Reviving the naïve realist approach to memory*

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Forthcoming in *Philosophy and the Mind Sciences*

Abstract

The viability of a naïve realist theory of memory was a lively debate for philosophers of mind in the first half of the twentieth century. More recently, though, naïve realism has been largely abandoned as a non-starter in the memory literature, with representationalism being the standard view held by philosophers of memory. But rather than being carefully argued, the dismissal of naïve realism is an assumption that sits at the back of much recent theorizing in the philosophy of memory. In this paper, we identify three reasons why philosophers of memory have felt compelled to outright reject naïve realism. We argue that none of those reasons are successful. Thus, far from being a non-starter, we argue that naïve realism is a theoretical perspective that needs to be given serious consideration in current philosophy of memory debates.

1 Introduction

The question of whether a naïve realist theory of memory is possible was central for philosophers of mind in the first half of the twentieth century.

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John Laird (1920, 56), arguing for naïve realism, said "Memory does not mean the existence of present representatives of past things. It is the mind's awareness of past things themselves." Laird rejected the then-standard view that memory is experience of *images* representing the past. Most philosophers, at the time, following psychologists (e.g., James 1892, 294), adopted the memory-image view (analogous to the sense-datum theory in perception). They objected to the naïve realist review based on how memory is potentially inaccurate experience *now* of something *not now present* (e.g., Price et al. 1936, 26). Although early memory naïve realists had replies to this objection (e.g., Taylor 1938; Laird 1920; Taylor 1956), those endorsing the memory-image theory continued to raise the issue (e.g., Furlong 1954).

More recently, though, naïve realism has been largely abandoned in the memory literature, with representationalism being the standard view held by philosophers of memory (cf. Debus 2008; Aranyosi 2021). It is difficult to pinpoint the exact reasons for this, but three influential ideas in recent discussions stand out. First, picking up on those earlier debates, our intuitive conception of the nature of the intentional objects of memory and how we become aware of them seems to clearly favor a representationalist view. Memory is, intuitively speaking, about things in their absence. Remembered events are in the past, no longer existing (i.e., occuring) at the time of remembering. Since appeal to representations has been the standard move in philosophy of mind to explain how awareness of absent things is possible, representationalism provides a natural starting point for thinking about the nature of memory.

Second, recent philosophical theorizing on the nature of remembering has been highly influenced by the causal theory of memory (Martin and Deutscher 1966). According to the causal theory, remembering requires, among other things, an appropriate causal connection to a past event by means of a memory trace (De Brigard 2014b; Robins 2017). On a very general understanding of the term, a memory trace is a causal intermediary state—often thought to be a brain state—standing between a past-perceived event and memory. This *intermediary* state was and is often taken to rule out memory naïve realism, which (as its early proponents described it) took remembering to be "direct apprehension of the past" (Laird 1920, 52, emphasis added).

¹The idea that memory involves the revival of a "trace" has a long history in both psychology (James 1892, 294) and philosophy (Laird 1920, 51), although Martin and Deutscher's (1966) paper has certainly been the touch point for recent discussions.

Another problem raised by commitment to memory traces is that they are inherently representational (Martin and Deutscher 1966). In other words, memory traces store information about past events, information that is then used to generate memory experiences. For reasons that we explore in more detail in Section 6, we don't think that this challenges naïve realism. As we argue below, this problem results from a misunderstanding about the scope of the claim made by naïve realists that memory is not representational. Briefly put, naïve realism is not necessarily incompatible with the idea that memory, understood as a cognitive process, involves the manipulation of representations, but only with the claim that memory experiences themselves are representations.

Third, recent work in the philosophy of memory has emphasized the constructive character of memory. Empirical research shows that, rather than being a passive storage of past experiences, memory is a dynamic and constructive cognitive capacity that allows us to become conscious of the past (Sutton 1998; De Brigard 2014a; Michaelian 2011, 2016b). One important implication of this way of thinking about memory is that memory errors or distortions are pervasive (De Brigard 2014a). Even paradigmatic cases of genuine memories are, on this view, open to some degree of inaccuracy due to the inherently constructive character of memory processes. This has led some to argue that naïve realism cannot possibly be true of memory, for naïve realism, according to them, implies that we remember things as they "really were", i.e., without any distortions (Sant'Anna and Michaelian 2019; Sant'Anna 2020). As we'll explain (Section 6), naïve realism as the resources to explain inaccurate memories and need not entail that we remember things as they "really were".

These considerations have led most to regard naïve realism as a non-starter when it comes to memory. But far from being a claim that has been carefully argued for, this is rather an assumption that sits at the back of much recent theorizing in the philosophy of memory (cf. Sant'Anna 2020). Given the lively debate still unfolding in the middle of the twentieth century (e.g., Taylor 1956; Landesman 1962), memory naïve realism didn't die because it was unworkable, but instead seems to have been left behind for sociological reasons. And, as it turns out, there are important theoretical motivations for taking naïve realism seriously in a contemporary setting. As we discuss in more detail below, naïve realism promises to provide an account of important features of the phenomenology of memory. For instance, it allows us to make sense of the suggestion, quite popular in the recent literature, that

remembering is a form of "re-living" or "re-experiencing" past events (e.g., Tulving 2002; Suddendorf and Corballis 2007; Klein 2015; Michaelian 2016b). It also has important metaphysical and epistemological implications. As Debus (2008, 406–7) points out, naïve realism (or "relationalism", as she calls it) provides an account of how memory allows us to gain knowledge of past events and to entertain thoughts about those events. Similarly, it allows us to distinguish between memory and imagination in a neat way (Debus 2014; Aranyosi 2020, see Sant'Anna and Michaelian 2019 for a critical disussion).

In light of this, our goal in this paper is to bring the assumption that memory naïve realism is unworkable to the fore and to argue that it is an unwarranted one. In doing so, though, we do not set ourselves to develop a naïve realist theory of memory, but rather to show that, far from being a non-starter, naïve realism is a theoretical perspective that needs to be given serious consideration in the recent philosophy of memory debate.

To motivate this view, we rely on the recent naïve realist literature in the philosophy of perception. Unlike in the philosophy of memory, naïve realism in philosophy of perception has undergone a renaissance in the last twenty years. We identify the main tenets of this new-wave naïve realism and argue that they can be plausibly motivated in connection to memory. We do this by considering how the issues articulated above can be understood as challenges to the main tenets of naïve realism and we discuss how naïve realists might respond to them.

While there are two other recent attempts to outline and defend a naïve realism about memory (Debus 2008; Aranyosi 2021), we feel that these attempts, while important, are overly narrow, adopting as their model a specific version of naïve realism. Naïve realism in perception is a loose collection of evolving views in sympathy with each other, not a static and unified approach with fully precisified commitments. Proponents often adopt different jargon, conceptual frameworks, and motivating examples. These differences aren't always reconcilable. We aim to articulate the *spirit* of naïve realism, laying out substantive commitments without committing to the overly specific details of one framework.

Before moving forward, four clarificatory notes are required. First, we have chosen to focus on the three issues articulated above (the absence of remembered events, the use of traces in remembering, and the constructive character of memory) because these are the issues which arise most often in our discussions of naïve realism with philosophers of memory. These three issues are not unique to memory (e.g., perception is constructive too), nor

do they exhaust potential challenges to naïve realism. A central challenge to naïve realism, about either perception or memory, is giving an account of "bad" or *failed* cases. In perception, these would be cases of perceptual hallucination, i.e., cases in which the object experienced doesn't exist, or doesn't exist anymore (e.g., hallucinating Plato). In memory, these would be cases of mnemonic confabulation, i.e., cases in which the recalled event never happened.² We will briefly touch on this challenge as relevant points arise throughout the paper, but we largely set it aside for future work. Adequately handling hallucination and confabulation requires first doing the kind of preliminary work we tackle in this paper.

Second, what we mean by "memory" and "remembering" is what is commonly referred to as "episodic" (Michaelian 2016b) or "recollective" (Debus 2008) memory or remembering. Episodic or recollective memories have an experiential character which, according to some authors, allow us to "re-live" or "re-experience" past events in the mind (see, e.g., Tulving 2002; Debus 2008), e.g., as when you remember your tenth birthday party or when you remember your last visit to your hometown. They are often contrasted with "semantic" or "propositional" memories, such as your memory that Italy is in Europe, which don't have an experiential character and only allow us to access general information about the world (see, e.g., Tulving 2002; Bernecker 2010).

Third, since we use the philosophy of perception literature as the starting point for our discussion of memory, we follow the practice adopted in that literature when it comes to our use of the terms "naïve realism" and "representationalism". Table 1 explains in detail what we mean by them and how they relate to some other key terms that have been used in discussions about the nature of memory and perception.

²We use "mnemonic confabulation" here as the direct counterpart of "perceptual hallucination". It is controversial, however, whether confabulations should be understood in this way. Recent accounts of mnemonic confabulation have emphasized its clinical character, thus attempting to account for it in terms of the malfunctioning of memory systems (e.g., Michaelian 2016a). Other accounts have attempted to establish that mnemonic confabulations differ in crucial ways from clinical confabulation, thus being a category of its own (e.g., Robins 2020). On views of the latter type, a mnemonic confabulation can be the product of a normally functioning memory system that, on a given occasion, fails to target (or represent) a past event. Since discussions about naïve realism and hallucinations have focused on non-clinical (or "philosophical") cases, understanding mnemonic confabulations in this way seems best suited for the task of considering the prospects of memory naïve realism.

