

Fear Generalization and Mnemonic Injustice

Abstract

This paper focuses on how experiences of trauma can lead to generalized fear of people, objects and places that are similar or contextually or conceptually related to those that produced the initial fear, causing epistemic, affective, and practical harms to those who are unduly feared and those who are intimates of the victim of trauma. We argue that cases of fear generalization that bring harm to other people constitute examples of injustice closely akin to testimonial injustice, specifically, *mnemonic injustice*. Mnemonic injustice is a label that has been introduced to capture how injustice can occur via the operation of human memory systems when stereotypes shape what is remembered. Here we argue that injustices can also occur via memory systems when trauma leads to a generalized fear. We also argue that this calls for a reformulation of the notion of mnemonic injustice.

1. Introduction

It was really difficult, I think because she wasn't going to be with me. And I was going to have to entrust her to another human being, and I didn't want to. She would have to be on her own with a person that I didn't know for hours, and she was toilet training. I was so worried something was going to happen.... (PID 020, mother) (Christie et al 2023).

Oh no, no. I didn't want him to become harmed in any way, so I wouldn't take him to ice hockey or things. I just wouldn't go. It was just sheer anxiety. I was so concerned for his [child] safety...I'd already had one accident and that was the only time I'd had an accident and I certainly didn't want to have another one. (PID 007, father) (Christie et al 2023).¹

Fear generalization occurs when a person experiences a fear response that spreads, and fear is triggered by items that differ, sometimes significantly, from the original object that caused the fear. This paper explores the impact of the *pathological* spread of fear on those who interact or live with people experiencing this pathology, such as children of parents who are overprotective because of their past traumatic and fear-inducing experiences. We argue that the effect on other people of overgeneralized fear can be an injustice, specifically, a *mnemonic* injustice.

¹ These quotes are from a qualitative study of experiences of parenting in people with PTSD (Christie et al. 2023).

Fear overgeneralization brings significant costs to the person who directly experiences the fear. The costs can be affective because of the fear that is experienced but also because people experiencing generalized fear can suffer from stress and anxiety. They can be practical, as people experiencing fear that generalizes can fail to gain social and economic benefits, for example, due to withdrawing from situations in which their fear may be elicited. There can also be epistemic costs associated with experiencing fear that generalizes, as we shall see in more detail below (section 4 and see also current authors 2023). However, our primary focus in this paper is specifically on the harms inflicted on *other people* as a result of a person's overgeneralized fear that occurs due to trauma.

We argue that these indirect harms of fear overgeneralization can be injustices. More specifically, when one person's fear generalizes, the spreading of the fear can be implicated in injustice towards others. To clarify, we do not take the person who experiences the fear, or their cognitive mechanisms, to be responsible for the injustice. Instead, we view their memory systems to be a vehicle through which injustice occurs. We also do not mean to say that on any occasion where a person is harmed by another person's overgeneralized fear there is an injustice. Instead, we make space for the idea that there can be mnemonic injustices via fear overgeneralization by arguing that generalized fear can be implicated in injustice when the initial fear is due to wrongdoing and those affected by the overgeneralized fear are in a situation of vulnerability.² Children of overprotective parents can be vulnerable, for example, as can otherwise marginalized individuals. We will provide details of this vulnerability and how it can be a source of injustice below.

Because fear generalization is an extension of a conditioned fear response that spreads, it is an effect of non-declarative memory. The injustice that we identify is therefore a mnemonic injustice where this is broadly conceived as an injustice that occurs where the operation of one person's memory mechanisms both prevents that person from gaining knowledge and brings epistemic and/or practical

² We leave open the question whether there can be mnemonic injustice in the absence of independently wrongful acts. We will have achieved our aim of showing that there can be mnemonic injustice via fear generalization if in this paper we show that where there is wrongdoing there is injustice.

harms, and wrongs, to other people. The label *mnemonic injustice* has been introduced to capture how stereotypes shape what people remember about their personal pasts (Puddifoot forthcoming). In this paper, we will argue that there are sufficient similarities between stereotype-driven cases of mnemonic injustice and some examples of pathological fear generalization that the latter should be classified as mnemonic injustices. Accepting that there can be mnemonic injustice in these types of cases involves accepting some modifications to how mnemonic injustice has previously been conceived, not least accepting that it can happen via non-declarative memory in addition to declarative episodic or semantic memory.

The structure of the paper is as follows. In section 2 we introduce the notion of mnemonic injustice, and highlight its usefulness. In section 3 we provide more detail about fear generalization and lay out the basic structure of the argument in support of there being mnemonic injustice that occurs via pathological fear generalization. Section 4 outlines epistemic costs from fear generalization to the person whose memory systems are directly impacted by the fear. Section 5 outlines how other people who are unduly feared can undergo epistemic, affective, and practical costs. Section 6 describes how intimates of people who experience generalized fear can also experience each of these types of cost. Section 7 makes the case that the costs outlined in 5 and 6 are harms that constitute wrongs. Section 8 compares fear generalization to previously identified forms of mnemonic injustice and testimonial injustice to consolidate the claim that the phenomenon can usefully be classified as a mnemonic injustice. Section 9 draws out the implications of acknowledging the mnemonic injustice of fear generalization for the search for an understanding of the relationship between individuals' memories and injustice.

2. The original notion of mnemonic injustice and the parity claim

There has been extensive work outlining how societies can cultivate collective amnesia or ignorance and thus bring injustice to (some of) their members (e.g. Jacoby 1975; Mills 2007; Blustein 2008; Connerton, 2009; Stone and Hirst 2014; Beiner 2018). In recent work exemplifying this approach, for

example, Tanesini (2018) argues that there are injustices that occur when, in response to trauma, societies engage in a process of destroying objects that may be reminders of the trauma, cultivating a form of collective amnesia or ignorance. However, there has been a relative paucity of discussion of how individuals' memory systems can be implicated in injustices towards others without the injustice involving collective remembering or amnesia. Only recently has Puddifoot (forthcoming) analysed one specific way in which an individual's personal memories can be implicated in injustices towards other people. Puddifoot has surveyed psychological research suggesting that stereotypes can shape how events in one's personal past are remembered and argued that memories of this kind can be implicated in injustices. She has labelled injustices of this type, occurring due to personal memory mechanisms, *mnemonic injustices*. One main goal of this paper, then, is to show that cases of fear generalization can also be cases of mnemonic injustice.

To understand the value of this claim, it is important to first see how the notion of mnemonic injustice has previously been used (Puddifoot forthcoming). Central to the case for taking mnemonic injustice seriously is a *parity claim*: cases where memories are implicated in injustice are often similar in both kind and severity to cases of testimonial injustice. Testimonial injustice has been studied extensively and taken extremely seriously as a source of injustice (see, e.g. Fricker 2007; Kidd, Medina and Pohlhaus 2019), so mnemonic injustice should also be. This section outlines the basis of this parity claim, and in the process defines the contours of mnemonic injustice as described in previous work.

The parity claim was formulated in response to psychological findings demonstrating how stereotypes shape what is remembered about social actors and events (Puddifoot forthcoming). These findings demonstrate two relevant biases: sometimes people remember features of a person who is remembered (behaviours or personal traits) that are consistent with a stereotype of their social identity better than features that are inconsistent with a stereotype, and sometimes the reverse effect is found (Dijksterhuis and van Knippenberg 1995; Fyock and Stangor 1994; Hastie 1981; Hastie and Kumar 1979; Rojahn and Pettigrew 1992; Srull 1981; Stangor and McMillan 1992). Under conditions where a stereotype influences what is remembered in either of these ways, a false impression can be formed

about an individual social actor or event that reflects either the stereotypical or non-stereotypical information better than other information about the particular social actor or event. The person remembering can consequently form false beliefs, fail to acquire knowledge, and be ignorant about what really happened in the past. They can suffer epistemic costs because of the way that stereotypes shape their memory.

