition or make-believe scenarios. However, we set these cases aside here, and thus we do not want to suggest that the same explanation we propose for mind-wandering cases should be adopted for fictional cases, too.

paradigmatic cases of fear, thereby delivering differences in the phenomenology one experiences.

We acknowledge that in *some* cases the target is not in the future of the subject. These are cases where a former danger is represented. However, first of all, the local futurity of the target still plays an important role. Secondly, our account explains these cases in a principled way, highlighting what they retain of paradigmatic cases of fear and *how* and *why* they are non-core, but quite borderline. Finally, our account stresses that they are just a *subset* of the cases of fearing the past—but *not all* of them. So, our proposal is not *ad hoc*, insofar as it does not treat every case of fearing the past as non-core, which would be dubious and suspect.

In the other cases, something in the past is appraised as a still-active danger in virtue of the subject's envisaging a possible harm in their future along the lines of what happens in more familiar and paradigmatic cases of fear—for example, when one is afraid of a dog. However, some further distinction is still to be drawn here. Sometimes, such an envisaging is easily explained by the fact that the relevant harmful consequences of the thing appraised as still dangerous all lie in the subject's future (e.g., the hazardous investment case). So nothing else must be added to the basic structure of the 2D framework. These are clearly core cases and pose no serious threat. In other cases, a psychological mechanism is at play of the sort we have hypothesized in the case of the mental time-travel hypothesis. When that happens, we predict, the subject undergoes an experience that is maximally close to a core-case. In yet other cases, the subject's appraisal of dangerousness of an X in the past can be grounded in the joint awareness of the past and some further future harmful consequences of X (partial grounding hypothesis). These cases are importantly similar to core cases, though structurally slightly different. Hence, we predict a corresponding slight difference in their phenomenology.

The futurity of the target relative to the subject's location is then the crucial factor that explains the attribution of dangerousness, even when the topic is in the past. In fact, it is what makes sense of one's undergoing a very intense and vivid experience of fear. When it is there, we have an experiential appreciation of something as a still-active danger, and one undergoes a core, or very close to core, case of fear. When it is not there, instead, some element of that fear-ish experiential appreciation remains, but in a somewhat impoverished and less vivid way.

This is our reply to both the challenges individuated at the beginning of this section, the restricted and the unrestricted one. We have shown how cases of fearing the past are accounted for by the 2D framework. This replies to the Restricted Challenge. Moreover, by having made clear what grounds the appraisal of dangerousness in those cases, we have provided a principled explanation that makes full sense of how and why we can be genuinely

afraid of the past, holding fixed an understanding of fear as a danger-sensitive emotion. This replies to the Unrestricted Challenge. Importantly, our proposal does that without denying that the dangerous thing has had relevant consequences in the past. The core of our suggestion is not denying that the X that one fears might have already harmed something or someone—we accept that. Rather, our suggestion is: to be the object of one's fear in a fully-fledged sense, an X must be appraised as still dangerous—otherwise, one's experience still counts as fear but not of the paradigmatic sort. To experience an X as still dangerous, the subject must somehow still envisage some possible harm that X might cause in their future—regardless of whether this happens in the way described by the partial grounding hypothesis or in the way described by the mental time travel hypothesis. In this sense then fear is still inherently future-oriented, despite its being about something in the past. And such an inherent future-orientation is crucial to explain the possibility of fearing the past.

## 4. The 2D Framework Is the Best Option

What we have said so far establishes (i) that cases of fearing the past can be accommodated and predicted within the 2D framework, and (ii) that the latter has an *explanation* to offer of how and why fear of the past can emerge. In this section, we are going to argue that other options on the market—and in particular the view that we will label *indifferentism*—do not provide us with such an explanation. In other words, they do not reply to the Unrestricted Challenge. Our 2D framework is thus superior to them and hence to be preferred.