Views on the ontological nature of mental states or experiences	
representationalism	The view that memory states are, at the most fundamental level, representations, i.e., intentional relations to contents (see, e.g., Fernández 2019); compatible with both indirect and direct realism (e.g., Searle 1983; Dretske 2003; Barkasi and Rosen 2020).
intentionalism naïve realism	Another name for representationalism The view that takes seriously the naïve introspectable phenomenology of experience, especially how experience presents itself as a relation to the external world through which the world itself is directly revealed (see, e.g., Debus 2008; Fish 2009; Aranyosi 2021).
relationalism	Another name for naïve realism, albeit one that emphases the naïve realist commitment to experi- ence as a relation without evoking their commit- ment to how that relation allows for direct access to the world.
Views on the nature of the objects of awareness of perception and memory*	
direct realism	The view that we are immediately aware of objects residing in the external world, such that we have direct or unmediated access to them (e.g. Reid 1764). The view that what we are immediately aware of
maroot roundin	in perception and memory are representations or ideas, which only <i>indirectly</i> make us aware of the

* Because these two questions are orthogonal, representationalism and naive realism address a different question than direct and indirect realism. Importantly, there is room for the representationalist to be a direct realist (e.g., Searle 1983; Dretske 2003; Barkasi and Rosen 2020).

external world (e.g. Locke 1975; Hume 1739).

Table 1: Core Positions in the Naïve Realism Debate

Fourth, and finally, one concern that one might have about our overall project is that once the relevant clarifications are made concerning naïve realism, our position, namely, that naïve realism is not threatened by the problems we discuss, will become trivially true.³ We think that this is correct, but we don't think that it poses a problem to our argument. We take it that achieving conceptual clarity is a key aspect of philosophical work, and this is what we hope to do in this paper. Thus, if once the relevant arguments are spelled out and their theoretical commitments are specified, we no longer have good reasons for continuing to ignore naïve realism in philosophy of memory, we believe that that alone is already an important step toward "reviving" naïve realism in this area of philosophy.

With that in mind, we proceed as follows. Section 2 introduces naïve realism about perception and outlines three theses characterizing it: Directness, Access, and Relation. Section 3 argues that Directness, Access, and Relation can be motivated in relation to memory. We then proceed to consider in more detail the three ideas introduced here as challenges to naïve realism. Thus, Section 4 considers the worry pertaining to the intentional objects of memory. Section 5 considers the worry pertaining to memory traces. And Section 6 considers the worry pertaining to the constructive character of remembering. We argue that none of these challenges are successful in dismissing naïve realism about memory, and hence that naïve realism should be taken seriously by philosophers of memory.

2 Naïve realism in philosophy of perception

Like in philosophy of memory, naïve realism as a theory of perception goes back to the early twentieth century, with antecedents stretching back into the early modern period. The view has morphed over the centuries, tugged and pulled as adjacent philosophical concepts developed. Contemporary proponents often define naïve realism as the view that takes seriously how perception introspectively strikes a naïve subject. In the eighteenth and nineteenth centuries, philosophers rejected this view based on emerging knowledge of physics, sensory anatomy, and old arguments from perceptual subjectivity and error. Some endorsed radical alternatives like idealism or variations of what would evolve into the twentieth century sense-datum theory (e.g., Berkeley 1973; Hume 1739; Russell 1912; Price 1932). Others rejected these

³We thank an anonymous referee for calling our attention to this issue.

radical departures and tried to save as much of the naïve, or "common sense", view as possible (e.g., Reid 1764; Moore 1919; Laird 1920). Initially spurred by the rise of disjunctivism—the view that "veridical" or "genuine" experiences differ in kind from hallucinatory ones—some contemporary philosophers of perception have embraced the naïve view (e.g., Austin 1962; Snowdon 1990; Martin 2006).

How does perception introspectively strike a naïve subject? Consider the following example. When you look at a bowl of oatmeal you're eating, your experience introspectively strikes you as if you're perceiving (seeing, tasting, smelling) the oatmeal itself (Valberg 1992; Fish 2009). The oatmeal, of course, is a mind-independent bit of the physical world (hence naïve realism, as opposed to idealism). More specifically, when looking at and tasting the oatmeal, the oatmeal introspectively seems to be intruding into your stream of phenomenal consciousness, as if your visual, olfactory, and gustatory senses are revealing some bit of the external world to you or bringing it "into mind" (McDowell 1986; Johnston 2006; Hellie 2014). At least, that is how perception introspectively strikes a naïve subject. Naïve realism endorses this naïve introspection and says that perception is, indeed, an intrusion of sensory stimuli into the mind.⁴

Note that the above points are often framed in terms of *objects*. It is some physical object, e.g., your bowl of oatmeal, and its properties which intrude into consciousness. Here we're talking of *sensory stimuli*, which we take to include primarily distal physical objects and their properties. It's worth emphasizing that perception naïvely strikes us not as the intrusion of any old objects and properties into consciousness, but the objects and properties with which we interact through our senses.

From this starting point we can identify three theses which are baked implicitly into naïve realism: *Directness*, *Access*, and *Relation*.⁵

Directness: Sensory stimuli themselves intrude into consciousness, i.e., we

⁴Sometimes philosophers put this same point using jargon, e.g., saying that sensory stimuli are *constituent parts* of experience, or that experience *fundamentally depends on* the sensory stimuli being experienced (e.g., Martin 2004; Campbell 2002, 114; Hobson 2013, 551; Genone 2016, 6). Debus (2008, 406) uses this jargon in her development of memory naïve realism. The more informal talk of intrusion or revealing is easier to understand and more faithful to the naïve phenomenology.

⁵All three are claims about the nature (or metaphysics) of perception, but the whole point of naïve realism is that each is reflected in the phenomenology of perception. Again, we get these theses simply by taking the phenomenology seriously.

don't perceive them through some intermediary.

So, naïve realism is a form of direct realism, in contrast to forms of indirect realism like the sense-datum theory (e.g., Russell 1912; Price 1932; Jackson 1977). But, because naïve realists also endorse Access and Relation—theses which are independent of this directness claim—not all direct realists are naïve realists (see also Genone 2016).

Access says that sensory stimuli are revealed to us in perception. There are three construals of Access. The first is a (truly) naïve view:

Access (Naïve): Stimuli are revealed in experience accurately, or as they "really are".

Contemporary naïve realists reject this take, as it quickly falls to prima facie cases of perceptual error, like experiences of Müller-Lyer lines. Standardly, they instead hold the following view:

Access (No Content): Stimuli are revealed in experience, but without being revealed as being any "way".

This second version of Access denies that perceptual experience has content. When you look at the Müller-Lyer lines, the idea is that you are simply aware of the lines themselves, without your perceptual experience itself taking a stand on the lengths of the lines (Travis 2004, 2013; Brewer 2011). The error—that the lines are unequal—enters as a mistaken post-perceptual judgment (Kalderon 2011; Genone 2014). The perceived stimulus, although not having some property P, is similar to other stimuli with P, and you mistakenly judge the stimulus to be P.

Many philosophers find this approach implausible, holding that stimuli always "look" or "appear" some way in experience, thus introducing content (Siewert 1998; Byrne 2009; Siegel 2010; Schellenberg 2011; French 2013; Logue 2014). In reply, some naïve realists accept some version of experiential content, but point out that while perception is an intrusion of sensory stimuli themselves into consciousness, that intrusion is (of course) facilitated by sensory systems which work to reveal the stimuli. These sensory systems shape the experience (Campbell 2002; Logue 2012; Gomes and French 2016; Clarke and Anaya 2019), and hence can distort a stimulus and thereby lead to inaccurate perception. This leads to a third construal of Access:⁶

 $^{^6\}mathrm{Fish}$ (2009) and Phillips (2016) give explanations of illusions which cross-cut these two approaches.

Access (Distortion): Stimuli are revealed in experience to be some way, with the possibility of distortion or error introduced by our sensory modalities.

To be clear, we aren't endorsing the inference from "looks" to content; we're merely pointing out that many have attacked naïve realism on this basis. We agree that the first (truly naïve) construal of Access is unworkable because of apparent perceptual error, but remain neutral on whether that error should be located in post-perceptual judgments (second construal of Access) or explained as distortion induced by our sensory systems (third construal of Access). The point is just that the naïve realist has options for explaining perceptual error.

The third thesis implicit in naïve realism, Relation, is that we can only perceive stimuli with which we're actually interacting through our sensory systems. After all, if perception is a revealing of sensory stimuli, then it requires some actual thing out there in the world (a stimulus) which your sensory systems are revealing. An alternative, common way to put this point is as follows:

Relation: Perception is, at the level of ontological category, a way of relating to a sensory stimulus.

For example, there are many ways you can be related to your oatmeal: you can be the person who cooked it, you can be standing three meters from it, or (on this view) you can be perceiving it.

This thesis is commonly put by saying that perception "is a relation". While correct, this phrasing often gives the wrong impression. It leads those not inculcated into the naïve realist approach to ask "well, which relation is perception?", and then to search for candidate relations, e.g., the casual relation between stimulus and perceptual brain state. This question confuses the idea. The idea is not that there's some *other* relation out there which is your perception, but that your perception of sensory stimuli and their properties *just is*, at the level of ontological category, a way of relating to them.

⁷The claim that perception is a relation to objects is often dismissed as entailing the implausible conclusions that experiences of qualitatively identical twins nonetheless differ in phenomenal character (Schellenberg 2010), or that experiences of the same particular object necessarily share some phenomenal similarity (Mehta 2014). While some naïve realists have tried to defend these sorts of views, others reject them and deny any such entailments (Martin 2002a; Fish 2009; Gomes and French 2016; Clarke and Anaya 2019; French and Gomes 2019).

For example, if you're told that *standing-three-meters-apart* is a relation, it would not make sense to ask *which* relation it is; the same goes for the naïve realist claim that perception is a relation.⁸

The contrast here, of course, is the representationalist approach (e.g., Anscombe 1965; Harman 1990; Dretske 2003), according to which perceptual states are (again, at the level of ontological category) representations. According to the naïve realist, when you see your oatmeal, your perception of the oatmeal is a way of relating to it. According to the representationalist, when you see your oatmeal, your perception is a state you occupy which represents the oatmeal.

