Reasons for Fear: Against the Reactive Theory of Emotion

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Abstract: It is often claimed that fear has an important epistemological function in making us aware of danger. Reactive theories challenge this view. According to them, fear is a response to real or apparent danger. In other words, real or apparent danger is the reason for which we experience fear. Thus, fear depends on awareness of danger instead of making us aware of danger. Proponents of the reactive theory have appealed to phenomenological and, most prominently, linguistic observations to support their views. In particular, they argue that how we talk about the objects of fear supports the view that fear is a response (rather than a perception), and that how we talk about reasons for fear supports the view that reasons for fear are necessarily evaluative (about danger). Building on systematic linguistic observations in the form of corpus analyses and survey data, we argue that how we talk about the objects of fear and how we talk about reasons for fear do not support the reactive theory. Indeed, these linguistic considerations undermine the reactive theory. Most importantly, they suggest that there are non-evaluative reasons for fear. This is good news for rival theories, like perceptual theories, which hold that emotions have epistemic value in contributing to knowledge of evaluative properties such as danger.

1. Introduction

Fear is sometimes irrational. It can be triggered by harmless things, such as innocuous spiders, and make us waste mental and physical resources in situations that do not merit them. Because of this, it is tempting to consider that fear has little value. Against this negative view of fear, philosophers have argued that fear has an important epistemic function. When things go well, fear would allow us to be aware of dangers and act accordingly, either because fear itself is a representation of danger, and/or because it leads us to generate beliefs about danger. Given this, fear would have an important epistemic value in spite of the fact that it sometimes misleads us in believing that something harmless is dangerous. This view finds support in perceptual theories of emotion (e.g., Prinz, 2004; Tappolet, 2016), as well

as empirical studies on the relation between emotion and evaluative judgment (e.g. Díaz & Prinz, 2023).

The view that fear has an epistemic value has been questioned recently. Advocates of the so-called reactive theory (Mulligan 2010; Müller 2019; 2022; Massin 2023) have argued that emotional episodes depend on prior non-emotional grasps of values. Because of this, emotions would depend on the awareness of value instead of making us aware of value. What is crucial is that on such an account the prior grasps of value provide agents with motivating reasons for their emotion. Thus, when you feel fear, what happens is that you respond to (a prior grasp of) danger, which is the reason in light of which you feel fear.

If reactive theorists are right, fear is irrelevant to our knowledge of danger. We could be devoid of fear and be as capable of grasping danger, because that grasp is not made nor facilitated by fear itself, but by a previous non-emotional state. In the reactivist picture, fear could still be valuable in prompting behaviors that help us avoid danger, but it would not contribute to our knowledge of danger. In other words, fear could have practical value but not epistemological value concerning danger. This goes against perceptual views of emotion and, more broadly, epistemic sentimentalism about values, i.e. the claim that emotions contribute to our knowledge of danger and other ways in which things can be (morally) good or bad.

In this paper, we raise a number of difficulties for the reactive theory of fear. In section 2 we present the reactive theory. Afterwards, we consider the main arguments in support for a reactive theory of fear. We separate those in two sections. Section 3 considers arguments for the claim that fear is a response. We cast doubt on these arguments while stressing that, even if fear is a response, it can have epistemological value in making us aware of danger, as it needn't be a response to danger. Section 4 considers arguments for the claim that fear is a response to danger. We argue that the linguistic considerations adduced by reactive theorists to support this claim actually support the opposite conclusion. Namely, that there are non-evaluative reasons for fear. Overall, our arguments speak against the reactive theory of fear and in favour of fear's epistemological significance.

Our discussion focuses on the emotion of fear. What justifies this choice is that fear is not only a paradigmatic emotion that has been extensively studied, but is it one that has figured prominently in recent debates for and against the reactive theory. Furthermore, while the examples used in these debates make it clear that fear is associated to danger, it is not so clear what values are associated to other emotions. But even though we focus on fear, we see no reason why our conclusions could not be extended to other kinds of emotions.

2. The reactive theory

The central idea shared by advocates of the reactive theory is that emotions are reactions or responses that depend on non-emotional awareness or apparent awareness of value. Kevin Mulligan writes that emotions "are reactions to the grasp or apparent grasp of value." (2010, p. 485) Similarly, Jean Moritz Müller holds that "(...) emotions are consequent upon an apprehension as of value" (2019, p. 73). In Olivier Massin's terms, "emotions toward some objects are sui generis attitudes which arise in reaction to this object being presented as valuable." (2023, p. 792). Grasps, apprehensions, and presentations as of value are naturally taken to be states with evaluative content and can therefore be characterized as representations. Thus, reactive theories agree that emotions are dependent on prior non-emotional representations of values.