Davis (1987: 300) seems to treat cases of (putative) past-directed fear as cases of anxiety, in that the subject is not concerned about a future harm but about a possible past tragedy. However, as we have suggested, while it might be true that in *some cases* no harm is envisaged in the subject's future, this does not have to be true in *all* cases: the subject can be concerned about something in the past and still be aware of some further possible harm in the future in the ways we have already sketched in the previous section. Notice that, unlike Davis, we can say this precisely because we model fear's temporal orientation following our 2D framework, which does not tie the future-orientation of such an emotion to the temporal location of its intentional object. If our proposal is on the right track, then there is no reason to deny that fear can be about something in the past to defend its future-orientation.[20]

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[20] See also the reasons we put forward at the end of Subsection 3.1.

Prinz (2004) and Roberts (2003), instead, make a different move: they accept that we can be genuinely afraid of the past and reject fear's inherent future-orientation. Actually, as already pointed out (beginning of Section 3), they appeal to cases of fearing the past—such as the plane crash—to argue against fear's inherent orientation towards the future and, more generally, against *any* inherent temporal orientation whatsoever. The idea is: since in those cases the object of one's fear is in the past, in those cases fear *is* temporally oriented towards the past; therefore, fear has no exclusive relation with the future (or the present)—in fact, it can be indifferently oriented toward the present, the future or the past. Let us call this view *indifferentism.*

First of all, it is to be remarked that the indifferentist line of reasoning, once again, presupposes that the temporal orientation of fear uniquely depends on the temporal location of fear's intentional object. However, the adoption of the 2D framework blocks the inference at work in that reasoning, insofar as it denies that fear's temporal orientation is uniquely determined by the temporal location of the intentional object. Given that, merely acknowledging that one can be afraid of something in the past does not *per se* force us to drop fear's inherent future-orientation.

Nonetheless, at this stage, it is legitimate to ask what are the reasons to prefer our proposal to indifferentism, since the latter allows for cases of past oriented fear and it is simpler. In short, our reply is that our 2D account has an *explanatory advantage* over indifferentism—and that is what makes it superior, and hence preferable, to the indifferentist option. While our account explains how and why we come to be afraid of the past, indifferentism merely acknowledges this as a brute fact about fear without explaining it. This is a first point in favor of the 2D framework—appeal to brute facts should be avoided, if an alternative explanation is forthcoming. Moreover, as argued in Subsection 3.1, any view of fear owes us a reply to the Unrestricted Challenge. That is, it should explain (or explain away) the possibility of fearing the past, given the strict link between fear and dangerousness. Our proposal does that; indifferentism does not. In addition, at least *prima facie*, it is not easy to see how the indifferentist would provide such an explanation, given that they programmatically reject any inherent connection between fear and future, which instead turned out to be crucial in our proposal. Notice that bringing in such a connection to adopt one of the hypotheses suggested in Section 3 would not do: it would immediately come down to embracing the 2D framework, which is presupposed by those hypotheses.

One option available to the indifferentist might be dissociating fear from dangerousness—or, at least, loosening the strong tie that keeps them together. For example,

Roberts (2003: 193–94) suggests that the formal object of fear does not have to be construed in terms of dangerousness, but as *something aversive that is still a possibility*. So, back to our example, Sarah is afraid that her mother was on the plane that crashed two hours earlier because she represents that state of affairs (something negative or aversive) as still possible—perhaps, due to her epistemic situation. This counts as an attempt to explain how come that we fear the past. However, it is still not satisfying.

First, insofar as it forces us to revise the nature of fear and drop the intimate relation between fear and dangerousness, this is not a proper reply to the Unrestricted Challenge. The latter invited us to explain the possibility of fearing the past, *given* that dangerousness is the formal object of fear, and not by rejecting that assumption. Perhaps, that would be a legitimate move to make if no other option were available. However, another option *is* available—namely, the 2D framework, which accounts for fearing the past without having to drop the idea that dangerousness is the formal object of fear, and hence without revising the nature of such an emotion.