Representationalists can be direct realists (Crane 2006; Genone 2016), holding that what you perceive when you token these perceptual representational states are the stimuli represented by them, not the representational states themselves (e.g., Dretske 2003; Clark 2012). For these representationalists, your state as you perceive is a representation, but that does not mean you're experiencing your perceptual state or any other intermediary representation—you are experiencing what that state represents (see Barkasi and Rosen 2020). What makes representationalism distinct from naïve realism is how at least some kinds of representations can be tokened independently of what they represent. For example, while I can't use the word 'today' to refer to January 22, 2021 unless it's January 22, 2021, I can use 'January 22, 2021' to refer to this date no matter what the date of utterance. Likewise, while representationalists acknowledge that some perceptual representations may depend on interaction with a sensory stimulus (Burge 1977, 2010; Evans 1982; Matthen 2005; Schellenberg 2010), they all hold that at least some aspects of perceptual representations are independent of interaction with sensory stimuli and, hence, that perceptual states (i.e., perceptual experiences) can be reproduced in the absence of interaction with sensory stimuli. For example, the parts of your perception of your oatmeal representing its color, shape, smell, and taste are reproducible even when there's no oatmeal around to see, smell, or taste; reproducing these representations would lead to a qualitatively (i.e., phenomenally) identical, albeit hallucinatory, experience. For these reasons the representationalist rejects Relation.

⁸It makes sense to ask whether the relation is sui generis (the standard naïve realist view, Fish 2009, 14; Logue 2009, 21), or analyzable into other relations. It also makes sense to further ask whether the relation supervenes on other relations (Debus 2008). But the claim that experiences are relations is a coherent claim which stands on its own.

Actually, to be more precise, the representationalist is likely to agree that your perception of the oatmeal is a relation in which you stand to it. Since, as just noted, the representationalist is likely to agree with Directness and (some version of) Access, it starts to look as if there's no substantive dispute between naïve realism and representationalism. The key difference is how the representationalist and naïve realist understand the relationship between perception and perceptual experience. For the representationalist, perceiving the oatmeal involves two dissociable components: (1) a phenomenally conscious mental state (an "experience"), and (2) a broader state of affairs involving both that mental state and things like a causal connection to a sensory stimuli. The representationalist accepts that (2) is relational, but denies that (1) is relational. The naïve realist, in contrast, takes (1), the phenomenally conscious mental state itself, to be a relation; indeed, the naïve realist collapses (1) and (2) together into the same state.

The naïve realist might (but need not) accept that there are perception-like phenomenally conscious mental states lacking the broader external state typical of perception—hallucinatory experiences—but will typically then adopt disjunctivism, i.e., the view that these experiences are fundamentally different kinds of mental states than perception. We use the term "perceptual experience" in this broad, inclusive manner, encompassing both perception (which involves experience) and hallucinatory experiences, without necessarily implying that the two cases involve the same kind of mental state.

As standardly conceived, there are two ways things can go wrong in perception: (a) illusion, in which there exists a sensory stimulus that's experienced, but experienced inaccurately, and (b) hallucination, in which you introspectively seem to be experiencing an object, but there does not exist a sensory stimulus with which you are interacting. As noted above, illusions threaten Access, and we sketched how naïve realists handle this case. Representationalism handles both illusion and hallucination by appeal to representations, which can both represent existing things inaccurately, but also represent what doesn't exist at all. The standard move by naïve realists is to claim that they are only offering a theory of perception, i.e., "good" or successful cases of perception. This move excludes hallucination from the scope of the theory and is another way to frame disjunctivism. As mentioned, disjunctivists hold that while hallucinatory experience may introspectively seem very similar to perception (or even be introspectively indiscriminable), it is nonetheless a different kind of mental state (see, e.g., Austin 1962; Hin-

ton 1967; Snowdon 1980; Martin 2004; Fish 2009; Logue 2013).⁹ Exactly what this means and how it works out varies considerably between disjunctivists; no brief summary would do justice to the debate (see Haddock and Macpherson 2008).

Not all naïve realists are disjunctivists. Some have tried to give a common account of "good" and "bad" cases of perception (Johnston 2004; Kennedy 2013; Knight 2014; Raleigh 2014; Ali 2018; Barkasi 2020, 2021; Masrour 2020). These accounts vary even more than disjunctivism, but the basic approach is to either (i) reconstrue "bad" cases (perceptual hallucination) as "good" cases of successful perception, or (ii) find a common core to the "good" and "bad" cases that doesn't make the relational nature of the "good" cases redundant. Suffice to say, the question of whether and how naïve realists about perception can handle hallucination is a huge debate. That this debate is so active, rich, and enduring demonstrates that the bad case of hallucination does not provide a knock-down argument against naïve realism.

Contemporary naïve realists have spent the last two decades arguing that their view is compatible with perceptual error and hallucination, the computational nature of sensory neural processing, and other points which have been taken since the eighteenth century to rule out the naïve view. Their position is that we should take seriously the phenomenological, i.e., introspective, observation that perception strikes us as an intrusion into consciousness of stimuli revealed by our senses, unless forced to abandon it by other considerations.¹⁰

⁹Hallucinations drive the eponymous "argument from hallucination". Moore (1903); Russell (1912); Price (1932); Ayer (1956) give classical formulations. Jackson (1977); Snowdon (1990); Valberg (1992); Robinson (1994); Smith (2002); Martin (2006) give more recent discussions. The basic idea is that your experience can introspectively strike you as if you are perceiving a stimulus, even if (as in hallucination) there is no such sensory stimulus; hence we can't (as the naïve realist wants) take perception at face value. For discussion in connection to memory, see Furlong (1954); Sant'Anna (2020); Sant'Anna and Michaelian (2019). It's fairly standard in philosophy of perception to understand disjunctivism and representationalism as two competing ways to save direct realism from the argument from hallucination (see Crane 2006; Dokic and Martin 2012; Genone 2016).

¹⁰Other arguments for naïve realism try to establish that it's required to explain the transparency and particularity of experience (Martin 2006, 354–55; Fish 2009, 18–23; Logue 2012; Hobson 2013, 555; Knight 2014, 3). A second influential, well-known approach to arguing for naïve realism proposes that it's necessary to explain how perception makes objects available for demonstrative thought (McDowell 1986; Campbell 2002, ch 6,7; Campbell 2004; Martin 2002a, 197–200). There are also Johnston's argument from experience's epistemic role, Martin's argument from sensory imagining, and Fish's argu-

3 Naïve realism in philosophy of memory

The discussion in the previous section allows us to formulate naïve realism about memory along the lines of the three theses introduced. According to naïve realism about memory, past-perceived events themselves intrude into consciousness. Rather than being remembered through some intermediary, memory is a direct experience of those events (Debus 2008). This is Directness applied to memory. Moreover, naïve realism says that past-perceived events are revealed to us in memory. This is the mnemonic version of Access. As we discuss below, just like its counterpart about perception, Access about memory also allows for different interpretations. Finally, naïve realism says that we can only remember events with which we actually interacted through our memory systems. Had the event never happened, we could not now remember it. This is the memory version of Relation.

Is the naïve phenomenology of remembering characterized by Directness, Access, and Relation? Naïve realists about memory in the early twentieth century thought so. They thought that remembering introspectively strikes us as direct "apprehension" of past-perceived events. Laird (1920, 54) says, "The simplest hypothesis is probably the best, and we should accept the facts as they seem to be, unless something in the character of apprehension shows that our acquaintance with the past must be indirect." While these early memory naïve realists discussed the phenomenology of memory extensively (e.g., see Taylor 1938; Laird 1920; Taylor 1956), here we will simply make a few remarks which we hope motivate the case.

Call to mind some particular past event, e.g., perhaps your tenth birthday party. This recall has phenomenology. There is "something it is like" for you (Nagel 1974), i.e., you have an *experience*. As you recall the party, this experience (your "memory experience") may be less "vivid" than the original perceptual experience (Hume 1739), but it still introspectively strikes you as if you're perceiving the event again (Teroni 2017, 23). While the

ment from the hard problem of consciousness (Johnston 2006, 2011; Martin 2002b; Fish 2009, 75–79).

¹¹If you perceive an event, your memory system encodes it, and that encoding later allows for successful recall of the event, it's trivially true that you've interacted with the event through your memory system. Relation says something more. It says that your mental state as you successfully recall the event could not be reproduced without you actually having perceived and encoded that very event. Your mental state of recall does not somehow reduce to, or depend only on, the state of your memory system itself.

lack of "vividness" and your knowledge that you can't really be perceiving the event may tempt you to interpret your experience as an experience of an "image", the experience itself simply presents the event. The memory experience presents the event as past, i.e., with a "feeling of pastness" (Russell 1921; Taylor 1938; Tulving 1985; Matthen 2010b; Perrin et al. 2020), but it still presents the event itself. It is as if you are "re-living" (Suddendorf and Corballis 2007, 299) or "re-experiencing" (Tulving 2002, 6) the party again. While your memory experience is not a perfect match or literal replaying of the original perceptual experience (Byrne 2010; Matthen 2010a), the differences (e.g., less vividness and an accompanying feeling of pastness) don't take away from the way in which remembering introspectively strikes us as a revealing of past-perceived events.

Two clarifications are required here in relation to our use of the notion of a "memory experience". First, the talk of "experiences" (understood as a count noun)—both in the context of this and the previous section—is largely for convenience. The same points could be reframed purely in terms of the phenomenology (the "phenomenal character") of remembering and perceiving. For example, instead of saying that memory experience presents events as past, we could say that the phenomenology of remembering conveys that the event is in the past. Alternatively, we could say that when you call to mind your tenth birthday, it introspectively strikes you as if what you're calling to mind is something from the past. 13 Second, while the standard view in philosophy of memory is that "memory" is a factive term (although cf. Hazlett 2010; De Brigard 2014a; Michaelian 2016b), we use the term "memory experience" in a non-factive way. In other words, a memory experience can take place even when the remembering relation does not obtain, as in cases of mnemonic confabulations (Robins 2020). We remain neutral, however, on the question of whether the memory experiences had by subjects in the "good" and "bad" cases are the same (types of) experiences, including whether they have the same phenomenology. This is a substantial dispute among naïve realists, and given that our goal is simply articulate the main tenets of the view, we will not try to settle this issue here.