Puddifoot (forthcoming) has argued that the epistemic costs suffered by the person whose memories are shaped by stereotypes can be accompanied by epistemic and/or practical costs for those who are misremembered. It is also likely to often bring affective costs such as stress, anxiety and depression. Having one's behaviours, attributes or personal contributions misremembered can bring substantial harms. Take for example, a case where a manager misremembers who contributed most to a project, falsely recalling, due to the influence of a stereotype, that a white male employee was a driving force behind a project led by a black female employee. If the manager's subsequent judgements about who to promote are shaped by the stereotype-driven memory, this is an injustice. The injustice is both epistemic, because the person who made the contribution is misremembered to their disadvantage, and not given credit for their cognitive labour and any knowledge and expertise that they provide; and practical, because she does not get rewarded when promotion decisions are made. There may be an additional epistemic cost to the person who is not promoted: a lack of understanding of why their work has not been rewarded. In addition to this, there is likely to be an affective harm: for example, a sense of being disheartened, disappointed, stressed or anxious. Each of these harms occur because of the ignorance displayed by the manager due to their memory biases.

We are now in a position to see why cases where memories are shaped by stereotypes should be treated on a par with cases of testimonial injustice, as injustices, but of a mnemonic type. In cases of testimonial injustice, a hearer fails to get knowledge via testimony because of the influence of a stereotype on their receipt of the testimony. They give testimony less credibility than it is due, failing to give uptake to credible testimony that could have provided them with knowledge (Fricker, 2007). In cases of stereotype-driven mnemonic injustice, people fail to get knowledge via memory because of

the influence of a stereotype. The epistemic and practical harms that follow for those who are the target of the stereotype are extremely similar. Both involve people receiving a lack of recognition, either for the quality of their testimony, or the quality of their attributes and behaviours. Testimonial injustice has been argued to have substantial practical costs, and mnemonic injustice can too. Therefore, there is reason to think that mnemonic injustice, like testimonial injustice, should be viewed as a serious injustice, worthy of tackling.

As in testimonial injustice (Anderson 2012; Fricker 2017), mnemonic injustice can be tackled through changes to human psychology, social or institutional structures (Puddifoot forthcoming). Where stereotypes influence what is remembered, it is possible to reduce the negative impact of the stereotypes on memory by changing people's psychologies in ways that reduce the extent to which they harbour stereotypes and apply those in a specific context. People may also learn to critically reflect upon their memory and consequently adjust the credence given to the memory to reflect the possibility that it has been influenced by stereotypes. These psychological strategies can be complemented with structural and institutional measures that aim to reduce the presence and prevalence of stereotypes, and their influence in people's thoughts and memories. For example, social and political measures to challenge the stereotype associating scientific expertise with males and not females can reduce the distorting effect of this common stereotype on memory. It is also possible to reduce mnemonic injustice by modifying how social institutions work so that decision-making, for example about hiring and promotions, is less driven by personal memory and therefore less susceptible to the influence of memory bias.

At this point it is worthwhile briefly clarifying further the relationship between mnemonic injustice and epistemic injustice. Cases where stereotypes shape what is remembered have been argued to be mnemonic injustices because of their similarities to a specific type of epistemic injustice, i.e. testimonial injustice. The notion of epistemic injustice has gained a great deal of traction since Miranda Fricker's seminal 2007 work *Epistemic Injustice: Power and the Ethics of Knowing*. It would therefore be easy to take this paper as providing a description of a variety of epistemic injustice.

However, mnemonic injustice is not to be interpreted as a variety of epistemic injustice, although it will sometimes involve people experiencing epistemic injustice as a part of the injustice. Instead, mnemonic injustice is an injustice that occurs due to the way that one person's memory systems can place a barrier to them gaining knowledge, and by the same mechanism bring epistemic, but also affective and practical harms, and wrongs, to other people. Even where the harms to others from fear generalization are not primarily epistemic harms, there can still be mnemonic injustice.

In the rest of this paper we aim to show that the concept of mnemonic injustice ought to be applied more broadly than it has been previously, and a larger number of cases where memory systems lead to injustice should be recognized, taken seriously, and addressed by both psychological and social interventions. We focus here on cases of pathological fear generalization, where people's non-declarative memory mechanisms operate in such a way that those people experience fear in response to non-threatening people, places, and things. We show how in these cases many of the features of stereotyping-based mnemonic injustice are present—enough to merit treating cases of fear generalization as cases of mnemonic injustice.

3. Fear generalization and mnemonic injustice: The basics

Let us now consider in some more detail the nature of fear generalization and why it should be taken seriously as a site for mnemonic injustice. Fear generalization is an extension of a conditioned fear response. Under one lens, this phenomenon is highly adaptive for survival, as it enables learned aversive responses to threats to transfer to items more or less similar to those previously experienced as threatening (Dunsmoor, Mitroff and LaBar 2009; Shepard 1987). However, it can become maladaptive. Although it may not be possible to establish a clear boundary between adaptive and maladaptive fear generalization, it can be categorized as maladaptive when fear overgeneralizes to a wide range of objects and situations that pose no genuine threat or danger (Asok, Kandel and Rayman 2019). In such cases, this extended fear response tends to incur more costs than benefits for the organism's self-preservation. Pathological fear overgeneralization is exemplified by the case of Little

Albert, who, as an 11-month-old, was exposed to the pairing of the stimulus of a white rat and a jarring sound (Watson and Rayner 1920). Albert developed a fearful reaction to the white rat, which could be seen as adaptive within the laboratory setting. However, he also exhibited this fear response to other items that shared perceptual similarities with the rat, such as a dog, a rabbit, a fur coat, cotton wool, and even a Santa Claus hat, despite these items not posing any actual threat to him. In this case, the child displayed a conditioned fear response that extended to a wide range of objects beyond the initial trigger of his fear, leading to what can be described as maladaptive fear generalization.

Although in Little Albert's case the fear spread to items that are perceptually similar to the original elicitor of the fear, at other times fear spreads to items that are conceptually linked to the initial experience of fear, or to similar contexts (Bennett et al. 2015; Dunsmoor, Mitroff and LaBar 2009; Dunsmoor and Murphy 2015; Dymond et al. 2015; 2018). Our focus here is then on cases where the fear that overgeneralizes is pathological and is derived from an experience, or experiences, of trauma imposed by other individuals or institutions (see also current authors 2023)³.

Fear conditioning and fear generalization are often considered as a kind of non-declarative memory, more specifically, as associative learning. In the standard model of memory, long-term memory systems are often distinguished into declarative and non-declarative (Squire and Zola-Morgan 1988; Squire 1992). Declarative memory systems include episodic memory and semantic memory. There is much debate about how to define episodic and semantic memory, but in general terms, episodic memory refers to memory of events personally experienced and semantic memory refers to memory of facts or general knowledge (Tulving, 1972; 1985). Our focus here, however, is on the category of non-declarative memory. Non-declarative memory is a broad category that includes an array of phenomena such as memory of procedural tasks, like riding a bike, classical conditioning of responses, such as fear conditioning, habituation, priming and other forms of implicit memory (Roediger III et al. 2017). As Milner et al. (1998) put it, “non-declarative memory [...] underlies changes in skilled behaviour, and the ability to respond appropriately to stimuli [...] as a result of

³ From this point forward, whenever we mention “fear generalization” or “generalized fear,” we will specifically be referring to the condition of pathological fear overgeneralization.

conditioning or habit learning. It also includes [...] priming” (p. 450). Because fear generalization involves associative learning of a conditioned fear response, and is a matter of changes in behaviour and responses to stimuli so that they are considered to be fearful, the phenomenon fits squarely into the category of non-declarative memory. In fact, several models of emotional memory assume a dissociation between the verbally accessible memory of the emotional event and the implicit and non-declarative memory of the emotional event, which encodes emotionally arousing information automatically activated through appropriate situational cues (LeDoux 1993, 1996; Nicolas, 1996; Phelps, 2004; Krikorian and Layton, 1998; Tobias, Kihlstrom and Schacter, 1992; for a review, see also Trakas 2021). Our focus in this paper is on fear generalisation that we suggest fits into the latter category of memory effects.

Although primarily a mnemonic phenomenon, there is also, of course, an affective element into fear generalization and the harms and wrongs it produces. The person who experiences fear that generalizes—and indeed some others who are impacted by the generalized fear in the ways we will outline below—could be classified as experiencing an affective injustice on a broad definition of this injustice, e.g., “An affective injustice, [...] we can understand broadly as an injustice faced by someone specifically in their capacity as an affective being” (Archer and Mills 2019). However, unlike previously discussed cases of affective injustice, the injustice described at the heart of this paper is not solely or primarily the injustice of having an apt affective response that one cannot express without risking one’s prudential concerns (Srinivasan 2018). Nor is the injustice solely or primarily constituted of the harms that a person can face when there is a demand for them to modulate an apt affective response (Archer and Mills 2019). Instead, we are primarily concerned here with how one person’s affective response can be implicated in wrongs towards others via the process of fear conditioning and the spreading of the fear— that is, via non-declarative mnemonic effects. For this reason, we adopt the label mnemonic injustice rather than affective injustice although, as we shall see further below, there are aspects of the effect that we describe that will look very much like affective injustice.