However, there are different views as to what these representations of values consist in. Mulligan (2010) follows Max Scheler (1973) and Dietrich von Hildebrand (1916) in holding that these prior states are feelings of values. The problem with this account is that appears to leave one with a dilemma. Either feelings of values are nothing but emotional experiences or they are mysterious sui generis kind of states (Deonna & Teroni, 2012; Mitchell, 2019, 2021; Müller, 2019; but see Naar, 2023). Because of this, Müller rejects the idea that emotions depend on feelings of values and argues that emotions are based on concern-based evaluative construals. Note that this is surprising, since as Müller himself notices, concern-based evaluative construals are nothing but emotions according to Robert Roberts (2003). For his part, Massin advocates a pluralist conception. Emotions can be responses to nonconceptual perceptions of values, but also evaluative beliefs or judgments, intellectual evaluative intuitions, evaluative rememberings, evaluative imaginations and suppositions, among others.

Reactive theorists further hold that the values (and disvalues) at stake are what are often called the "formal objects" of emotions, i.e., the evaluative features in which emotions can be assessed as correct or incorrect.¹² In the case of fear, the formal object is generally considered to be dangerousness (or else being threatening, harmful, or fearsome – for the sake of simplicity, we will mostly talk about dangerousness, but see Section 4). Fear can be assessed as correct or incorrect depending on whether what we are afraid of is dangerous or not. The reactive theorist's claim is that we need to represent something as dangerous in order to be afraid of that thing. Suppose your fear is based on seeing a tiger leaping at you, its

¹ But see Massin 2023 for a different definition, according to which the formal object is what the intentional object of an emotion must purportedly exemplify for being an emotion of that kind.

² Mulligan (2010) is an exception here, for he accepts that feeling of generosity can be the prior grasp for atdmiration.

sharp teeth ready to tear you apart. According to the reactive theory of fear, you first see the tiger and non-emotionally represent it as dangerous, and then you respond with fear to this apparent danger. Importantly, this is not merely a claim about what sometimes or even typically happens in fear. Reactive theorists posit that a state could not be fear if it were not for the prior non-emotional representation of danger. After all, there would be nothing to respond to otherwise.

What is crucial to understand is that this dependence claim is paired with a claim about reasons. The representation of something as dangerous is not only what your fear depends on, it also provides you with a reason to experience fear. Accordingly, in the context of the reactive theory, the terms "reaction" or "response" are not understood in a merely causal sense. Saying that emotions are reactions does not mean that emotions are *caused* by something, but that emotions are experienced in light of something. In other words, the claim is that representations of value provide motivating reasons for emotions, i.e., reasons for which or in light of which we experience an emotion. Thus, Massin holds that "(t)o react to an object being apparently valuable (...) is, furthermore, to adopt an emotional attitude towards that object for that very reason. To fear the tiger in reaction to its being apparently dangerous is to adopt that attitude for that very reason." (2021, p. 9, italics in the original) In the same way, Müller (2019) claims that "the reason for which we have an emotional feeling always include an apparent exemplification of the corresponding formal object by its target." (2019, p. 69) Again, the claim is not merely that emotions can sometimes be responses that we have in light of motivating reasons of the kind postulated. To be an emotion of fear, a response has to be adopted for the reason that something is apparently dangerous.

In sum, the reactive theory as applied to fear can be captured by the two following claims:

(RT1) Fear of x necessarily depends on a prior non-emotional representation of x as dangerous.

(RT2) Fear of x is a response for which x being apparently dangerous is necessarily the motivating reason.

We disagree with both claims. Not because we think that fear cannot depend on prior non-emotional representation of danger or cannot be motivated by (apparent) danger, but because we believe that this is not always the case. We agree that fear occasionally depends on non-emotional representations of danger. Fear can depend on a belief concerning danger, such as when you feel fear because you believe that you are about to be attacked by a dangerous tiger. But we disagree that there needs to be a prior non-emotional grasp of danger in each case of fear. Fear, we hold, can depend on non-evaluative representations. For example, the belief that a tiger is about to attack you. Concerning the second claim, we contend that, if the concept of motivating reasons can be applied to emotions, the reason for which we fear something can be that this thing is apparently dangerous. However, we disagree with the claim that motivating reasons for emotions need to be evaluative. For example, that a tiger is about to attack you can be sufficient reason for fear.

Let us start by considering the arguments in favour of the thesis that fear is a response.