Now, the naïve phenomenology of remembering does indeed involve Di-

 $^{^{12}}$ The psychologists who talk about re-living or re-experiencing the past may not take these expressions seriously as accurate descriptions of remembering, but presumably they use them because they do capture the naïve phenomenology of remembering—and that's all that matters for us here.

 $^{^{13}}$ Talk of "phenomenology" is just talk of how things introspectively strike you.

rectness, Access, and Relation. When you remember, it introspectively strikes you as if there is some actual past-perceived event (Relation) which itself (Directness) is being revealed to you (Access). Your memory experience strikes you as if it's of your tenth birthday party *itself*, not of an "image" of the party. Your memory experience strikes you as if it's revealing the party, i.e., granting you access to what happened. The experience strikes you as if it depends on (i.e., is a relation to) the party, as if, had the party never happened, you could not now be having this experience. After all, you can't re-live something that never happened.

It might help to contrast typical memory experiences with a case in which Directness, Access, and Relation all fail to be reflected in the phenomenology. Close your eyes and imagine (in your "mind's eye") a landscape painting hanging on a wall, frame and all. Don't try to call to mind some actual painting you've seen and don't imagine a painting of a real landscape with which you're familiar. This imaginative experience is very different from your memory experiences. It does strike you as if it's of an *image* (the painting); after all, you are literally imagining a physical image. It does not introspectively strike you as if it's revealing to you some actual object (a real painting); after all, you are imagining something you completely made up. It doesn't strike you as if, were the experienced painting not real, you could not now be having the experience. Typical memory experiences are very unlike this imaginative experience; they do have the phenomenology of Directness, Access, and Relation.

Thus, reflection on the experience of remembering seems to support Directness, Access, and Relation as characterizations of the naïve phenomenology of memory. In what follows, we will consider the prospects of Directness, Access, and Relation in connection to the three issues discussed in Section 1: (i) the ontological status of the intentional objects of memory (Section 4); (ii) the nature of memory traces (Section 5); and (iii) the constructive character of remembering and the pervasiveness of memory errors (Section 6). We will see that those can be reinterpreted as worries pertaining to at least one of the core theses that define naïve realism. Thus, by considering how naïve realists might respond to them, we will argue that naïve realism cannot be easily dismissed, and hence that it deserves more attention from philosophers of memory.

Before continuing, it's worth some brief remarks on the "bad" cases. What about those cases in which you introspectively seem to be remembering some event, but in which there is no past-perceived event which you

are now remembering through your memory system? For example, you might (wrongly) "recall" going on a school field trip to the Smithsonian Institution when you were ten, although you never went on such a trip or anything like it. In these cases, "remembering" (i.e., a memory experience) can't be the revealing of a past-perceived event itself, as there is no such event to be revealed. As with naïve realism about perception, memory naïve realists could adopt some form of disjunctivism; some have explicitly done just this (e.g., Taylor 1938, 223; Debus 2008, 414). They could say that while some memory experiences (the "good" or successful cases) really are what they introspectively seem to be, other memory experiences (the "bad" or confabulatory) cases are a different type of mental state. Alternatively, there might be approaches available to the naïve realist which don't entail any form of disjunctivism. As noted in the previous section, these approaches could either reconstrue the "bad" cases as misinterpreted "good" cases, or find a common core to the "good" and "bad" cases which explains the similarity without making the relational nature of the good cases redundant. Filling out all these possible options is a project we leave for future work, save for a few points as they arise below.

4 The intentional objects of memory

The first worry motivating skepticism about naïve realism discussed in Section 1 is that it is at odds with the more basic intuition that memory is awareness of things in their absence. Another way of formulating this worry is by saying that the intentional objects of memory do not co-exist or co-occur with memory experiences. Memory experiences are had in the present, whereas remembered events are in the past. How can events that happened in the past intrude into the mind now? Since the past does not exist in the present, naïve realism cannot explain how awareness of past-perceived events is possible.

Understood in this way, these considerations pose mostly a challenge to Relation, or the claim that we can only remember events with which we are actually interacting through our memory systems. If remembering is a relation, in particular, a two-place relation between a subject who remembers and a remembered event (e.g., s remembers e, see also Debus 2008, 410), then memory can only happen if both relata co-exist at the time of the relation's instancing. However, while the subject exists at the time of instancing

(namely, the present, the time when the subject remembers), the second relatum, the remembered event, is in the past. So, the relevant relation cannot obtain.¹⁴ Thus, if naïve realism is true, memory is, by definition, impossible.

To forestall an objection, the argument is not that something needs to exist or be in the present in order for us to be in a relationship to it. ¹⁵ That would be an obviously bad argument, since (to take one example) we can be related to our grandparents (by the *descends-from* relation) even after they die. Instead, the argument is that something needs to co-exist with a relationship's instancing in order for us to be in a relationship with it. So, for example, when you instance x descends-from y with some long-dead ancestor, the instancing of that relation stretches back to, and began with, that ancestor's procreative acts. In general, instances of temporally extended relations (e.g., happened-five-years-before) are precisely that: temporally extended.

What can the naïve realist say in response? There are three ways to motivate Relation here, and as such, respond to the worry pertaining to the intentional objects of memory. The first is suggested by Debus (2008, 409– 412). It goes that the remembering relation is able to be instanced at the time of remembering (potentially long after the remembered event ceased to exist) because it *supervenes* on temporal, spatial, and causal relations the instancing of which stretch back in time to the remembered event. Very roughly, the idea is that (necessarily) s remembers e if and only if (i) e occurred before the time of instancing, (ii) s traces a continuous spatiotemporal path between perception of e and the present remembering event, and (iii) the present remembering event consists in the (re)activation of a memory trace with a causal connection to e. We might think of this as a piggybacking strategy; although the remembering relation is instanced now, in the present, it stretches back into the past because it metaphysically supervenes on instances of other relations which themselves stretch back into the past. 16 The plausibility of this strategy seems to rest on the use it makes of memory

¹⁴A natural move, for an opponent of naïve realism, is to keep Relation but give up Directness. Perhaps remembering is first and foremost a relation to a memory "image", which itself is related (e.g., perhaps by causation or resemblance) to the remembered event. This move might suggest that the problem really challenges Directness, not Relation, but we've chosen to frame the issue in this way because the replies below will save both Directness and Relation. Further, we'll address this line of thinking in Section 5.

¹⁵We thank an anonymous referee for pushing this point. Here we have adopted some wording from their report.

 $^{^{16}}$ For example, the simple temporal relation x happened-before y has instances which stretch across time, including as temporal relata things that need not have ever co-existed.

traces and causation. Hence, its prospects depend ultimately on whether naïve realism can be made compatible with the idea that memory traces are required for remembering. Since we consider this question in more detail in Section 5, we will leave it aside for now.

Debus' proposal naturally raises a second response. Instead of proposing that remembering is a complex relation that metaphysically supervenes on simpler relations instances of which stretch back in time, the memory naïve realist might propose that remembering is a primitive relation with temporally extended instances (e.g., just as happened-before is plausibly a primitive relation with temporally extended instances). Given that the reactivation of memory traces seems to play a crucial, constitutive role in the process of remembering, this option may be less plausible than Debus' proposal. A second reason for favoring Debus' proposal is that it saves the plausible intuition that (instances of) remembering begin in the present, when you remember.

The third option available to naïve realists is to adopt eternalism (Bernecker 2008). Eternalism is the view according to which past-perceived events continue to exist even when they become past. Therefore, there is no mystery in how they can *now* be constituent relata of the remembering relation. The current instance of remembering does indeed (in some sense) co-exist or co-occur with past-perceived events—it is just that they are located in different temporal moments. Eternalism is by no means an uncontroversial view, but it has played a substantial role in how philosophers conceive of the nature of time, with various authors having defended it or given it serious consideration (Dainton 2013; Bardon 2013; Callender 2017). Moreover, it has been argued recently that even naïve realism about perception requires commitment to eternalism (Moran 2019). Hence, there's no special problem for a naïve realist view of memory, as opposed to a naïve realist view of perception. So, while naïve realists about memory have not discussed eternalism, it provides them with a potentially useful resource to motivate Relation.

The association of naïve realism with eternalism does, however, raise some intricate questions that naïve realists will need to address eventually. For instance, one concern is that conceiving of past-perceived events as existing and as interacting with memory systems is potentially at odds with the naïve phenomenology of remembering. For past-perceived events are not revealed to consciousness as *existing* things. When you remember your tenth birthday party, you are presented with a past event that existed at some point, but that no longer exists at the time of remembering. If eternalism is true, however, it would follow that you remember a past event as past *and* as existing at the

time of remembering. And this seems to contradict the naïve phenomenology of memory.

A reply from the naïve realists is that this worry assumes memory experiences reveal past-perceived events as they really are (i.e., both in the past and still existing). As we discuss in Section 6, naïve realists aren't committed to experience being fully accurate or fully revelatory. The naïve realist can say that memory experiences reveal some aspects of remembered events (e.g., that they're in the past), but not others (e.g., that they continue to exist). Given their dependence on memory traces, our memory systems are only poised to reveal that what we remember is in the past, not that it continues to exist (since that continued existence does not leave new memory traces).