A second, independent reason not to be satisfied is the following. Consider this report:

(1)             Sarah is afraid that her mother was on the plane that crashed two hours ago.

(1) is ambiguous between two interpretations:

(1*)           Sarah represents that her mother was on the plane that crashed two hours ago (a negative situation) as still possible;

(1**)          Sarah represents that situation as a still-active danger.[21]

(1*) and (1**) report on two different mental states. The indifferentist proposal under consideration is not able to tell us what makes (1*) and (1**) two different states. In fact, if we stick to that story, we should expect to have no ambiguity at all and just one mental state, since the nature of fear is to represent something negative as still possible.

Moreover, once the disambiguation is in place, it becomes highly disputable that it is (1*), as opposed to (1**), that captures a genuine experience of fearing the past. For, in general, it is not clear why representing an aversive possibility should uniquely characterize episodes

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[21] Importantly, the ambiguity is not just a theoretical posit, but seems to be confirmed by our ordinary linguistic intuitions.

of fear, given that such a representation seems to be involved, for instance, in cases of negative hope or cold-blood evaluations of negative scenarios as well—which might be connected to, but are not one and the same thing as, experiences of fear. This discloses a wider problem, as it calls into question the legitimacy of the move of construing fear's formal object in terms of aversive possibility as opposed to dangerousness. Such a move forces us to accept a (highly) disputable inflation of what counts as genuine fear, thereby failing to provide us with a good criterion for distinguishing between different types of mental episodes. So, as long as it proposes to loosen the connection between fear and dangerousness, indifferentism seems doomed to give an incorrect account not only of cases of fearing the past, but also of the nature of fear-experience as such.

By contrast, the 2D framework does not generate these issues. It acknowledges that, and explains how, it is possible to appraise something in the past as dangerous. On these grounds, it does not inflate the boundaries of genuine fear; nor does it conflate different types of mental episodes. On the contrary, it predicts the ambiguity of (1) and provides us with a clear criterion to test when the right interpretation of (1) is (1*) or (1**): if a subject S is genuinely afraid of X, then (a) S envisages the future harmful consequences of X, and (b) this grounds S's appraisal of X as dangerous—and (1**) is the right interpretation of (1). Otherwise, S is *not* undergoing a genuine experience of fear—and (1*) is the right interpretation of (1).

Moreover, in case S is experiencing genuine fear, the 2D framework is able to make even more fine-grained distinctions and predictions. If the harmful consequences are represented as being in the past of S (relative future hypothesis), S's fear is genuine, but does not qualify as core. Instead, if they (or at least some of them) are represented as being in the future of S (partial grounding hypothesis or mental time travel hypothesis), then S's fear is genuine and does qualify as core (or very close to core).

To conclude, the moral that we draw is that either indifferentism does not explain how we can be afraid of the past, but accepts it as a brute fact, or provides an unsatisfying, and arguably incorrect, explanation. So, we maintain that indifferentism has less explanatory power than the 2D framework. Hence, the latter is to be preferred.


# 5. Conclusion

In this paper, we have argued that at least in some cases we are afraid of the past, but this does not conflict with an understanding of fear as future-oriented, provided the right understanding of such a future-orientation. On such an understanding, fear's temporal orientation is construed as two-dimensional and not uniquely determined by the temporal location of fear's intentional object. While the topic of fear can be in principle in the present, in the future or in the past, its target is always in the future relative to both the topic and the subject (with some qualificatons, see Subsects. 2.2 and 3.2). Such a model, we have argued, not only accommodates but also offers a principled explanation of how and why we come to represent as dangerous things that are in the past—which might instead seem *prima facie* puzzling, as we have pointed out: envisaging some future harm is crucial to ground the attribution of dangerousness involved in experiences of fear. So, we can be afraid of the past, only if (and arguably because) we target the future in the sense we have specified in the paper. On our account, then, the future-orientation of fear plays an important explanatory role even in cases of fearing the past. This is why it is needed and why our account is more explanatory than, and hence preferable to, the other alternative options.

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