3. Is fear a response?

Reactive theorists hold that their account captures the relation between emotions and their objects better than perceptual theories. One of the main problems with perceptual theories, according to Müller (2019, chap. 3, pp. 58-62), is that emotions involve a movement from the individual who feels the emotions towards their objects, while the movement that characterize perceptions has the opposite direction. Emotions are responsive, but perceptions are receptive. This, Müller argues, is suggested by a number of linguistic and phenomenological observations.

Let us start with arguments that appeal to linguistic observations. Müller claims that how we ordinarily talk about the objects of emotion is different from how we talk about the objects of perception, and this reveals a crucial difference between emotions and perceptions. We say that emotions are *directed towards* or *aimed at* things, while it sounds odd to say that perceptions are *directed towards* or *aimed at* things. Similarly, we say that we feel emotions *about* something ("you feel sad about something"), *at* something, ("you feel anger at someone"), or *over* something ("you feel enthusiastic over something"). By contrast, the preposition that we use for perception is "of", such as when we say that we have a vivid perception of the landscape, and it is claimed that "rather than conveying a direction towards an object, 'of' here specifies what is registered" (Müller, 2019, p. 62).

A first problem with this argument is that it fails to fit fear. The most natural way to attribute an emotion of fear involving a tiger is to say "you fear the tiger" or "you are afraid of the tiger". The point to stress is that this is exactly the kind of locution we use to report perception, as Müller himself notes. We say that we see the dog, or that we are (visually) aware of the dog.

In response to this observation, Müller argues that there is nonetheless a difference in meaning, something he claims is shown by the fact that we can replace "of" with "directed towards" or "aimed at", while this is not possible in the case of perception. If taken as a normative claim about how we should talk, claiming that we

cannot say that perception is "directed towards" or "aimed at" simply begs the question against the perceptual theory. If taken as a descriptive claim, it seems true for "aimed at",³ but false regarding "directed towards". Indeed, Google searches⁴ reveal that "directed towards" is sometimes used to specify the intentional object of perception (e.g. "*perception directed towards* the external world", "*perception is directed towards* relationships or patterns, not isolated elements" or "he then sat cross-legged as his *perception was directed towards* the Heavenly Path in the firmament"), and we have no independent reason to believe those are incorrect uses of the locution.

Now, one might worry that expressions such as "perception (is/was) directed towards" are technical expressions mostly found in academic texts. But the same seems true for expressions like "fear (is/was) directed towards", "fear (is/was) aimed at". Google searches⁵ for these expressions suggest that they are mostly found in academic philosophy and psychology sources.^{6,7} Thus, when we say "your fear is directed towards the tiger" or "your fear is aimed at the tiger", not only are we saying something quite unusual, but in fact, we might be communicating something different from simply attributing an emotion of fear involving a tiger. In particular, we might be specifying that fear is like an arrow in that it is directed or aimed at something. It remains to be shown that these locutions are not simply technical ways to say that emotions, like perceptions and beliefs, are intentional states. What seems clear is that these expressions are not common in ordinary language.

A second problem is that even if we have to take these linguistic differences to indicate that emotions differ from perceptions in that they are, in some way of other, responses, it does not follow that emotions depend on evaluative representations. We can indeed say "you feel fear *towards* something", where this

specify the intentional object of fear (e.g. "fear aimed at a minority").

³ Searches conducted on 20.04.2024 for "perception aimed at", and "perception is aimed at" (using scare quotes to get exact matches). Looking at the results, we could not find cases in which "aimed at" was followed by the intentional object of perception. Instead, the locution "aimed at" seems to be mostly used to specify the function of perception (e.g. "Perception *is aimed at* recognizing the cognitive features of the perceived object").

⁴ Searches conducted on 20.04.2024 for "perception directed towards", "perception is directed towards", and "perception was directed towards" (using scare quotes to get exact matches). ⁵ Searches conducted on 01.05.2024 for "fear directed towards", "fear is directed towards", "fear was directed towards", "fear aimed at", and "fear is aimed at", "fear was aimed at" (using scare quotes to get exact matches). Note that results suggest that the locution "aimed at" is mostly used to specify the function of fear (e.g. "Fear *is aimed at* self-preservation"), but also sometimes to

⁶ The same seems to be the case for "fear (is/was) directed at" (searches conducted on 01.05.2024 for "fear directed at", "fear is directed at", "fear was directed at" using scare quotes to get exact matches).