Another concern is that if both memory and perception are relations to existing things, then an account of what makes them different is required. Often, when attempting to characterize the perceptual relation, naïve realists have spoken of a relation of acquaintance (e.g., Fish 2009, 15). Early memory naïve realists characterized remembering as a form of acquaintance too, or even collapsed the distinction between perception and memory, holding that remembering was literal perception of the past (e.g., Taylor 1938). Naïve realists need an account of why memory is typically about the past and why perception is typically about the present. In other words, they need an account of why perception does not, even if it can in principle, relate to present existing things, and why memory does not, even if it can in principle, relate to present existing things. But not only that, naïve realists also need an account of why relating to an existing thing by means of perception is experienced differently from relating to an existing thing by means of memory (Martin 2015, 42).

In reply, one option is for the naïve realist to reject the view that remembering is perception of the past. It's unclear why they must follow the traditional view; can't they accept that remembering and perceiving are fundamentally different relations? István Aranyosi (2021), a contemporary memory naïve realist, wants to hold onto the traditional approach of one relation. There is an option available to this sort of memory naïve realist. Just as different sensory modalities (e.g., vision vs touch) afford access to different objects and properties, and give rise to experiences with different phenomenology, the memory naïve realist can think of the memory system as its own kind of perceptual modality. A difference in neural hardware and functioning leads to a difference in intentional objects and phenomenology across visual and tactile experience, while each is still a way of instancing

the perception relation; similarly, the neural hardware and functioning of the memory system leads to a difference in intentional objects and phenomenology while still affording a way of instancing the perception relation.

In summary, while at first glance considerations about the intentional objects of memory seem to challenge naïve realism, we have seen that those challenges can be dealt with within a naïve realist framework. So, insofar as the intentional objects of memory are concerned, naïve realism is far from being a non-starter.

5 Memory traces

The second worry motivating skepticism about naïve realism discussed in Section 1 is that appeal to memory traces, which has been quite standard in the recent philosophy and psychology of memory (Sutton 1998; Bernecker 2010; Michaelian 2011; Robins 2016; De Brigard 2014b, 2020), is incompatible with key claims made by naïve realism. The supposed problem is that if memory involves memory traces, then it is not true that we actually interact with past-perceived events themselves in memory, but rather with memory traces, and it is not true that we become directly or immediately aware of past-perceived events if the relation between memory and past-perceived events is mediated by a memory trace. Put in terms of the theses introduced in Section 2, the problem is that commitment to memory traces is incompatible with, respectively, Relation and Directness.

Let us begin by addressing the challenge raised to Directness. Does the fact that memory involves memory traces imply that we cannot become consciously aware of past-perceived events in an immediate or direct way? The thought that it does, we suggest, stems out of an outdated understanding of memory traces, according to which they are mental representations (Martin and Deutscher 1966) or mental images (James 1892; Russell 1912, 1921; Price et al. 1936) that are themselves experienced by a subject. On this way of conceiving of memory traces, having a memory is a matter of becoming aware of a mental representation that stands for a past-perceived event. As a result, it is the mental representation in question, or the memory trace, that becomes the direct or immediate object of awareness of memory. The past event is, at best, only accessed indirectly. Directness is, therefore, false.

As it has been pointed out recently, however, memory traces are not themselves intentional objects of experience, i.e., things of which we're consciously aware (Cheng et al. 2016; Werning 2020). They contribute causally to memory, but they are not constitutive of it.¹⁷ So, memory is not a matter of becoming aware of a mental representation that only indirectly stands for a past event.

To see this more clearly, consider a parallel to perception. A naïve realist about perception can accept that some intermediary state contributes causally to perception—e.g., information processing in the visual cortex—while still denying that this state is constitutive of perception. This is compatible with Directness applied to perception, i.e., that we become directly aware of events or objects. In a similar fashion, a naïve realist about memory can accept that some intermediary state contributes causally to memory—e.g., a memory trace—while still denying that this state is constitutive of memory. In other words, memory traces merely show that remembering is not a causally direct process (i.e., a process lacking causal intermediaries). So, the fact that memory traces contribute causally to memory, but are not constitutive of its intentional objects, does not threaten Directness.

Let us consider the worry concerning Relation now. The analogy to perception just discussed helps us understand why appeal to memory traces does not harm Relation. If we understand a memory trace as an intermedi-

¹⁷One might worry here that recent "non-contentful" accounts of traces, such as Werning's (2020) trace minimalism, actually require that traces are constitutive of memory. As a referee points out, memory traces, on Werning's account, encode physical information about the temporal sequence and spatial structure of the events experienced, which, when fed into a scenario construction system, produces our memories (2020, 326). It's unclear to us why this should lead one to claim that memory traces are constitutive of memories. Perhaps the suggestion is that memory traces are constitutive of the processes of remembering, but it doesn't follow from this that they are constitutive of the outputs of those processes, i.e., the conscious states that we call "memories". Since naïve realism is a theory about the latter, the concern doesn't seem to apply here. In addition, Werning takes minimal traces to be necessary causal links that obtain between memory and experience. As he puts it, "Trace Minimalism rejects the need for memory traces to carry representational content, but demands a causal link between experience and remembering to ensure reliability. [...] Minimal traces constitute such a causal link and thereby provide the physical information to be fed into the brain's scenario construction machinery." (2020, 329). Thus, the initial suggestion seems to attribute to trace minimalists the view that memory traces both cause and constitute our memories, which is clearly problematic and which trace minimalists will probably want to deny.

¹⁸Many have tried to argue that naïve realism about perception is incompatible with the inferential nature of sensory processing (e.g., Gregory 1980) or the appeal to representations in explaining how sensory systems work (e.g., Burge 2005; Nanay 2014; Pautz 2018).

ary causal state between a past event and current memory experience, then Relation is no more problematic when applied to memory than when applied to perception. For perception, too, requires intermediary causal states that connect events to perceptual experiences. Those intermediary causal states are what make it possible for subjects to actually interact with perceived objects. A similar move is open to naïve realists about memory. That is, the naïve realist can say that intermediary causal states—understood as memory traces—are what make it possible for people to actually interact with remembered past-perceived events. Again, the crucial point for both the naïve realist about perception and memory is not that memory and perception cannot involve those intermediary causal states, but rather that they are not constitutive of the intentional objects of memory and perception.

It may help to go back to Debus' view, discussed above. Debus does not deny that *some* relation holds between a subject and the memory trace they reactivate when remembering, or that *some* (presumably causal) relation holds between a reactivated memory trace and a past-perceived event. But remembering itself (according to Debus) is a relation between subject and past event which supervenes on these trace-involving relations (plus some other relations). So, the memory trace is needed, but it neither becomes the intentional object of remembering, nor precludes the *emergence* of a direct relation between subject and past event.

John Campbell, from whom Debus draws heavily, holds a similar view about how the perception relation supervenes on the neural states of our sensory systems and the causal relations in which they're intertwined. After extensively theorizing about the underlying neurocognitive representations enabling the perception of objects, Campbell considers the question of whether perceptual experience itself is just a representational state. After all, if the perception of objects (Campbell's main concern) depends on the production of extensive neural representations, isn't that perception representational? Campbell (2002, 119) says that it depends on the work those representations are doing, and provides a helpful analogy. You might think that the purpose of all that neurocognitive machinery is to produce a representation through which we perceive the object, akin to how a TV produces an image we perceive. Alternatively (and the view Campbell endorses), the representations produced by that neurocognitive machinery might instead be constituent parts of a mechanism which allows for the perception of objects. Instead of a TV, imagine a temperamental medium that would go opaque without constant adjustment and recalibration. The idea is that our neural

sensory systems aren't like the TV, producing an image we "see", but instead work to maintain the transparency of this temperamental medium (through which we perceive the world).

All this talk of a direct relation which supervenes on the indirect causal connections and neural processing of perception and memory might strike the reader as gratuitous. What do we gain by positing such a relation? A related, further worry is that such a posit is unfalsifiable: Whatever the empirical facts discovered, naïve realists can always claim that some further direct relation supervenes on the lower-level facts.

In reply, it needs to be kept in mind that the naïve realist is aiming to explain our first-person, subjective experience while also accounting for the scientific data. The payoff for positing a supervening relation is that it reconciles the naïve phenomenology of remembering and perceiving with the scientific data on the mechanisms of memory and perception. As discussed in Section 2, naïve realism isn't the only approach to reconciling naïve phenomenology with the representational mechanisms of memory and perception. Versions of representationalism which hold that we experience what's represented by (neural) mnemonic and perceptual states go at least most of the way towards fitting naïve phenomenology, capturing Directness and Access (but not Relation). Although some naïve realists will disagree on this next point, we propose that the real test for naïve realism is whether this sort of representationalist reduction can be done. That is, if it turns out that the content of perceptual and memory experiences really can be reduced to the content of representational states within the brain, then positing a supervening relation really would be gratuitous with no payoff. Naïve realism becomes interesting because, so you might think (e.g., Noë and Thompson 2004; Fish 2009), there's a mismatch between the content of memory traces and other "subpersonal" states, and the content of subjective experience.¹⁹ So, naïve realism can be falsified, and future debates should focus whether memory experience content reduces to (or matches) the content of memory traces or other "subpersonal" mnemonic neural states.

¹⁹Some researchers will respond to this suggestion by asserting that, of course, experience reduces to neural representations in the brain. But as some naïve realists have pointed out, this is a working assumption of scientists which may or may not pan out once we have more data. Crick and Koch (1995), in their influential early work on neural correlates of consciousness, themselves call neural reduction an assumption. The point is that the science of consciousness is still extremely young, and the existing data does not come close to settling the issue.

A final point worth noting briefly is that a gap between what we experience when we remember and the content of the underlying mnemonic neural states opens up nondisjunctivist approaches to the "bad" cases of failed remembering. The naïve realist can propose that the content of memory traces and other mnemonic neural states involved in remembering makes its way into the memory experience. What we experience when we remember is, in part, what's encoded in these traces, but not exhausted by the traces. When situated in the right sort of causal-historical context, the operation of the memory system functions to reveal past-perceived events to us in ways that go beyond the content encoded in the system's states. In a "bad" or failed case of memory, reactivated traces and other mnemonic states generate an experience with their content, but without the additional content which would be accrued by successfully revealing a past event. Of course, this proposal is just the barest of sketches, but we hope it demonstrates one interesting option available for the memory naïve realist.