Why, then, should we think that this memory effect should count as an injustice, and specifically a mnemonic injustice? Here is the argument in a nutshell. In some cases of pathological fear generalization: (i) the people who directly experience the fear undergo epistemic costs because of the actions of those who inflict the fear on them—they miss out on knowledge; (ii) marginalized individuals who unduly become the objects of fear that overgeneralizes can experience significant epistemic and non-epistemic, including affective, practical harms; (iii) other people, who are intimates of the person who experiences the fear, can experience significant epistemic and non-epistemic, including affective and practical harms. It can be added to this picture that in our target cases, i.e. those that we argue here are mnemonic injustices, not only are people who are unduly feared or intimates of the person experiencing the generalized fear harmed, they are also *wronged* by those people who inflict the fear that becomes generalized. They are wronged first because they face a risk of harm due to a wrongful act, i.e. the act that imposed the original trauma on the person who experiences fear that generalizes. We argue that the wrongdoing of those who impose the trauma extends beyond the initial target of the traumatic experience, to others who are epistemically and non-epistemically harmed by the generalized fear. Second, they are wronged because they experience a disproportionate risk of harm due to their existing marginalization or other vulnerabilities. Where an already vulnerable individual experiences a disproportionately high risk of harm due to another's choice to engage in wrongdoing, we would argue that this is an injustice. In the cases we describe this type of injustice occurs via the memory mechanisms of people who experience fear that generalizes due to the wrongful trauma imposed on them. It is therefore a mnemonic injustice. Sections 4-7 flesh out the details of this argument.

4. Epistemic Harm to the Person Who Experiences Fear

Let us begin, then, by considering how people who directly experience fear generalization can undergo epistemic harms due to the actions of others that lead them to experience generalized fear (i.e. (i)) (see also current authors 2023), that is, how they can miss out on knowledge. Fear generalization can happen after a traumatic event. People who experience trauma can have an extreme

fear response to events, items, people and contexts that are conceptually, perceptually or contextually related to the trauma-inducing experience(s) (Dymond et al. 2018; Bennett et al. 2015; Dunsmoor and Paz 2015). They can consequently engage in “situation management” (Archer and Mills 2019), managing the situations that they find themselves in to regulate their emotions, specifically avoidance behaviour, avoiding settings which they think are likely to trigger a fear response in them. Situation management has been described in the literature on affective injustice, where it has been argued that a demand for marginalized individuals to attenuate their emotions by controlling the situations that they enter can lead to further marginalization and injustice (Archer and Mills 2019). It might therefore be said that people experiencing fear generalization due to trauma-inducing experiences undergo an affective injustice. However, for current purposes, because we are aiming to identify the harms and injustices suffered by other people as a result of one person’s overgeneralized fear, the most important point is that this avoidance behaviour due to fear generalization brings a main epistemic cost for the person whose memory mechanisms are implicated in injustice (for other epistemic costs see current authors 2023).

People who withdraw from settings in which they believe that they might experience a fear response radically reduce their epistemic horizons. Perhaps the clearest cases where people’s epistemic horizons are limited are those where young people who experience sexual assault in educational settings consequently experience a negative impact on their educational attainment (Duffy, Wareham and Walsh 2004; Hill and Silva 2005; Mengo and Black 2016). They may avoid particular buildings, skip classes, drop an entire course, and even leave school or college, missing out on a basic level of education that is available to most other people. This is a clear epistemic cost. But other cases of fear generalization also limit people’s epistemic horizons and prevent them from gaining knowledge that can be considered to be necessary to support their objective needs such as health, wellbeing, financial security, and autonomy. For example, people who have experienced trauma may avoid social situations. They sometimes avoid interacting with people with certain social identities (e.g. men or people from certain ethnic groups), where those identities become associated with a fear response. They can thereby miss out on gaining information that could be acquired through entering those social

settings and interacting with a wider variety of people. The information missed can be information about trivial matters, but sometimes can be more crucial, such as job-relevant knowledge. For instance, people who are in positions of authority are often men, and women who have experienced sexual assault by a man can develop problems communicating with their male bosses (Easteal 1994), losing the opportunity to gain insider knowledge. Furthermore, victims of sexual assault often avoid sexual encounters for a long period (Herman 1992; van Wijk and Harrinson 2014), and this prevents them from gaining knowledge about their own sexual pleasure and sexual self, especially if they were virgin when raped.

The limits placed on people's epistemic horizons bring the additional epistemic cost that people do not receive information that can disconfirm their negative expectations and limit how far their fear generalizes. Some evidence suggests that people's fear responses can, in certain cases, be reduced on exposure to stimuli that would tend to elicit a fear response, if they experience the stimuli as safe (Dunsmoor and Paz 2015; Ehlers, Hackmann and Michael 2004; Foa and Kozak 1986). Going back to school and being warmly welcomed by friends and teachers, talking and socialising with friendly and respectful men—each of these experiences can provide information incompatible with the fear memories and reduce fear generalization. However, individuals who avoid places, people or items that may elicit fear, due to their fear spreading, will not be exposed to the evidence that may help to disconfirm their fear. The limit placed on their horizons can therefore prevent them from modulating their fear responses, and thereby removing or reducing the limits on their horizons. The epistemic costs associated with fear generalization therefore include both those produced by the initial limits placed on people's horizons and them having their horizons limited for a longer period. These are all ways in which the epistemic agency of the person undergoing fear generalization is curbed.

Note here that for there to be a mnemonic injustice the person whose memory mechanisms are directly impacted by a phenomenon (stereotyping or fear generalization) does not have to be experiencing an injustice themselves. For example, the person whose memories are shaped by social stereotypes, such that they fail to remember the strong contribution played by a woman of colour in a

work project, experiences epistemic costs due to the effect, but it is far from obvious that they are subject to an injustice. It is the woman whose contributions are not remembered, recognized, and rewarded who is wronged and is subject to a mnemonic injustice. However, some people who experience fear generalization are wronged—they are wronged by individuals who decide to impose trauma on them, for example, via sexual assault or rape, leading to fear that spreads, limiting, among other things, their epistemic horizons. We have argued elsewhere that the wrongs that lead to limits to epistemic horizons should be classified as epistemic injustices and examples of epistemic oppression (Puddifoot and Trakas 2023). However, for current purposes what is important to note is that sometimes people experience significant epistemic costs due to the mnemonic effect that is fear generalization, and sometimes these epistemic costs are the result of wrongful actions of others. In other words, people who are subjected to trauma are sometimes epistemically harmed by those who impose fear in them that generalises. The latter point will be increasingly important in the following sections as we come to understand the injustices experienced by others.

5. Epistemic and Non-Epistemic Harms to Wrongful Objects of Fear

Next let us consider how one person's pathological fear overgeneralization can harm others. We can begin to do this by focusing on how the process of fear generalization, through which fear spreads from the original object of fear to other perceptually similar, or conceptually or contextually related objects, can lead some individuals or whole groups of people to be unduly perceived as frightening (i.e. (ii)). As mentioned in section 3, fear can generalize to items, individuals and places that have a physical resemblance to the item that originally elicited the fear. It can also generalize to items that are not perceptually similar but conceptually or contextually related to the original item (Bennett et al. 2015; Dymond et al. 2015, 2018; Dunsmoor and Murphy 2015). What this means is that people who are physically similar to someone who has, for example, posed a threat of physical violence, are likely to be an object of fear even if they themselves do not pose a threat. Similarly, fear may spread to people who are conceptually or contextually related to a person who is an original object of fear. For example, a person's fear may spread from an initial object of fear to others who are viewed to be

members of the same social group as this individual, even if they and the original object of fear are not perceptually similar. Alternatively, fear may spread to other members of the same social group but only in certain contexts or situations, such as in social events or in dark streets at night, or to members of the social group of people who were only circumstantially related to the traumatic past event.