⁷ Furthermore, we could not find a single instance of "fear (is/was) directed towards", "fear (is/was) aimed at", or "fear (is/was) directed at" in the online Corpus Contemporary American English, which contains more than one billion words of text.

might be taken to mark a difference with attributions of perceptions. It could be argued that this marks the fact that in order to be afraid of something, we need a prior grasp, such as a perception or a belief, of that thing. But this grasp needn't be evaluative. You need to see or hear the tiger in order to experience fear of the tiger, but you could well have no evaluative awareness of it. We will consider this issue at length in the next section.

Let us turn to the phenomenological arguments in favour of the reactive theory. Again, Müller (2019, p. 59 sqq.) holds that emotions are felt as if residing in us and targeted at their objects. This "phenomenology of response", as Müller calls it, is seen as involving the taking of position towards an object. In feeling fear, you are not simply registering the danger, you are taking a negative stance towards that object.

One might argue that this conception of emotions makes them too active. When experiencing fear, it is not as if we adopt a position. It is rather that given what we are or seem to be aware of, we are struck with fear. We find ourselves experiencing fear, rather than doing something like taking a stance. Given that fear at least typically comes with a motivation for safety, we will be motivated to do a number of things aiming at safety. Thus, we are likely to run away, hide, fight back, etc., depending on the circumstances. But as such, fear does not seem to be something we actively undertake (but see Müller, 2021 for a discussion).

However, what should be stressed is that, once again, the opponent of the reactive theory could accept that emotions are responses that are in some sense active and directed at objects without being dependent on evaluations of these objects. The thought that emotions are responses is not incompatible with the claim that emotions register values. As Jonathan Mitchell (2019, 2021) argues, one can hold that the emotional response is that through which one represents evaluative properties. Thus, the reaction of fear would not depend on a prior representation of danger. Rather, the response would be that through which one first represent the danger. In Mitchell's terms, "Fear, for example, is not a response to an evaluation, but a self-standing affective evaluation." (2019, p. 719)

In sum, the arguments for the claim that fear is a response are not conclusive, and even if one accepts that fear is a response, it can still be claimed that being a response does not exclude it from being a representation of danger.

4. Is fear a response to apparent danger?

The reactive theory opposes perceptual accounts of emotion, but also the epistemological value of emotion more generally, including fear's epistemological value in making us aware of danger. And to challenge the latter, one needs to show, not only that fear is a response (rather than a perception), but that fear is a response *to real or apparent danger*. In this section, we will assess extant arguments for this claim. For ease of exposition, we will sometimes talk about fear being a response to danger instead of it being a response to *real or apparent* danger, but note that the latter is what we have in mind.

The idea that fear lacks epistemological value is sometimes taken to derive from the very idea that fear is a response, but the argument requires additional premises. Two of them are particularly important. First, we are told that responses are made *in light of* something, i.e. responses have motivating reasons. Second, it is assumed that we respond with fear *in light of danger*, i.e., motivating reasons for fear are necessarily evaluative. Thus, we need to be aware of danger before being afraid, and fear cannot make us aware of danger. This argument can be reconstructed as follows:

- 1) Fear is a response.
- 2) Responses have motivating reasons.
- 3) (by 1 and 2) Fear has motivating reasons.
- 4) Motivating reasons for fear are necessarily evaluative (about danger).
- 5) In order for something to be a motivating reason, the subject has to be aware of it.
- 6) (by 4 and 5)) In order to be afraid, the fearer has to be aware of danger.
- 7) If someone is already aware of danger, they cannot be made aware of it.
- 8) (by 5 and 6) Fear does not make us aware of danger.

In this section, we will assess premise (4) in this argument (but note that one might also want to question premises (1), (2), and (5)). Proponents of the reactive theory have pushed two main arguments for this claim, both linguistic. In this section, we will argue that the linguistic considerations adduced to support that only danger provides reasons for fear (4) actually support the opposite conclusion. Namely, that fear can be experienced for non-evaluative reasons.

4.1. Explanations of fear in terms of danger are common

The first linguistic observation in favor of fear being a response to danger is that we often mention danger when we explain or report the reasons for our fear. More specifically, we commonly use expressions of the form "afraid of [object] because

[object] is dangerous." Note that "because" is sometimes used to report the cause of the fear. For example, if I say that "I was afraid of my neighbors' dog because I forgot to take my anxiolytic medication", I am reporting the cause of my fear. But in other instances, the expression is supposed to report motivating reasons for fear. For example, when I say that "I am afraid of my neighbors' dog because that dog is dangerous", I would be reporting the reasons in light of which I experience fear. One might object that this claim reports the cause of my fear, not a motivating reason. But let us grant, for the sake of the argument, that statements like these concern motivating reasons, and thus support the claim that fear is a response to apparent danger.