In summary, the appeal to memory traces is not necessarily at odds with Directness or Relation. Naïve realism cannot, therefore, be easily dismissed on these grounds.

6 The constructive character of remembering and the pervasiveness of memory errors

The third and final worry motivating skepticism about naïve realism discussed in Section 1 is that naïve realism is incompatible with the constructive character of remembering and the pervasiveness of memory errors. This worry is best or primarily characterized as a challenge to Access. Access says that past-perceived events are revealed to us in memory. The talk of "revealing" is thought to imply that we remember things as they "really were", i.e., without any distortions, and hence to be incompatible with the constructive character of remembering and the pervasiveness of memory errors. Before we consider this challenge in more detail, it will be helpful to briefly discuss what it means to say that memory is constructive and that memory errors are pervasive.

The idea that memory is a constructive process opposes merely *reproductive* or *archival* views of remembering (e.g., Hume 1739; Martin and Deutscher 1966; Bernecker 2010). According to these views, memory is like

an archive of the past, where information about past experiences is stored intact and remains available for recall at later occasions. Thus, when we remember, we "reproduce" past experiences inside our minds by simply retrieving information that was once obtained through perception and that was encoded and stored by our memory systems. Memory is, on this perspective, a fundamentally passive process, in which information is passively—i.e., without any alteration or distortion—registered, retained, and retrieved by our memory systems.

This way of thinking about memory has been challenged by *constructivist* views.²⁰ Influenced by recent developments in cognitive psychology, constructivists argue that instead of being *reproductions* of past experiences based on a single source of stored information, memories are *reconstructions* of past experiences based on different sources of information. Constructivists thus view memory as a fundamentally active process, in the sense that information obtained through perception can be altered in different ways and at different stages of memory processing.

The idea that memory is an active and constructive process is wellestablished in psychology and is starting to become influential in philosophy. In particular, one important implication it has is that memory errors or distortions are pervasive (De Brigard 2014a). If memory is a fundamentally active capacity, then memories are never exact reproductions of past experiences. It is important to note that the claim here is not that memory is systematically misleading or that it never or only rarely provides us with accurate access to the past. Rather, the point is that even the memories that we paradigmatically regard as "true" or "accurate"—the "good" or successful cases of remembering—will involve distortions or errors when compared to how the remembered events first took place in the world. For instance, suppose that you witnessed a car accident and a police officer asks you to report what you saw. You remember a blue car crossing a red light and consequently hitting a red car. It turns out that this is what actually happened. However, you also remember there being a black car stopped at the red light when the blue car crossed it. It is not true, however, that the car was black, but rather it was grey. The memory you have in this case is distorted or erroneous, in the sense that you get the color of the car stopped at the red

²⁰For defenses in philosophy, see Sutton (1998); De Brigard (2014a); Michaelian (2011, 2016b); McCarroll (2018). For defenses in psychology, see Schacter et al. (2007, 2012); Addis (2018, 2020).

light wrong. However, it is an "overall" accurate memory, for you correctly remember what happened, the color of the cars involved in the accident, the order of the events, etc.

The fact that a large number, if not virtually all of our memories, will involve such distortions or errors, is taken to be incompatible with naïve realism, and in particular with Access (Sant'Anna 2020). The problem with this way of thinking is, however, that it relies on an interpretation of Access that naïve realists are not necessarily committed to: namely, that Access implies that we remember things as they "really were", i.e., without any distortions. (We called this interpretation Access (Naïve) in Section 2). As we pointed out in Section 2, there are two additional ways of interpreting Access available to naïve realists.

According to one interpretation, Access says that past-perceived events are indeed revealed to us in memory, but not in any particular "way". (We called this interpretation Access (No Content) in Section 2). In the perception literature, this is the view that perceptual experiences lack content (e.g., Travis 2004; Brewer 2011). The idea is that when you remember the event of your tenth birthday party, for instance, you're "re-acquainted" with it, or "put in touch with it again", but that any content you extract is made on the basis of a judgment over and above your memory experience. For instance, you might remember the birthday cake on your tenth birthday party, and you might erroneously form the judgment that you had strawberry cake. Perhaps you form this erroneous judgment because you almost always have strawberry cake in birthday parties, or perhaps it's a more basic misinterpretation of your memory experience (similar to how, on parallel accounts of perceptual illusions, subjects are said to misinterpret their experience of the Müller-Lyer lines). In either case, your memory did not contain any inaccuracies—it was your judgment that introduced the relevant distortion.

Just as this approach is not widely supported in the perception literature, we anticipate that few will want to adopt it for memory. After all, it sure seems that memory experience involves content. This leads to the second interpretation of Access.

According to this interpretation, the fact that memory reveals past-perceived events to consciousness is not incompatible with distortions or errors resulting from the way memory systems operate. (We called this interpretation Access (Distortion) in Section 2). Here it might be helpful to start with Campbell's temperamental medium analogy (Campbell 2002, 119), introduced in the previous section. Let's start by unpacking the analogy more

carefully. Imagine something like a pane of glass which can be transparent, but quickly turns opaque (for whatever reason) as environmental conditions change. We might imagine some device which compensates for environmental changes, recalibrating the medium constantly. This device grants us access to what's on the other side of the medium—it reveals what's there. Still, even when successful, the device may not do its job perfectly: it may introduce distortion or leave residual opacity.

According to the naïve realist, both our sensory systems and our memory system are like this device. They grant us access to what's on the other side of the medium, but sometimes (or even usually) with distortion. Alternatively, we can draw from Alva Noë's view (Noë 2004). Very roughly, according to Noë, what sensory systems do is modify phenomenal consciousness. We learn to perceive objects and properties by learning how sensory interaction with those objects and properties modify our consciousness. Nothing in this view presupposes that the resulting experience is accurate or without distortion. Similarly, the memory naïve realist can propose that the memory system affects its own modifications of consciousness and we learn to remember by learning how those modifications correlate with past perceptual experience. Whatever the details, the point is that there's no reason to assume the resulting memory experience is accurate.

In terms of Debus' (2008) supervenience view, the suggestion will be that the underlying relations on which remembering supervenes affect the "way" the subject remembers an event (affect the content of the memory). Given that the remembering relation is something that supervenes on, or emerges out of, the states and relations of the underlying memory and sensory systems, it's perfectly plausible that the functioning of these systems—including their lack of accuracy—would affect the overall character of remembering. To put it in terms of the proposal at the end of Section 5 about the "bad" cases, there's no reason to deny that memory experience inherits the (potentially inaccurate) content of memory traces or reconstructed memory representations; the naïve realist need only claim that this content does not exhaust what's experienced, and that the memory system (when operating in the right causal-historical context) reveals past events not themselves encoded in states of the system.

It's worth noting that some early naïve realists, such as Laird (1920, 56–

²¹As Campbell notes, the analogy isn't perfect, because in the perception (and memory) case, there is no medium.

58), already considered the constructive character of memory, including the kinds of cases which motivate constructivists today. Laird did not think that this feature of memory posed a problem to naïve realism. His discussion is brief, but the basic idea seems to be a mix of the two approaches mentioned above. Some memory mistakes are misinterpretations of the memory experience. Others are distortions introduced by the mind: Specifically, he seems to suggest that memory experiences can be composites of accurate recollection with images from imagination. If we think of his "images from imagination" as the content of the system of the memory system, this would fit with the suggestion articulated at the end of the previous paragraph.

Finally, one last question is whether it is true that the constructive character of remembering only challenges Access, but not Directness or Relation. Consider Directness first. If memory is constructive (or reconstructive), it seems clear it can't literally reconstruct the past event. After all, the end result of remembering isn't that the remembered event is literally repeated. But, at least intuitively, it does seem that, in some sense, what's (re)constructed is what's remembered! Think of the car accident example given above. Intuitively, we want to say that you wrongly reconstruct the scene, i.e., making the stopped car grey instead of black. A tempting reconciliation of this tension is the representation theory: what's reconstructed (and remembered) is a representation or an image.

In reply, the memory naïve realist can object at two points. First, they might agree that what's reconstructed is what's remembered, but deny that the reconstruction is *literal* reconstruction. Second, they might agree that there's a kind of literal reconstruction involved, and that this reconstruction is of a representation, but deny that what's reconstructed is what's remembered. The reconstructed representation is (like a memory trace) at the lower level upon which the remembering relation supervenes. Now, it may be that neither of these replies is ultimately successful, but we take it that at this point the dispute is a substantive debate—the directness of remembering can't be briskly rejected by quick appeal to construction.

We pause here to address a natural concern about this second response, a concern which the reader may have also had about our general acceptance of representational traces in Section 5. The concern is that if reconstruction is explained in terms of *representations*, then the response suggested is not really available to naïve realists. For naïve realism denies, after all, that memory is representational. In response, we note that naïve realism is *not* necessarily committed to the view that the memory system does not manip-

ulate representations. Rather, the naïve realist claim is that, at the level of mental states—i.e., at the personal level—memory is not a representational state, but rather a relation of a specific sort. And this does not preclude naïve realists from appealing to representational states to account for the operation of cognitive systems—in particular, the memory system—at the sub-personal level. So, naïve realism should be distinguished from recent enactivist approaches to memory, according to which memory (understood as a cognitive system) does not involve the manipulation of representations (Hutto and Myin 2017; Hutto and Peeters 2018; Michaelian and Sant'Anna 2021).