It is clear that the spread of fear to people with certain characteristics or conceptually or contextually related to the initial object of fear can be practically and epistemically costly for those who become unduly feared. It is possible to begin to see this by considering the case of Angela in Kappler (2012). Angela is a rape victim who was sexually abused by family members as a child. She does not get along with her new partner's family members with whom she is sharing a house because they remind her of her own family from whom she suffered abuse. Angela's brother-in-law and a new neighbour, who had nothing to do with the abuse she suffered, come to personify her abusers to her, permanently reminding her of the abuse. Because she projects her fear onto these two men, they are perceived by her as a threat and she may reject them even when they attempt to be friendly and supportive.

This experience of rejection is just one example of how being perceived as a threat can have undesirable consequences. Those who become objects of fear may lose confidence in their approachability. They may feel constrained in how they can behave because they suspect that certain behaviours that they might otherwise display would elicit a fear response. Many are likely to feel a sense of injustice because they have not done anything to warrant the fear response. All of this may occur against a background of ignorance about why they are being perceived as fearful and/or being rejected. There can therefore be accompanying epistemic harms of a lack of understanding of their own experience and why it is happening.

In some cases, it may be the partners of those who experience fear generalization to whom fear is unduly spread, and in such cases there are additional specific practical and epistemic harms that may ensue. Disturbances in sexual life and avoidance of sexual encounters are very frequent after sexual abuse or harassment. Avoidance of sexual intercourse—even with established partners—is common,

because rape victims frequently re-encounter not only specific stimuli that produce disturbing flashbacks but also a more general feeling of being pressured or coerced that acts as a reminder of the rape (Remer and Elliott 1988; Herman 1992; van Wijk and Harrinson 2014). In many situations, the partner of the victim does not understand the impact of what happened to them. A rape victim explains that “when I had that reminder [of the rape] I couldn’t sleep with my husband without remembering what happened to me. My husband didn’t understand what was happening to me” (Easteal 1994, p. 102). If a victim of assault avoids sexual encounters, this may negatively impact the partner’s self-perception, leading them to falsely see themselves as unloved or not desirable, especially when the reason for the avoidance of the sexual encounters is not known. The falsity of the belief and the misperception involved are epistemic harms, but at the same time are likely to bring significant emotional and psychological harms.

Fear does not only spread to and harm those who are close to the person who experiences fear generalization. Fear can spread to, and consequently harm, anyone who is wrongly the object of fear, by leading them to be perceived as threatening. Take, for example, the actions of a person who has suffered sexual assault and becomes distressed when seeing someone who is similar to the person who assaulted them. Let us assume that the person undergoing the fear generalization takes evasive action, e.g. leaving an enclosed space (e.g. a lift) that they share with the person who is unduly the object of their fear, or crossing the street to get away from them. This type of evasive action may contribute to harm, especially if it is experienced as a part of a more general pattern of experiences of being treated as threatening and avoided.

To illustrate this point, it is useful to turn to the literature on microaggressions. Microaggressions are “subtle yet harmful forms of discriminatory behaviour experienced by members of oppressed groups” (Friedlaender 2018, p. 5). They take the form of slights or insults that may be imperceptible to people who are not sufficiently attuned to them. The harms that are caused by microaggressions might in some cases be small if they occurred in isolation but can be experienced as significant where they occur within a broad pattern of similar experiences that are due to systems of oppression. As Rini puts

the point, a microaggression is “a relatively minor insulting event made disproportionately harmful by taking part in an oppressive pattern of insults” (Rini 2018, p. 332). Just some of the harms that are associated with the accumulation of microaggressive experiences are stress, anxiety, depression, high blood pressure, insomnia, eating disorders, social withdrawal, PTSD, suicidal ideation (Friedlaender 2018). The harms of microaggressions can accumulate in different ways. The harms of various microaggressions experienced by the same person (or group) may accumulate by simply adding together until they reach some threshold of more significant harm. Alternatively, the harms may intensify each other, with earlier harms both adding to and intensifying harms experienced at a later time (Friedlaender 2018).

Against this background of understanding from the literature on microaggressions it is possible to see how strangers may be harmed by other people’s generalized fear: A person may be harmed by the evasive action of another who fears them due to fear generalization. The target of the fear may experience emotional or psychological distress, such as embarrassment or stress, due to the specific action. But in addition to this, a person who is avoided through evasive action may be harmed because they experience the evasive action as a part of a pattern of similar slights or insults. Take for example a Black man in the UK who has experienced throughout his lifetime people crossing the road to avoid him. Imagine a woman crossing the road due to a generalized fear that is brought about due to a previous fear-inducing experience. The woman may cross the road due to a generalized fear of all men, or all men in a particular setting, such as in a dark street at night. However, for this specific Black man, the evasive behaviour could be experienced as if it was a part of a general pattern of evasive racial microaggressions, with the act contributing to a significant cumulative harm. The specific evasive behaviour may simply combine with other experiences that the man has had, leading to a larger harm, or it may intensify his experiences of other similar acts in the future. Experiences of cumulative harms like this could be shared by people of several demographic groups, e.g. Muslims, working class men, those with mental health issues.

The cumulative harm that is caused to strangers to whom fear has spread will often be non-epistemic. These harms involve emotional or psychological distress, and damage to self-esteem. Like people who experience fear generalization, strangers who experience being feared might place new constraints on their behaviour, e.g. they may avoid being in similar situations where they suspect they will be deemed a threat by strangers. However, it is likely that there will be associated epistemic harms.

Due to the fact that small, subtle acts of evasion like those found in microaggressions can be attributed various different plausible explanations (Wang, Leu and Shoda 2011), those who are feared may struggle to establish with any certainty whether or why they are being avoided. They may fail to reach the level of confidence in their beliefs to achieve knowledge. This “attributional ambiguity” (Wang, Leu and Shoda 2011) makes people who experience small, subtle acts of evasion susceptible to forming false beliefs about why they are taken to be threatening. This point is illustrated by the example of a Black man who experiences evasive behaviours because of his gender or due to the context in which he is encountered. He might reasonably, based on his past experiences, interpret the evasive behaviour as a racial microaggression. In addition to this, in cases where people are the target of evasive behaviour due to other people’s fear, it may be difficult for those who experience being avoided to articulate the harm that they have experienced. Unless there are shared hermeneutical resources within a socio-epistemic environment that can be used to capture and articulate the harms associated with being avoided due to being unduly feared, those who have the experience may struggle to articulate the harm that they experience (see Fatima 2020, for a discussion of how similar effects can be found in cases of microaggression). Experiencing avoidance behaviour due to being unduly feared can therefore bring significant epistemic harms. It can place those who are feared and avoided in a situation in which they struggle to know what they have experienced and why they have experienced it, as well as struggling to articulate what they have experienced to others.

Although we have focused here on evasive behaviours that are akin to racial microaggressions—small, subtle acts that could be viewed to be minor and are attributionally ambiguous—fear generalization has

the potential to produce other, less subtle forms of harm to those who are unduly the object of fear. If someone is feared by a potential employer, they may not be given a job opportunity. If they are feared by a teacher, they may not be given the educational support that they require, and that others receive. If someone is feared by a judge or juror, they may not be given a fair hearing in a criminal trial, and so on. More generally, where those people who have experienced fear that has spread are in positions of power or influence over those who they fear, there can be significant negative impacts for the latter. What this suggests is another way in which the negative impact of being feared is disproportionately spread across different social groups. Those who are members of marginalized and otherwise disadvantaged groups are more likely to be on the less powerful side of a power imbalance, and therefore more likely to be harmed because people who have power and influence over them unduly fear them.

There is a further set of costs that members of marginalized groups may experience more than others due to being unduly feared. As Srinivasan (2018) notes, members of marginalized groups can face additional penalties, over and above those experienced by the general population, if they display negative affective responses like anger, even when those affective responses are apt. They can be forced into a situation in which they cannot express their apt emotions without compromising their prudential ends. The case of fear generalization seems to be no exception. Members of marginalized groups who express their disappointment or discontent at being unduly feared, or because they face adverse consequences as a result of being unduly feared, may face especially harsh penalties from others, such as being dismissed as oversensitive and suffering social exclusion. Consequently, they may be forced to choose between expressing an apt affective response and achieving other important goals—what has been described by Srinivasan (2018) as an affective injustice.