Several authors have appealed to the putative prevalence of certain ways to explain our reasons for fear to support the reactive theory. Müller claims that "we commonly explain emotions along the following lines: [...] Peter is afraid that he will lose his job because this likely prospect constitutes a threat for him. If we take such explanations at face value, we thereby recognize the respective pre-emotional construal as affording awareness of value." (Müller, 2017, p. 290). Similarly, Mulligan says that "(a)scriptions of emotions and of their formal objects are typically of the form: x emotes y because of the (dis)value of z [...] In this respect, reasons to feel (emote) behave just like reasons to desire, to act, and to believe. In the most basic cases, emotions neither present nor represent value. Rather, they are reactions to a grasp or apparent grasp of value." (Mulligan, 2010, p. 485).

The problem with this argument is that explanations of the form "afraid of [object] because it is dangerous" are not prevalent, and non-evaluative explanations for fear seem just as common. To defend this, we will present the results of a series of linguistic queries in the Contemporary Corpus of American English (COCA), a corpus that contains more than one billion words of text from spoken language, fiction, popular magazines, newspapers, academic texts, TV and movies subtitles, blogs, and other web pages from 1990 to 2019. The corpus is openly available at https://www.english-corpora.org/coca/, and thus anyone can replicate the results we report here (see footnotes for details about our corpus queries).

Looking at COCA's full collection of texts, do we find that people mention danger when explaining their reasons to be afraid? COCA contains 175 instances of "afraid because",⁸ which arguably report reasons for fear. However, among those 175 instances, only 3 are followed by "danger", similar terms like "threat", "risk", or

⁸ This result was obtained through a simple list search for "afraid because".

"harm", or their derivates (e.g., "dangerous", "threatening", "risky", or "harmful").⁹ These are the 3 instances we found:

I can't imagine that this will be the last time I'm *afraid because* of some *danger* my children face.

My wife is *afraid because* she knows that -- that it's *dangerous*

*She was deathly *afraid because* I guess he apparently *threatened* to go to my parents' house.

One might argue that the last sentence does not show that fear is experienced in light of danger/threat/risk. But even if it does, what we find is that only 1.7% (3 out of 175) instances of "afraid because" in COCA were followed by "danger" and related terms. Crucially, other instances of "afraid because" seem to be specifying non-evaluative reasons for fear. Consider, just as an example, the following three instances:

But I was afraid of him, really *afraid because* he was roaring at me, he was yelling at me.

People were very *afraid because* these shootings were happening on suburban highways during rush hour.

And he was afraid of the place. *Afraid* because he knew it too well; knew how things could turn on you in a heartbeat.

These results suggest that reasons for fear needn't be evaluative. However, one could argue that the searches we performed were inadequate. The ordinary language expressions that Müller and Mulligan mention in their arguments first specify the object of danger (with the expression "afraid of"), and then explain why the subject is afraid of that object (using the "because" connector). Searching for "afraid because" would not allow us to find expressions of this kind. To address this issue, we performed further searches in COCA.

In follow-up searches, we tried to find expressions of the form "afraid of [object] because [object] is dangerous". The results show that, among the 630 instances of "afraid of [...] because" in COCA,¹⁰ only 12 are followed by "danger", "threat", "risk",

⁹ These results were obtained through four collocates searches introducing "afraid because" as the target word/phrase, and "danger*", "threat*", "risk*", or "harm" as the collocates (adding a star allows to search for derivate terms such as "dangerous", "threatening", "risky" or "harmful") among the 9 words to the right of the target phrase. Using "fearsome" as the collocate yielded no results. ¹⁰ This result was obtained through a collocates search with "afraid of" as the target word/phrase and "because" as the collocates, restricted to the 9 words to the right of the target phrase.

"harm", or their derivates.¹¹ Below is the full list, with instances that are arguably irrelevant marked with a star.

If you're *afraid* of getting a real tan *because* of the *dangerous* rays, well, a fake tan never hurt anyone.

*It's irrational to be afraid of tarantulas because they aren't actually dangerous.

*I don't understand... people who are *afraid of* sex. *Because* sex is not *dangerous*.

People were *afraid* of kusiga because of the *danger* of being killed by the king.

*The idea of counterphobia fascinates me. That you could climb mountains because you are *afraid of* heights. Seek out dangers *because* the *danger* holds such fear for you.

*Americans needn't be *afraid of* foreign terrorists, *because* the biggest *threat* to us is our own gubment [government] and their agencies.