Consider Relation now. Does the constructive nature of memory make it impossible for memory to be a relation to past-perceived events? It is not obvious why the notion of "construction" should preclude memory from being a relation to a past-perceived event. In fact, the analogy of "construction" is quite amenable to a relational perspective. You cannot, for instance, reconstruct a brick wall without there having been some actual wall which you are now reconstructing. That is, you cannot reconstruct the wall without being related to it. Likewise, you cannot reconstruct a past-perceived event without there having been some actual event which you are now reconstructing. Otherwise put, you cannot reconstruct a past-perceived event without being related to it.

In summary, while there is much more to be said to motivate naïve realism in connection to the constructive character of remembering and the pervasiveness of memory errors, it is not true that these features of memory automatically rule out naïve realist views.

7 Conclusion

In this paper, we argued that naïve realism should be taken seriously as an account of the nature of memory. We did so by drawing insights from the philosophy of perception literature. We began by pointing out that naïve realism about perception is characterized by three different theses related to the phenomenology of perception: Directness, Access, and Relation. We argued that versions of these three theses can also be motivated in connection to the phenomenology of memory. According to memory naïve realism, when we remember, (i) past-perceived events themselves intrude into consciousness, such that we have direct experience of those events (Directness);

(ii) past-perceived events are revealed to us in memory (Access); and (iii) past-perceived events actually interact with us through our memory systems (Relation). Naïve realism thus presents itself as a serious contender to account for the phenomenology of memory, allowing us to make sense of key features of it, such as the fact that it involves an experience of "re-living" or "re-experiencing" past events.

With this characterization of memory naïve realism in hand, we proceeded to consider three challenges to the view. The first challenge was that naïve realism is implausible because the intentional objects of memory do not coexist with memory experiences. The second challenge was that the appeal to memory traces to account for the functioning of memory is incompatible with naïve realism. The third and final challenge was that naïve realism does not make room for the fact that memory is a fundamentally constructive capacity.

We argued that none of these challenges are successful in dismissing naïve realism at the outset. While developing a full response to those challenges is the subject of further work by naïve realists, we hope to have offered enough reasons for thinking that naïve realists have resources at their disposal to pursue those challenges. So, rather than being a non-starter when it comes to memory, naïve realism is a theoretical perspective that needs to be given serious consideration in the recent philosophy of memory debate.

Acknowledgements: We are grateful to three anonymous referees and the members of the Centre for Philosophy of Memory at the Universté Grenoble Alpes for comments on a previous version. A few lines in the explanation of naïve realism about memory have been copied verbatim from chapter 6 of MB's dissertation.

References

Addis, D. R. (2018). Are episodic memories special? On the sameness of remembered and imagined event simulation. *Journal of the Royal Society of New Zealand* 48(2-3), 64–88.

Addis, D. R. (2020). Mental time travel? a neurocognitive model of event simulation. Review of Philosophy and Psychology 11(2), 233–259.

Ali, R. (2018). Does hallucinating involve perceiving? *Philosophical Studies* 175, 60–627.

- Anscombe, G. (1965). The intentionality of sensation: A grammatical feature. In R. J. Butler (Ed.), *Analytic Philosophy*, pp. 158–80. Oxford: Blackwell.
- Aranyosi, I. (2020). Mental time travel and disjunctivism. Review of Philosophy and Psychology 11(2), 367–384.
- Aranyosi, I. (2021). Preteriception: memory as past-perception. Synthese 198(11), 10765-10792.
- Austin, J. L. (1962). Sense and Sensibilia. Oxford: Oxford University Press.
- Ayer, A. J. (1956). The Problem of Knowledge: An Enquiry into the Main Philosophical Problems that enter into the Theory of Knowledge. London: Pelican Books.
- Bardon, A. (2013). A brief history of the philosophy of time. Oxford University Press.
- Barkasi, M. (2020). Some hallucinations are experiences of the past. *Pacific Philosophical Quarterly* 101(3), 454–488.
- Barkasi, M. (2021). What should the sensorimotor enactivist say about dreams? *Philosophical Explorations* 24(2), 243–261.
- Barkasi, M. and M. G. Rosen (2020). Is mental time travel real time travel? *Philosophy and the Mind Sciences* 1(1).
- Berkeley, G. (1973). Three Dialogues Between Hylas and Philonous. Hackett Publishing Company. Ed. Robert M. Adams.
- Bernecker, S. (2008). The Metaphysics of Memory. Springer.
- Bernecker, S. (2010). *Memory: A philosophical study*. Oxford University Press.
- Brewer, B. (2011). Perception and its Objects. Oxford University Press.
- Burge, T. (1977). Belief de re. The Journal of Philosophy 74, 338–62.
- Burge, T. (2005). Disjunctivism and perceptual psychology. *Philosophical Topics* 33(1), 1–78.
- Burge, T. (2010). Origins of Objectivity. Oxford: Oxford University Press.
- Byrne, A. (2009). Experience and content. *Philosophical Quarterly* 59 (236), 429–451.
- Byrne, A. (2010). Recollection, perception, imagination. *Philosophical Studies* 148, 15–26.
- Callender, C. (2017). What makes time special? Oxford University Press.
- Campbell, J. (2002). Reference and Consciousness. Oxford: Oxford University Press.
- Campbell, J. (2004). Reference as attention. *Philosophical Studies* 120, 265–276.

- Cheng, S., M. Werning, and T. Suddendorf (2016). Dissociating memory traces and scenario construction in mental time travel. *Neuroscience & Biobehavioral Reviews* 60, 82–89.
- Clark, A. (2012). Dreaming the whole cat: Generative models, predictive processing, and the enactivist conception of perceptual experience. *Mind* 121 (483), 753–771.
- Clarke, S. and A. Anaya (2019). Naïve realism and phenomenal similarity. *Inquiry*, 1–18.
- Crane, T. (2006). Is there a perceptual relation? In T. Szabo Gendler and J. Hawthorne (Eds.), *Perceptual Experience*, pp. 126–146. Oxford: Oxford University Press.
- Crick, F. and C. Koch (1995). Are we aware of neural activity in primary visual cortex? *Nature* 375, 121–23.
- Dainton, B. (2013). The perception of time. In H. Dyke and A. Bardon (Eds.), A Companion to the Philosophy of Time, pp. 389–409. Wiley Blackwell.
- De Brigard, F. (2014a). Is memory for remembering? Recollection as a form of episodic hypothetical thinking. Synthese 191(2), 155–185.
- De Brigard, F. (2014b). The nature of memory traces. Philosophy Compass 9(6), 402-414.
- De Brigard, F. (2020). The explanatory indispensability of memory traces. The Harvard Review of Philosophy XXVII, 23–47.
- Debus, D. (2008). Experiencing the past: A relational account of recollective memory. *Dialectica* 62(4), 405–432.
- Debus, D. (2014). 'Mental time travel': Remembering the past, imagining the future, and the particularity of events. Review of Philosophy and Psychology 5(3), 333–350.
- Dokic, J. and J.-R. Martin (2012). Disjunctivism, hallucination and metacognition. WIREs Cognitive Science 3, 533–543.
- Dretske, F. (2003). Experience as representation. *Philosophical Issues* 13(1), 67–82.
- Evans, G. (1982). Varieties of Reference. Oxford: Oxford University Press. Fernández, J. (2019). Memory: A self-referential account. Oxford University Press.
- Fish, W. (2009). Perception, Hallucination, and Illusion. Oxford: Oxford University Press.
- French, C. (2013). Perceptual experience and seeing that p. Synthese 190, 1735–1751.
- French, C. and A. Gomes (2019). How naïve realism can explain both the

- particularity and the generality of experience. The Philosophical Quarterly 69(274), 41-63.
- Furlong, E. J. (1954). Memory and the argument from illusion. *Proceedings* of the Aristotelian Society 54(1), 131–144.
- Genone, J. (2014). Appearance and illusion. *Mind* 123(490), 339–376.
- Genone, J. (2016). Recent work on naïve realism. American Philosophical Quarterly 53(1), 1–26.
- Gomes, A. and C. French (2016). On the particularity of experience. *Philosophical Studies* 173, 451–460.
- Gregory, R. L. (1980). Perceptions as hypotheses. *Philosophical Transactions* of the Royal Society B: Biological Sciences 290 (1038), 181–197.
- Haddock, A. and F. Macpherson (Eds.) (2008). *Disjunctivism: Perception, Action, Knowledge*. Oxford: Oxford University Press.
- Harman, G. (1990). The intrinsic quality of experience. *Philosophical Perspectives* 4, 31–52.
- Hazlett, A. (2010). The myth of factive verbs. *Philosophy and phenomenological research* 80(3), 497–522.
- Hellie, B. (2014). Love in the time of cholera. In B. Brogaard (Ed.), *Does Perception Have Content?*, pp. 241–261. Oxford: Oxford University Press.
- Hinton, J. M. (1967). Visual experiences. *Mind* 76, 217–227.
- Hobson, K. (2013). In defense of relational direct realism. European Journal of Philosophy 21(4), 550–574.
- Hume, D. (2000/1739). A Treatise of Human Nature. Oxford: Clarendon Press.
- Hutto, D. D. and E. Myin (2017). Evolving enactivism: Basic minds meet content. MIT Press.
- Hutto, D. D. and A. Peeters (2018). The roots of remembering: Radically enactive recollecting. In K. Michaelian, D. Debus, and D. Perrin (Eds.), New Directions in the Philosophy of Memory, pp. 97–118. Routledge.
- Jackson, F. (1977). Perception: A Representative Theory. Cambridge: Cambridge University Press.
- James, W. (1962/1892). Psychology: Briefer Course. New York: Collier Books.
- Johnston, M. (2004). The obscure object of hallucination. *Philosophical Studies* 120 (1-3), 113–83.
- Johnston, M. (2006). Better than mere knowledge? The function of sensory awareness. In T. Szabo Gendler and J. Hawthorne (Eds.), *Perceptual Experience*, pp. 260–290. Oxford: Oxford University Press.