What we have found in this section, then, is that there are multiple ways that people can be harmed due to unduly being an object of fear. When they are falsely viewed as an object of fear, they are misperceived and, through this process of misperception, can experience significant harm. The

misperception happens due to the way that human memory systems operate in response to traumatic and fear inducing events. This is the same memory process through which the person experiencing fear generalization undergoes the epistemic harms outlined in section 4. What this means is that in cases of fear generalization the object of fear can experience significant epistemic and non-epistemic harms due to the operation of memory mechanisms that prevent the person directly experiencing the effect from gaining knowledge in general, and more specifically leads that person to misperceive the object of fear.

6. Epistemic and Non-Epistemic Harms for Others

In many cases, then, where a person is harmed as a result of another person experiencing fear generalization, the harm occurs as a result of the former person unduly being the object of fear. At other times, however, people may suffer from practical, affective, and epistemic harms without being the object of fear generalization (i.e. (iii)). In this section, we show that the same fear spreading mechanism that harms the primary subject of fear generalization can also bring epistemic and non-epistemic harms to people close to them. This means that the actions of people who induce trauma and fear on a victim can indirectly harm those who are close to the victim.

It is possible to begin to see how people other than the object of fear can be harmed by considering the overprotective behaviour that people who experience fear that spreads sometimes display towards their children. As described in the opening quotes from parents displaying generalized fear (Christie et al. 2023), the spread of the fear can lead parents to close off opportunities for their children, due to fear that they will be harmed. This is true of people who have experienced accidents, but also those who have had trauma imposed on them by others, such as women who have been raped (see, for example, Eastal 1994, p. 32). Rape victims can display overprotective behavior as the result of fear generalization: rape victims do not only fear for themselves but also for those they love and consider to be in need of protection. They fear that their children will have the same experiences that they have had. The overprotective behaviour can be expressed in the control of their children's social contacts,

or in refusing to leave their children with other people. The behaviour can cause substantial practical, affective, and epistemic harms to the children.

For instance, children of rape victims may have both their social lives and epistemic horizons deeply affected. They may be forbidden from spending time with certain friends and prevented from visiting friends at their parental homes. They may be forbidden from going out to certain places, such as specific neighbourhoods, parties, pubs and concerts. If this happens, they will miss the opportunity to gain experiences and social knowledge that could be acquired in these contexts. Because rape victims project their own fears into their children's life, they sometimes distort their children's reality, making the children believe that they are weaker than they are and keeping them in a permanent but unnecessary state of alarm (Kappler 2012). Children may perceive the world as a dangerous place and become fearful and insecure, and feel extremely lonely. In fact, restriction of childhood experiences can facilitate later development of fear and anxiety (Pittig et al. 2018). Prior exposure to stimuli before they become feared, a phenomenon known as "latent inhibition" (Vervliet et al. 2010), attenuates subsequent fear acquisition and fear generalization related to those stimuli. Because parental overprotective and controlling behaviours may prevent children from interacting with certain people and frequenting certain places, children may fail to acquire information that can serve as a form of latent inhibition that buffers against the potential later development of fears. What is more, because most children do not know anything about their mothers' past traumatic experiences, they may fail to understand the restrictions that their mothers impose on them as well as their overprotective attitude. This lack of understanding may lead to the formation of false beliefs that their mother is irrational, incoherent and not always functional (Kappler 2012). These epistemic harms can bring more practical harms: children may distance themselves from their parents, for example.

It is not only children who can be indirect victims of the fear generalization that occurs due to trauma. Other family members and people close to a trauma survivor may be infected with and mimic the traumatic symptoms of the direct victim. This may result from identification with the primary victim (Emm and McKenny 1988; Schwerdtfeger et al. 2008). Although it is true that feelings of anger and

guilt are the most common reactions by family members of victims of trauma, some people, especially partners, present PTSD symptoms associated with their connection with the trauma survivor (Remer and Elliott 1988; Schwerdtfeger et al. 2008; Christiansen, Bak and Elklit 2012; Russin and Stein 2021). Hypervigilance, fear generalization and fear reactions can be among the symptoms. This means that the fear generalization suffered by the primary victim can spread beyond the victim and infect people close to her. Fear generalization can thus also be acquired by vicarious experience (Rachman 1977; Pitting et al. 2018). A veteran's wife, for example, became as sensitive to external stimuli as his partner: "I hear a noise and it disturbs me" (Dekel et al. 2005, p. 28). In this case, she is indirectly affected by her husband's generalized fear: she vicariously experiences stimuli as threatening and dangerous because of the trauma experienced by her husband. This is likely to bring about affective and practical harms, negatively impacting her well-being and performance of everyday tasks, as well bringing the epistemic harms of perceiving and judging external stimuli in the wrong way, for example, perceiving and judging certain people, places and other stimuli as dangerous when they are not. Eventually, this may also lead her to avoid certain people and contexts, and lose opportunities to get information and gain epistemic goods.

Although the kinds of harms described in this section differ from those experienced by people who are unduly feared, we have shown that people emotionally close to the primary victim of a traumatic event can also suffer significant harms. In both cases, due to the fear generalizing memory mechanism, the person who originally undergoes fear generalization misses out on knowledge and another person is harmed. When the person harmed is an object of fear, the epistemic harms mainly concern self-knowledge and the understanding of their own experiences. When the person harmed is not feared, the epistemic harms are more related to misperceptions and misbeliefs about the dangerousness of people and situations, and missed opportunities to gain epistemic goods. In this sense, the latter is similar to the epistemic harms suffered by the primary victim who suffers from fear generalization.

In sum, the examples mentioned above show that practical, affective and epistemic harms can be experienced by a person as a result of the way another person's memory operates after a traumatic event: by overgeneralizing fear. These harms can be experienced by those who are unduly feared and by relatives and people close to the primary victim who do not become the object of fear. It is worth highlighting that these harms do not necessarily take place every time that the person who suffers from fear generalization is epistemically harmed: for any case of fear generalization there is likely to be far more contexts and situations where the primary victim is harmed than those where others are harmed by her fear generalization⁴. Nonetheless, the harms to others are significant and worth marking.

7. From Harms to Wrongs

Sections 3-6 have shown that cases of fear generalization share the following features with stereotype-based mnemonic injustice, and testimonial injustice: a person misses out on knowledge and, via the same cognitive mechanism, other people are epistemically, affectively, and practically harmed. What cases of fear generalization lack, however, is the role of stereotypes or prejudice in the production of the epistemic, affective, and practical harms. Testimonial injustice arguably seems so unjust because of its discriminatory aspect: people are disbelieved due to a systematic prejudice against those who have their social identity, where others, with a different social identity, would be

⁴However, it's important to note that these harms are not entirely distinct and separate in all cases: there are always interconnections between the harms of the primary and the secondary victims (Remer and Elliott 1988). Much as the harm experienced by the primary victim impacts their immediate family members, the harm endured by these relatives often reciprocally affect the primary victim. For example, in some cases, the epistemic harms experienced by relatives and others close to the victim can simultaneously maintain and even exacerbate the symptoms of the victim. Overprotective behavior towards a victim is a common reaction among family members too, particularly when the victim is a child or a rape survivor (Emm and McKenry 1988; Christiansen, Back and Elklit 2012; Gregory, Williamson and Feder 2017). This overprotective behaviour can be exacerbated by the family members experiencing vicarious fear. Certain people, places, and contexts, can be perceived and judged as threatening not solely or necessarily for the secondary victim himself or herself, but instead for the original victim. The overprotective attitude that this can produce or maintain increased monitoring behaviour, excessive involvement in the victim's activities, increased restrictions and the victim being denied autonomy. Each of these things has the potential to affect the victim's interests and well-being as well as limit their epistemic horizons, preventing them from gaining knowledge that would be available to them in contexts from which they are excluded. The information that is missed could include knowledge that would modulate their fear responses, so this process can sustain and even reinforce the epistemic harms and exclusion suffered by them.

believed (see, e.g. Fricker 2017). Similarly, stereotype-based mnemonic injustice arguably seems so unjust because people's actions and attributes are misremembered to their disadvantage due to an aspect of their social identity, and others with different social identities do not face the same risk of this happening to them. To make it seem convincing that cases of fear generalization involve injustice, it would therefore be useful to show that there are similar perniciously discriminatory outcomes that happen in some cases of fear generalization, even in the absence of stereotypes, and that these pernicious outcomes are the result of wrongful acts that lead to the fear that spreads.