*Workers were *afraid* of voicing their complaints both *because* they faced *threats* of violence and because they were afraid of deportation.

These ineffectual people are *afraid* of atheism+, exactly *because* it *threatens* their pretend privileged status on the atheism debate.

In one of these books, Mary Magdalene says to Jesus that " I'm *afraid of* Peter *because* he *threatens* me " " and hates all my sex. "

We Americans are *afraid of* militant Islam *because* it *threatens* our safety and freedom.

Tito is *afraid* of this vitality *because* it *threatens* his ability to control her.

Many people are *afraid of* nuclear power *because* of the *risks* caused by severe accidents.

Once again, even if we count all our results, we find that only 1.9% (12 out of 630) instances of "afraid of [...] because" in COCA are followed by "danger", "threat", "risk", "harm" or their derivates. In other words, among all texts putatively explaining why someone is afraid of something, only 1.9% mention evaluative reasons.

¹¹ These results were obtained by performing four further collocates searches with "afraid of" as the target word/phrase and "danger*", "threat*", "risk*", or "harm*" as the collocates (adding a star allows to search for derivate terms such as "dangerous" or "threatening") restricted to the 9 words to the right of the target phrase, and manually selecting instances which contained the word "because" between "afraid of" and "danger*", "threat*", "risk*", or "harm*". We found no results for the same search using "fearsome" as the target word.

Importantly, other corpus matches for "afraid of [...] because" mentioned nonevaluative reasons. For example:

You can either be *afraid* of it *because* it's so powerful and strong, or you can go stand.

And people who were *afraid* of fire *because* it can kill you.

People were *afraid* of us *because* we were always in numbers and uniforms and marching.

Against reactive theorists' claims, the way we ordinarily explain and express reasons for fear suggests that reasons for fear needn't be evaluative.

In response, one could argue that the few fear explanations followed by "danger" we found in COCA support the idea that fear is a response to real or apparent danger. But remember that the reactive theory does not claim that fear is *sometimes* a response to danger. Instead, it posits that fear is *necessarily* a response to danger. For example, Müller claims that "the object of the feeling could not properly fulfill its role as a motivating reason unless it was apprehended by the subject in suitable evaluative terms" (Müller 2022, p. 4). Ordinary explanations of fear in terms of danger are not prevalent enough to support this view.

Our systematic linguistic observations suggest fear responses are often explained in non-evaluative terms. These in turn suggest that fear is intelligible as a response to non-evaluative reasons, pace Müller. However, proponents of the reactive theory claim that we accept non-evaluative reasons for fear *just because* they imply or presuppose that what they invoke is considered dangerous. In the next section, we will consider their main argument for this claim.

4.2. Non-evaluative explanations of fear presuppose danger

According to the argument we considered in the previous section, the fact that we explain fear reactions by appealing to danger (using expressions like "she is afraid of it because it is dangerous") supports the idea that fear is a response to danger. Against this, we found that these explanations are not prevalent. Indeed, many ordinary explanations of fear appeal to non-evaluative aspects.

However, reactive theorists claim that non-evaluative explanations of fear imply or presuppose danger assessments, and such explanations succeed in making fear intelligible just because of this. Along these lines, Müller states that "explanations such as 'Maria feels glad because of the landscape she is watching' or 'James is afraid because of the approaching dog' do not make the respective feeling intelligible if we suppose that it is felt in light of the scene or the dog simpliciter. We fail to comprehend how these objects could make their subjects feel the way they do unless we suppose that they are in one way or another apprehended by them as good or dangerous, respectively" (Müller, 2022, p. 4)

This reasoning flags the relationship between intelligibility and reasons. Actions or attitudes are intelligible if they can be explained or justified by reasons, and conversely, reasons make actions and attitudes intelligible. Given this link, when reactive theorists say that non-evaluative facts do not make fear intelligible, they are committed to saying that non-evaluative facts do not constitute reasons for fear. In other words, there are no non-evaluative reasons for fear, reasons for fear are necessarily evaluative.

If non-evaluative explanations of fear imply or presuppose danger assessments, the non-evaluative reason explanations we found in COCA would not directly threaten the reactive theory. The relative absence of evaluative explanations would still defuse reactive theorists' first argument *for* the claim that fear is a response to danger (see Section 4.1), but the presence of non-evaluative explanations would not necessarily speak *against* this claim. Indeed, proponents of the reactive theory would reply that those non-evaluative explanations imply danger assessments. But why should we believe that this is the case? What is the argument for the claim that non-evaluative reason explanations of fear imply danger assessments?