- Johnston, M. (2011). On a neglected epistemic virtue. *Philosophical Issues* 21(1), 165–218.
- Kalderon, M. E. (2011). Color illusion. *Noûs* 45, 751–775.
- Kennedy, M. (2013). Explanation in good and bad experiential cases. In F. Macpherson and D. Platchias (Eds.), *Hallucination: Philosophy and Psychology*, pp. 221–54. Cambridge: The MIT Press.
- Klein, S. B. (2015). What memory is. Wiley Interdisciplinary Reviews: Cognitive Science 6(1), 1–38.
- Knight, G. (2014). Disjunctivism unmotivated. Phenomenology and the Cognitive Sciences 13(2), 355–372.
- Laird, J. (1920). A Study in Realism. Cambridge: Cambridge University Press.
- Landesman, C. (1962). Philosophical problems of memory. The Journal of Philosophy 59(3), 57–65.
- Locke, J. (1975). An Essay Concerning Human Understanding. In P. Nidditch (Ed.), *The Clarendon Edition of the Works of John Locke: An Essay Concerning Human Understanding*. Oxford University Press.
- Logue, H. (2009). Perceptual Experience: Relations and Representations. Ph. D. thesis, MIT.
- Logue, H. (2012). Why naïve realism? Proceedings of the Aristotelian Society 112, 211–237.
- Logue, H. (2013). Good news for the disjunctivist about (one of) the bad cases. *Philosophy and Phenomenological Research* 86, 105–133.
- Logue, H. (2014). Experiential content and naive realism: A reconciliation. In B. Brogaard (Ed.), *Does Perception Have Content?*, pp. 220–41. Oxford University Press.
- Martin, C. B. and M. Deutscher (1966). Remembering. *Philosophical Review* 75(2), 161–96.
- Martin, M. (2015). Old Acquaintance: Russell, Memory and Problems with Acquaintance. *Analytic Philosophy* 56(1), 1–44.
- Martin, M. G. F. (2002a). Particular thoughts and singular thought. In A. O'Hear (Ed.), *Logic, Thought, and Language*, Volume 51 of *Royal Institute of Philosophy Supplements*, pp. 173–214. Cambridge: Cambridge University Press.
- Martin, M. G. F. (2002b). The transparency of experience. *Mind and Language* 4, 376–425.
- Martin, M. G. F. (2004). The limits of self-awareness. *Philosophical Studies* 120(1-3), 37–89.

- Martin, M. G. F. (2006). On being alienated. In T. Szabo Gendler and J. Hawthorne (Eds.), *Perceptual Experience*, pp. 354–410. Oxford University Press.
- Masrour, F. (2020). On the possibility of hallucinations. $Mind\ 129(515),\ 737-768.$
- Matthen, M. (2005). Seeing, Doing, and Knowing: A Philosophical Theory of Sense Perception. Oxford: Oxford University Press.
- Matthen, M. (2010a). Is memory preservation? *Philosophical Studies* 148, 3–14.
- Matthen, M. (2010b). Two visual systems and the feeling of presence. In N. Gangopadhyay, M. Madary, and F. Spicer (Eds.), *Perception, Action, and Consciousness: Sensorimotor Dynamics and Two Visual Systems*, pp. 107–124. Oxford: Oxford University Press.
- McCarroll, C. (2018). Remembering from the outside: Personal memory and the perspectival mind. Oxford University Press.
- McDowell, J. (1986). Singular thought and the extent of inner space. In J. McDowell and P. Pettit (Eds.), *Subject, Thought, and Context*, pp. 137–168. Oxford: Oxford University Press.
- Mehta, N. (2014). The limited role of particulars in phenomenal experience. *The Journal of Philosophy* 111(6), 311–331.
- Michaelian, K. (2011). Generative memory. *Philosophical Psychology* 24 (3), 323–342.
- Michaelian, K. (2016a). Confabulating, misremembering, relearning: The simulation theory of memory and unsuccessful remembering. Frontiers in Psychology 7, 1857.
- Michaelian, K. (2016b). Mental Time Travel: Episodic Memory and Our Knowledge of the Personal Past. MIT Press.
- Michaelian, K. and A. Sant'Anna (2021). Memory without content? Radical enactivism and (post) causal theories of memory. *Synthese* 198, 307–335.
- Moore, G. E. (1903). The refutation of idealism. *Mind* 12(48), 433–453.
- Moore, G. E. (1918–1919). The presidential address: Some judgments of perception. *Proceedings of the Aristotelian Society* 19, 1–29.
- Moran, A. (2019). Naïve realism, seeing stars, and perceiving the past. *Pacific Philosophical Quarterly* 100(1), 202–232.
- Nagel, T. (1974). What is it like to be a bat? *Philosophical Review 83*, 435–450.
- Nanay, B. (2014). Empirical problems with anti-representationalism. In B. Brogaard (Ed.), *Does Perception have Content?*, pp. 39–50. Oxford

- University Press.
- Noë, A. (2004). Action in Perception. Cambridge: The MIT Press.
- Noë, A. and E. Thompson (2004). Are there neural correlates of consciousness? *Journal of Consciousness Studies* 11, 3–28.
- Pautz, A. (2018). Naïve realism and the science of consciousness. Unpublished Manuscript accessible on PhilArchive: https://philarchive.org/rec/PAUNRA-2.
- Perrin, D., K. Michaelian, and A. Sant'Anna (2020). The phenomenology of remembering is an epistemic feeling. *Frontiers in Psychology* 11(1531), 1–14.
- Phillips, I. (2016). Naïve realism and the science of (some) illusions. *Philosophical Topics* 44(2), 353–380.
- Price, H. H. (1932). Perception. North Yorkshire: Methuen.
- Price, H. H., J. Laird, and J. N. Wright (1936). Symposium: Memory-knowledge. Aristotelian Society Supplementary Volume 15(1), 16–60.
- Raleigh, T. (2014). A new approach to 'perfect' hallucinations. *Journal of Consciousness Studies* 21 (11–12), 81–109.
- Reid, T. (1764). An Inquiry into the Human Mind on the Principles of Common Sense. London: Cadell and Longman.
- Robins, S. K. (2016). Representing the past: Memory traces and the causal theory of memory. *Philosophical Studies* 173(11), 2993–3013.
- Robins, S. K. (2017). Memory traces. In S. Bernecker and K. Michaelian (Eds.), *The Routledge Handbook of Philosophy of Memory*, pp. 76–87. Routledge.
- Robins, S. K. (2020). Mnemonic confabulation. Topoi 39(1), 121–132.
- Robinson, H. (1994). Perception. London: Routledge.
- Russell, B. (1921). The Analysis of Mind. London: George Allen and Unwin.
- Russell, B. (1997/1912). The Problems of Philosophy. Oxford: Oxford University Press.
- Sant'Anna, A. and K. Michaelian (2019). Thinking about events: A pragmatist account of the objects of episodic hypothetical thought. *Review of Philosophy and Psychology* 10, 187–217.
- Sant'Anna, A. (2020). Unsuccessful remembering: A challenge for the relational view of memory. *Erkenntnis*, 1–24. Online first.
- Schacter, D. L., D. R. Addis, and R. L. Buckner (2007). Remembering the past to imagine the future: the prospective brain. *Nature Reviews Neuroscience* 8(9), 657–661.
- Schacter, D. L., D. R. Addis, D. Hassabis, V. C. Martin, R. N. Spreng, and

- K. K. Szpunar (2012). The future of memory: remembering, imagining, and the brain. *Neuron* 76(4), 677-694.
- Schellenberg, S. (2010). The particularity and phenomenology of perceptual experience. *Philosophical Studies* 149, 19–48.
- Schellenberg, S. (2011). Perceptual content defended. Noûs 45(4), 714–750.
- Searle, J. R. (1983). *Intentionality: An essay in the philosophy of mind*. Cambridge university press.
- Siegel, S. (2010). The Contents of Visual Experience. Oxford: Oxford University Press.
- Siewert, C. (1998). The Significance of Consciousness. Princeton: Princeton University Press.
- Smith, A. D. (2002). The Problem of Perception (1st ed.). Harvard University Press.
- Snowdon, P. F. (1980). Perception, vision, and causation. *Proceedings of the Aristotelian Society* 81, 175–92.
- Snowdon, P. F. (1990). The objects of perceptual experience. *Proceedings of the Aristotelian Society* 64, 121–50.
- Suddendorf, T. and M. C. Corballis (2007). The evolution of foresight: What is mental time travel, and is it unique to humans? *Behavioral and Brain Sciences* 30, 299–351.
- Sutton, J. (1998). Philosophy and Memory Traces: Descartes to Connectionism. Cambridge University Press.
- Taylor, D. (1938). Realism and memory. The Australasian Journal of Psychology and Philosophy 16(3), 218–232.
- Taylor, R. (1956). The "justification" of memories and the analogy of vision. The Philosophical Review 65(2), 192-205.
- Teroni, F. (2017). The phenomenology of memory. In S. Bernecker and K. Michaelian (Eds.), *The Oxford Handbook of Philosophy of Memory*, pp. 21–33. Oxford: Oxford University Press.
- Travis, C. S. (2004). The silence of the senses. *Mind* 113(449), 57–94.
- Travis, C. S. (2013). Susanna siegel, the contents of visual experience. *Philosophical Studies* 163, 837–846.
- Tulving, E. (1985). Memory and consciousness. Canadian Psychology/Psychologie Canadienne 26(1), 1–12.
- Tulving, E. (2002). Episodic memory: From mind to brain. *Annual Review of Psychology* 53, 1–25.
- Valberg, J. J. (1992). The Puzzle of Experience. Oxford: Oxford University Press.

Werning, M. (2020). Predicting the past from minimal traces: Episodic memory and its distinction from imagination and preservation. *Review of Philosophy and Psychology* 11(2), 301–333.