Let us commence with the second point. The fear generalization that leads to the epistemic, affective, and practical harms described below can be the result of the independently wrongful actions of others, and these epistemic, affective, and practical harms are a part of the consequences of these wrongful actions⁵. We have argued elsewhere that generalized fear and the epistemic costs it brings to the person directly experiencing the fear should be deemed wrongful if they have their source in the wrongful act of choosing to impose trauma via actions like rape or sexual assault (current authors 2023; see also section 4). Here we argue that the wrong extends beyond the initial target of the traumatic experience, who experiences fear that generalises, and that others who are epistemically, affectively and practically harmed by the generalized fear also count as wronged. Our suggestion is that the latter individuals experience epistemic, affective, and practical harms due to people's wrongful choices to inflict traumatic experiences like rape or assault. There is a wrongful action committed, so these harms are not the result of mere bad luck. Therefore, these individuals, akin to the primary victims of these traumatic experiences, are also wronged, and this wrongfulness constitutes an injustice. In fact, the idea that the harm can extend beyond the primary victim is widely accepted in psychiatry: the idea of "secondary victim" or "secondary survivor" of trauma has been widely used for some time (Remer and Elliott 1988; Remer and Ferguson 1998; Christiansen, Bak and Elklit 2012). More recently, the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5;

⁵ As Sartorio (2016) claims, "The standard view on wrongness is that its being wrong for S to do A amounts to, or at least entails that, S ought to have refrained from A-ing" (p. 24), and it is uncontroversial that in cases like sexual assault and rape the perpetrators of the act morally ought to have refrained from the actions that they engaged in.

American Psychiatric Association, 2013) has explicitly recognized that PTSD symptoms can develop after “learning that the traumatic event(s) occurred to a close family member or close friend”. In the legal system of some countries secondary victims are also treated as if they are *wronged*, for example, in the US relatives of a sexual assault and child abuse victims can also claim for victim compensation benefits (see, for example, South Dakota Department of Public Safety, n.d.; State of Connecticut Judicial Branch, n.d.). Here, we have embraced the notion that the wrong of the trauma goes beyond affecting the primary victim and extends to those in their immediate surroundings. Thus, it is not only the primary victim who is wronged when someone inflicts trauma. But we have taken this idea a step further to include individuals who may not have a close connection to the primary victim but are also indirectly wronged by the fear-inducing act because they are unduly feared.

Concerning the perniciously discriminatory outcomes, we argue that, like in cases of stereotype-based mnemonic injustice and testimonial injustice, some people are, due to their marginalized or otherwise “more than ordinarily vulnerable” (Sellman 2005, p. 4) social identities, more susceptible than the general population to experiencing the negative effects of other people’s fear generalization due to the disparity of risk that they face. This point finds support in the discussion found in sections 5 and 6. In these sections it was argued that there are disparities in the impact of fear generalization. Members of marginalized groups are more likely than others to be harmed by the subtle acts of avoidance (e.g. leaving a lift, crossing a road) because they are more likely to experience the avoidance behaviour within a broader pattern of exclusion and oppression. In addition to this, marginalized society members are more vulnerable to the negative reactions of people in power whose decisions are shaped by their fears. Where they live more precarious lives as a part of their marginalized status, they may also suffer more from others by being overlooked. Because there is an unjust distribution of the risk of harm, marginalized individuals are more susceptible to harm due to their already marginalized status.

This disproportionate risk of harm can be explained in terms of vulnerability. Members of marginalized groups are vulnerable due to their having less ability to protect their own interests (Goodin 1985). Not only do they experience the “inherent vulnerability” (MacKenzie, Rogers and

Dodds 2014; MacKenzie 2014) that is characteristic of all human lives due to our corporality, dependency on social interaction and so forth (e.g. Butler 2004, 2009; Fineman 2010; MacIntyre 1999), they also experience “situational vulnerability” (MacKenzie, Rogers and Dodds 2014; MacKenzie 2014). Situational vulnerability is context dependent. It is caused by the personal, social, economic, or environmental situation of an individual or group. Social marginalization involves occupying social, economic, and often environmental conditions in which one becomes more vulnerable because one is less able to protect one’s interests. One way to understand the injustice of mnemonic injustice is, then, that already situationally vulnerable individuals are exposed to additional risk of harm due to the trauma wrongfully inflicted on others.

It is not only people who are marginalized because of their social identity who are disproportionately at risk of harm due to fear generalization. The intimates of people experiencing fear generalization who are the focus of discussion in section 6—the children and partners and others close to those experiencing fear generalization—are also especially at risk of harm. Children and other intimates are situationally vulnerable not because of their social or economic status, but due to their personal relationship with the primary victim of trauma. Their closeness to, and sometimes identification with, a person who has experienced trauma and subsequently fear that has generalized makes it harder for them to protect their own interests, for example, meeting their own emotional needs, and brings them additional risk of harm. Their vulnerability may be compounded by social and institutional structures that fail to provide adequate support for their intimates (Mullin 2014; Gregory and al. 2017; Russin and Stein 2021), but the closeness to the person experiencing fear suffices for vulnerability. Children of people experiencing fear generalization are especially vulnerable because children are inherently dependent on adult caregivers—dependent on their caregivers both to support their survival and their flourishing (Kittay 2019; Lotz 2014; Mullin 2014). However, the caregivers they depend on are not only unable to provide them with the necessary support to meet their objective needs, like a strong social life and overall well-being, but may also exhibit overprotective behavior and impose restrictions (Easteal 1994; Pittig et al. 2018) that run counter to these basic needs.

What we find when it comes to fear derived from trauma that generalises, then, is that members of marginalized and other situationally vulnerable groups are some of those most negatively impacted by others' fear. Here we encounter a second reason to consider the existence of an injustice: some people face a higher level of risk than others, and this includes those who are already vulnerable. This suggests the presence of a discriminatory aspect that further supports the idea that there is an injustice.

By arguing that there is a mnemonic injustice when vulnerable individuals, that is, individuals who undergo a disproportionate risk of harm, suffer from the consequences of fear generalization due to trauma, we are able to make a plausible distinction between cases where harms seem to be injustices and those where they seem not to be. Take, for example, a case where a student has a fear response towards their male lecturer due to a previous experience of sexual assault by a male in a position of authority over her. The lecturer has four hundred students and would not recognize the student on the street. However, the lecturer misses out on some knowledge because their student does not tell them, for example, that their lecture materials are not accessible to people with a medical condition that she has. The student does not pass on this information because the lecturer elicits a fear response from her. Here the lecturer suffers an epistemic cost due to the student's fear and could suffer practical costs, say, if another student officially complains about the inaccessibility of their lectures. However, it does not seem right to say that the lecturer is wronged and experiences an injustice. Our account can handle this type of case, suggesting that there is no injustice and no wrongdoing suffered by the lecturer because the lecturer is not in a situation of vulnerability: the lecturer does not experience a disproportionate risk of harm due to their social or personal situation. The lecturer is neither socially marginalized, given their status as a lecturer, nor in a close relationship with the student. So the lecturer may suffer from epistemic, affective or practical costs due to the avoidance behavior of their student, but the lecturer is not wronged and does not experience injustice⁶.

⁶ We have argued elsewhere (current authors 2023), when discussing the epistemic harms experienced by the person suffering from fear generalization, that the nature and the extent of the harms, as well as the existence of a clear agent (individual or institutional) who inflicts those harms (whether or not they are aware) through their actions, were factors to consider when assessing whether harms constitute wrongdoing and injustice. We have argued that the consequences of recognizing the harms as an epistemic wrongdoing, for example, in the legal domain, may also be important to determining whether to classify the harms as injustices. Here we highlight another aspect that seems relevant-and perhaps even more fundamental-to determining whether a harm produced by someone else's actions is a wrong, and thus, an injustice: the background situation of the person affected.