According to reactive theorists, we can tell that non-evaluative reason explanations of fear imply danger assessments because it sounds odd to say that one is afraid of something because of its non-evaluative properties and then deny that those properties are dangerous-making. Consider the following examples:

I'm afraid of the dog because it has big sharp teeth, which does not make him dangerous in the least (Massin, 2023, p. 799)

I'm afraid of eating street food because it can cause food poisoning, but food poisoning is not dangerous.

I'm afraid of the cliff edge because it is high and slippery, but being high and slippery doesn't mean dangerous.

Muller (2019, pp. 69-70) and Massin (2023, p. 799) claim that these sentences sound odd because the first part ("afraid of [object] because of [object's property]") implies or implicates that the specified property is dangerous-making, and the second part explicitly denies it. When I say "I'm afraid of eating street food because it can cause food poisoning", hearers assume that I consider what causes food poisoning dangerous, and that's why it sounds odd to follow with "but food poisoning is not dangerous". However, this is not the only possible explanation for why this and similar expressions sound odd.

Another explanation for why the target expressions sound odd is that it is difficult to make sense of someone being afraid of something that they *consider not dangerous*. Note that this is not the same as saying that it is difficult to make sense of someone being afraid of something that they *do not consider dangerous*. Representing something as not dangerous is different from not representing it as dangerous. We believe that reactive theorists' argument trades on conflating these two. The oddness of sentences with the form "afraid of [object] because of [object's property] but [object's property] is not dangerous" shows that it is difficult to make sense of fear directed towards something that is represented as not dangerous, but it doesn't show that it is difficult to make sense of fear directed towards something that is not represented as dangerous.

To recap, reactive theorists have argued that the oddness of expressions like "afraid of [object] because [object's feature], but [object's feature] is not dangerous" show that non-evaluative explanations of fear imply danger assessments, and in turn support the idea that fear is only intelligible as a response to danger. But the oddness of such expressions can be explained in at least two different ways. The expressions might sound odd because:

(a) explanations of fear in non-evaluative terms imply or presuppose that those features are considered dangerous (and the second part of the expression denies it), or because

(b) it is difficult to make sense of fear directed towards something that is considered not dangerous (as the second part of the expression states).¹²

Only (a) supports the reactive theory of fear. But (b) is as valid as an explanation for why the expressions sound odd. Thus, we need additional evidence to favor (a) over (b). In the following, we propose a direct way to test (a), one that doesn't depend on the oddness of certain expressions.

Proponents of the reactive theory claim that explanations in terms of nonevaluative properties like "it can cause food poisoning" explain fear towards the property-bearers *just because* they imply or presuppose a danger assessment (e.g. "what can cause food poisoning is dangerous"). If this is the case, people accept that non-evaluative properties provide reasons for fear *just because* they assume that

¹² There are several possible explanations for why it might be difficult to make sense of fear directed towards something that is represented as not dangerous. It could be that fear itself is understood as a representation of danger, or just that we are commonly afraid of dangerous things. What seems hard to deny is that ordinary understanding of fear is tightly connected to representations of danger (Díaz 2022).

those properties are considered dangerous-making. We tested this prediction in a short survey study.

Participants in the study¹³ were presented with two of the three following statements (in random order):

(Animal)	The fact that an animal has big sharp teeth and is rapidly approaching gives reasons to ¹⁴ be afraid of it.
(Food)	The fact that unhygienic street food can cause food poisoning gives reasons to be afraid of it.

(Cliff) The fact that a cliff edge is high and slippery gives reasons to be afraid of it.

Participants were asked to rate their agreement with each statement using a scale from 1 ("strongly disagree") to 7 ("strongly agree"). After each rating, they were asked to justify their answer (they were asked "Why? Please briefly justify your answer").

If people accept non-evaluative properties (e.g. having big sharp teeth) as reasons for fear just because they suppose those properties are dangerous-making, participants who agree with the statements in our study should mention "danger" or similar evaluative terms when asked why they agree that non-evaluative properties provide reasons for fear. But this prediction was not borne out.

Results show that most participants agree with our statements (see Table 2). That is, most participants agree that non-evaluative properties (e.g. having big sharp teeth) give reasons to be afraid of their property bearers (e.g. an animal). However, when participants were asked to explain why they agree, only a relatively small percentage of them (25 out of 87) mentioned evaluative terms such as "danger", "risk", "threat", "harm", and their derivates (see Table 1). Results (including participants' explanations for their responses) are openly available at https://osf.io/sy3cf/?view_only=5aa3d1a2157643188f0072632ef36023.