It might be responded that a disparity of risk of the type experienced by vulnerable individuals from other people's generalized fear does not on its own constitute a wrong or injustice. Were the risk of harm, or the disparate risks of harm, merely the result of bad luck then it might be argued that the disparity does not constitute an injustice, and no-one wronged. However, this objection does not get off the ground when it comes to individuals who face additional harm due to their marginalized social status. This is because when people experience a heightened risk of the types of harms we have described due to their marginalized status in society, this is best explained by oppressive social or institutional structures, historical and continuing inequalities, and so forth. There is a strong case for saying that if someone experiences a higher risk of harm due to social and institutional structures like these, they are not simply unlucky, but instead they are wronged. They are wronged in virtue of the nature of the social and institutional structures that marginalize them.

It might also be responded that those who impose trauma by, for example, sexually assaulting someone, should not be viewed as wronging anyone who is thereby harmed downstream because they could not be expected to foresee the downstream harm. This claim might initially seem to be in line with discussions of moral responsibility, culpability, and blameworthiness, where it is sometimes argued that a person is only morally responsible, culpable, or blameworthy for an event that is a consequence of their actions if they have a belief about the event being a consequence of their action (Zimmerman 1997, p. 420), or if it is reasonably foreseeable that the event will follow their action (Vargas 2005; Fischer and Tognazzini 2009; Sartorio 2016). However, it is important to distinguish claims about wrongdoing from claims about moral responsibility, culpability, and blameworthiness. In fact, it is often assumed in debates about moral responsibility, culpability, and blameworthiness that there can be wrongdoing where one person is harmed as a consequence of the actions of another person even if the person who engages in the harmful action is not aware, or could not reasonably be expected to be aware, of the harmful consequences of their actions. The question of responsibility,

Based on our previous arguments, it seems that the particularities of the situation of the person affected, in this case their situational vulnerability, magnify the consequences of actions inflicted upon them, thereby intensifying the resulting harms.

culpability or blameworthiness may rest upon the awareness of the consequences of action in such discussions, but the wrongfulness of the action does not.⁷ We have argued elsewhere (current authors, 2023) that the agent's intention, along with their knowledge and awareness at the time of the action, may or may not be factors in determining the agent's responsibility, culpability, or blameworthiness, but do not determine the wrongs suffered by a person as a result of the action. We adopted—and here continue to adopt—a victim-centred approach, according to which the nature of a wrong is determined by the experiences of the victims themselves rather than being contingent on some cognitive condition of the agent. Think, for example, of a deeply sexist person who cannot foresee that they could harm a woman by denying that she has strong intellectual abilities, thinking both that women lack these abilities and that they place no value in them. The fact that the sexist person cannot foresee the harm does not mean that their speech act is not wrongful. Similarly, the harms that people indirectly experience due to other people's trauma can be wrongful, and wrongful because they are the consequence of wrongful actions of those who inflict trauma, even if the wrongdoer could not foresee, or be reasonably expected to foresee, them.⁸

It is important to stress at this point that it is not only individuals, but can also be social or institutional structures, and the decision makers within institutional structures, that are responsible for the wrongdoing. Take, for example, a male police officer who works within a police service that fails to address widely acknowledged institutional misogyny. The police officer engages with impunity in actions constituting sexual harassment. A victim of the police officer's harassment experiences fear that spreads to others in her life and negatively impacts her relationships with them, causing them harm. Here there seems to be a strong case for saying the police officer engages in wrongdoing. But

⁷ Take, for example, Vargas' (2005) discussion of a person, Jeff, who becomes a jerk. Vargas outlines how one might approach assessing Jeff's moral responsibility: "Since Jeff is a jerk, and unreflective about his behavior, we have to find a prior moment when he could both act freely and reasonably foresee the outcome (of wrongfully poor treatment of his employees)" (p. 277). The suggestion in this quote is that the question of responsibility may hang on Jeff's ability to foresee an outcome, however, the wrongfulness of his action does not depend on the foreseeability of its consequences. What is not under question is whether Jeff's jerk-like treatment is wrongfully poor (see Rudy-Hiller 2022 for further examples).

⁸ Our treatment of the injustice here is very much in the spirit of Fricker's approach to testimonial injustice. In work from 2017 clarifying her position, she says that "In testimonial injustice the absence of deliberate, conscious manipulation is definitive, at least in my conception" (2017: p. 54).

there is also good reason to think that the institution, and those working within the institution, have done something wrong. In this case, those in charge in the institution have not taken the requisite steps to prevent the harm, initial fear, or the generalized fear that ultimately leads to the mnemonic injustice. That is, they have not made changes to those institutional structures that are allowing the police officer to act with impunity. Those in power and influence in the institution have been negligent, failing to fulfil a duty of care in protecting the victim of harassment from harm. This harm has directly produced fear that has in turn produced harm towards others. What this example suggests is that the wrongdoing of mnemonic injustice can be an interpersonal injustice: i.e. inflicted by one person (the perpetrator who produces the fear) on another (those unduly feared or whose intimates experience generalized fear) via a person who is directly harmed. It can also simultaneously be both an interpersonal and institutional injustice, where the action or inaction of an institution contributes to a person experiencing fear that harms another person who is intimate with them or to whom fear is unduly spread, as in the police case.

We are now in a position to see how the memory mechanisms that are causally responsible for fear generalization are implicated in injustice. They are a means through which epistemic (as well as affective and practical) harms can be caused by those who inflict trauma to people who directly experience fear generalization. They are also a vehicle through which other people—to whom fear is wrongfully spread or who are intimates of people directly experiencing fear generalization—can be epistemically, affectively, and practically harmed. The harm to other people can constitute an injustice where the harm is the result of the independently wrongful choice to inflict harm and the risk of harm is unevenly distributed, with marginalized and otherwise vulnerable individuals most at risk of harm.

8. Revisiting the Parity Claim: Fear generalization based Mnemonic Injustice, Stereotype-based Mnemonic Injustice and Testimonial Injustice

It is now possible to revisit the parity argument outlined in section 2. Stereotype-based mnemonic injustice has been argued to be similar in form, and severity, to testimonial injustice (Puddifoot

forthcoming). Both involve epistemic harms to an individual that prevent them from gaining knowledge, while also bringing epistemic, affective, and practical harms to others. It was argued on this basis that mnemonic injustice should be taken seriously alongside testimonial injustice, and efforts should be directed towards addressing both. Efforts that focus on changing human psychologies and social structures are available to achieve this goal. The parity claim can now be extended to mnemonic injustice that occurs via fear generalization.

Fear generalization also involves epistemic harms to an individual (i.e. the primary victim who is directly experiencing fear that generalizes), while the same fear generalising memory mechanism brings epistemic, affective, and practical harms to others. The severity of the epistemic harm to the person who directly experiences fear generalization will often not only be as strong, but will in fact be much stronger, than the epistemic harms experienced by the person who is complicit in either testimonial injustice or stereotype-based mnemonic injustice. A person who is complicit in testimonial injustice will miss out on knowledge in specific instances when their prejudice towards members of a social group prevents them from giving credence to their testimony. A person whose memory systems are implicated in stereotype-based mnemonic injustice may misremember the details of particular events, and they may not remember certain behaviours or attributes that some people, whom they stereotype, have displayed. But a person who directly experiences fear generalization may withdraw from numerous social, educational, and work settings. They may miss out on knowledge that can be acquired in each of the settings that they choose not to enter. Some of this knowledge could be crucial to flourishing in society, such as the information ordinarily gained through education or job-relevant insider information. What this suggests is that the epistemic, affective, and practical harms to the person whose memory mechanisms are implicated in injustice via fear generalization will often be not only as severe but in fact more severe than those suffered by perpetrators of stereotype-based mnemonic injustice and testimonial injustice.

Meanwhile, the epistemic, affective, and practical harms endured by other people harmed by fear generalization will often be of comparable levels of severity to that experienced by people who are

victims of testimonial injustice or stereotype-based mnemonic injustice. As outlined in section 5, people who are wrongfully the object of fear may experience stress, distress and confusion in response to other people's fear of them. They face the risk of being denied opportunities in the workplace, education or similar settings where those giving out the opportunities fear them. They may lack an understanding of themselves and their place in society, due to the ambiguity that they may experience about why they are feared, why they miss out on opportunities, and so forth. These epistemic, affective, and practical harms closely resemble those that are suffered by people whose testimony is unjustly discredited, or whose positive attributes and contributions are misremembered or forgotten due to the influence of stereotypes on memory. In addition to this, in cases of fear generalization there can be the extra epistemic, affective, and practical costs to those who are intimates of those who directly undergo fear generalization. As argued in section 6, they can experience many epistemic, affective, and practical harms, similar to those of the primary victim, that is, severe and widespread harms.

A further similarity between fear generalization based mnemonic injustice, stereotype based mnemonic injustice and testimonial injustice is that each can be tackled by making changes to human psychologies or by focusing on social structures. It is possible to tackle mnemonic injustice towards those who are unduly the object of fear by addressing the psychology of those who experience fear generalization, e.g. by ensuring that they have access to appropriate trauma therapy so that their responses are not so influenced by their fear (Callender and Dartnall 2011). The harms suffered by the close relatives of the primary victim of trauma and fear generalisation can also be mitigated through the provision of appropriate therapy. This is particularly important, given that the adverse effects on those close to the primary trauma victim often remain largely unnoticed and unrecognized even by professionals (Gregory and al. 2017; Russin and Stein 2021). On the other hand, mnemonic injustice can be tackled by making direct changes to social or institutional structures, e.g. taking an evidence-driven approach to changing policing practices to reduce the likelihood that people will experience fear-inducing events like sexual assault or rape in high risk environments, for example, in

schools and workplaces; or targeting the financial, employment and housing instability of women at risk of experiencing sexual abuse (Heller 2016).

In sum, the epistemic and practical harms associated with fear generalization are comparable to, and in some cases more severe and numerous than, those of testimonial injustice and stereotype-based mnemonic injustice. In addition to this, the strategies to tackle fear-based mnemonic injustice are similar to those needed to tackle stereotype-based mnemonic injustice and testimonial injustice. For those concerned about the epistemic and practical harms that follow from testimonial injustice or stereotype-based mnemonic injustice, this should give reason to also be concerned about, and driven to address, the mnemonic injustice that pathological fear generalization brings.

9. Broadening the Search for Mnemonic Injustice

As we have seen, mnemonic injustice was originally defined as a kind of injustice that members of social groups that are stereotyped suffer due to the way that stereotypes shape other people's recollections of them (Puddifoot forthcoming). What the discussion in this paper suggests is that there is a broader category of memory effects that should be classified as mnemonic injustices.

First, our argument suggests that mnemonic injustices can occur via non-declarative as well as declarative memory. It might be tempting to accept that episodic recollections of the past and semantic memories can be implicated in injustices towards others, because they can misrepresent the acts or character traits of individuals, but to deny that other types of memory effect can be implicated in injustice. However, those who experience fear generalization driven mnemonic injustice are not (or not always) harmed by having their acts or characteristics misremembered. For example, in cases of fear generalization people can be harmed by being feared or, in the case of children of overprotective parents, by being denied certain opportunities that they might otherwise have experienced.

Alternatively, they may be harmed by vicariously experiencing the generalized fear of an intimate. But rarely, if ever, are they harmed by being misremembered. This suggests that while in mnemonic

injustice the harm is always produced by the operation of memory mechanisms, the harm is not always inflicted directly via the act of misremembering. Sometimes, as exemplified in cases of fear generalization driven mnemonic injustice, individuals are harmed instead by non-declarative memory effects, and it is these memory effects that are implicated in injustice.

Second, the argument in this paper suggests that there is a large variety of people who are vulnerable to harm due to how other people's memory systems operate. The concept of mnemonic injustice has previously been used to capture how people, their actions, and their personal characteristics can be misremembered because there are specific stereotypes relating to their social identity (Puddifoot, forthcoming). However, we have seen that people can be harmed, we argue unjustly, by other people's personal memory mechanisms without the harm being due directly to stereotypes relating to their social identity, or due to their social identity at all. As we have seen, for example, intimates of those who experience fear generalization, including partners and children, can experience high risk of practical, affective and epistemic harms because of their relationship to someone experiencing fear generalization. The high risk of harm is due to their intimacy with the person undergoing fear generalization rather than due to their social status or membership of a particular social group.

In other cases, a person's social identity contributes towards them experiencing fear generalization driven mnemonic injustice, because it is due to their social identity that they are disproportionately at risk of harm due to fear generalization. But they are not harmed by the influence of a stereotype on memory. A person experiencing fear generalization may engage in avoidance behaviour towards all members of a particular social group. Any harm caused by this avoidance behaviour is related to the social identity of the person harmed: they are harmed due, in part, to an aspect of their social identity. However, the avoidance behaviour will not always be related to a stereotype, that is, to the association of all members of their social group (more strongly than others) with a particular trait or characteristic (Puddifoot 2021). Sometimes a person will respond fearfully to superficial perceptual features, such as certain clothes, or particular words or colloquial expressions that remind them of a traumatic event,

when found on or spoken by members of a particular social group. At other times, fear is a response to contextual features: members of a social group may be feared only in certain contexts or situations, such as in social events or in dark streets at night. In these cases, the harm is not due to a simple association between all members of a social group and a certain trait or traits.

Third, the arguments in this paper suggest that the epistemic harms experienced by the person whose memory systems are implicated in mnemonic injustice are not necessarily closely tied to the harms inflicted on others. In stereotype based mnemonic injustice, one person misremembers another person, thereby suffering the epistemic cost of missing out on knowledge, and another person is harmed by this act of misremembering. In fear generalization driven mnemonic injustice, the person whose memory systems are primarily implicated in the injustice (i.e., the primary person suffering generalized fear), can experience wide-ranging epistemic costs due to significant limitations being placed on their epistemic horizons. They may avoid entering social settings, stop going to school or work, or so forth. They may miss out on a wide range of knowledge that they could have gained in these settings. The epistemic costs can range across many settings other than that in which they inflict harm on others. What this suggests is that mnemonic injustice can be a disjunct phenomenon: the epistemic harms to the person whose memory mechanisms are implicated can occur separately from the harms that they inflict on others.

Finally, we have spoken in this paper about the memory mechanisms responsible for fear generalization being implicated in injustice, but we have also emphasised that where people experience fear due to the wrongdoing of other individuals or institutions those external agents can be the source of the wrongdoing. This suggests that we ought to be alert to the ways that one external agent can shape the outputs of human memory of another agent in ways that may produce injustice towards a third agent or sets of agents.

Our discussion in this paper has therefore provided multiple reasons for broadening the search for mnemonic injustices and adopting an expanded conception of mnemonic injustice. By adopting an

expanded conception of mnemonic injustice it is possible to retain the crucial point that the memory mechanisms of individuals can bring epistemic harms to the rememberer and epistemic, affective, and practical harms to others, in ways that appear unjust (Puddifoot forthcoming). However, it is also possible to recognize that the harms are not always due to stereotyping and misremembering, nor are members of stereotyped and marginalized groups the only ones who face high risk of harm. In addition to this, it is possible to recognize that the epistemic harms suffered by those whose memories are implicated in mnemonic injustice can be long-lasting, and extend significantly beyond the time and place where their memories are implicated in harming or wronging others. Finally, it is possible to recognize the role that external agents can have on causing mnemonic injustice.

10. Conclusions

This paper contributes to the project of understanding how biological memory mechanisms are implicated in injustice. It argues that memory mechanisms that lead to a pathological generalization of fear after trauma can be implicated in wrongdoing towards people who are unduly the objects of fear, and intimates of those who experience the traumatic event that leads them to feel fear that generalizes. We have outlined some epistemic costs associated with fear generalization for the person who experiences fear that generalizes, and shown how these epistemic costs can be accompanied by epistemic, affective, and practical harms to others. We have argued that these harms should be classified as wrongs when people face disparate levels of risk, sometimes but not always tracking aspects of their social identity, but always due their situational vulnerability, and where the harms are the consequence of independently wrongful actions or decisions. Conceiving fear generalization as a mechanism through which injustice can occur has led us to revisit what it is for individuals' memories to be implicated in injustice, and to suggest that the concept of mnemonic injustice should have an expanded application. The discussion has highlighted how mnemonic injustice can take many forms. It might not involve stereotyping or ill-treatment based on perceived social identity, although it might. It might not involve people being harmed by having their actions misremembered, although this can

happen. It might not involve the person who is remembering suffering costs at the same time as others are harmed, although this is a possibility. This paper has provided a foundation for future work exploring these various ways that memories can bring injustices.

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