 $^{^{13}}$ 51 participants (26 female, 1 non-binary, Mean Age = 41.82, SD = 14.16, Age range 21 – 77) were recruited through Prolific and completed the survey for a monetary payment.

¹⁴ One can argue that the wording we used in our statements ("reasons to") refers to normative reasons, and reactive theorists' claims here refer to motivating reasons. But even if this is true, reactive theorists agree that there is a tight relation between normative and motivating reasons for fear, and that both must invoke danger (Müller, n.d.).

Statement	Mean agreement (standard deviation)	Participant s who agreed (rating > 4)	Danger* mentions	Threat* mentions	Risk* mentions	Harm* mentions	Total evaluative mentions ¹⁵
Animal	6.03 (1.07)	31 / 33	1	2	0	5	8/31
Food	5.30 (1.78)	28/37	0	1	3	1	5 / 28
Cliff	5.84 (1.42)	28 / 32	8	1	3	0	12/28
Total	5.71 (1.49)	87/102	9	4	6	6	25 / 87

Table 1. Results of our survey study.

Most of the participants who accepted non-evaluative reasons for fear did *not* do so because of evaluative considerations. These results suggest that, pace reactive theorists' claims, it is not the case that we accept non-evaluative reasons for fear just because we assume danger assessments. Once again, our systematic linguistic observations both defuse the main premise in reactive theorist's argument and provides support for the opposite claim. Most of the words that participants used when justifying why they agree with the statements in our study were non-evaluative, such as "attack", "sick", or "fall" (see Figure 1). This suggests that fear is perfectly intelligible as a response to non-evaluative properties of its object or, in other words, that there are non-evaluative reasons for fear.

¹⁵ Numbers for participants who agreed with the statements. Among those who disagreed with our statements, only two mentioned evaluative terms. One participant that mentioned "harmlessly" when justifying their disagreement with Animal, and one participant who mentioned "risk" when justifying their disagreement with Food.



Figure 1. Most common words in participants' justifications for their agreement with the three statements in our study. Stopwords (e.g. "a", "the", etc.) and words contained in the statements (e.g. "animal" or "sharp", plus also "fear", "animals", and "cliffs") are filtered out. The size of the word in the image indicates its frequency.

Before closing, we would like to consider a few possible responses to our results. One possible response is that the non-evaluative terms that participants used in their justifications ("attack", "sick", "fall", etc.) presuppose negative evaluations. But this response does not vindicate reactive theorists' claims. Rather than a linguistic argument for the reactive theory, this is a way to make the theory unfalsifiable by linguistic evidence. Indeed, if one can always reply that non-evaluative terms presuppose evaluations, there is no way of providing evidence against the idea that reasons for fear are necessarily evaluative.

One might have complaints about the design of our study. For example, instead of asking participants why they accept non-evaluative reasons for fear and see whether they use evaluative terms in their explanations, one might have wanted us to ask participants whether they agree or disagree with a statement like "[nonevaluative properties] make [property bearer] dangerous". But this would not tell us whether participants accept non-evaluative reasons for fear just because they assume danger assessments. Indeed, participants might agree with a given danger assessment that they were not supposing and wasn't the reason why they accepted non-evaluative reasons for fear. Finally, note that the fact that some participants used evaluative terms in their explanations seems to rule out the possibility that evaluative suppositions are too hard to articulate or, to the contrary, too obvious to be worth stating.

5. Conclusion

We believe our investigations leave the reactive theory unsupported at best, refuted at worst. We have argued that linguistic and phenomenological arguments for the claim that fear is a response are unconvincing, at least in any sense that would exclude fear from being a representation of danger, as perceptual theories posit. We also assessed arguments for the claim that fear responds to real or apparent danger, and found that their premises do not hold. Evaluative reason explanations for fear are not common, and non-evaluative reason explanations for fear do not seem to imply or presuppose danger assessments. Thus, there seems to be little reason to claim that when we fear something, we necessarily respond to that thing being dangerous. Indeed, against Reactive Theories' core tenets, we have given reason to believe that the awareness (or seeming awareness) of non-evaluative properties can well provide you with reasons for fear. This is good news for rival theories, such as, foremost, perceptual theories, which hold that emotions have evaluative representational content. More generally, it is good news for the view that emotions have epistemic value in contributing to knowledge of evaluative properties such as danger. The fear you experience at the sight of the tiger, albeit motivated by the tiger's looks, can well be crucial in your grasp of the dangerousness of the tiger.

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