The hybrid contents of memory

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Forthcoming in Synthese

Abstract

This paper proposes a novel account of the contents of memory. By drawing on insights from the philosophy of perception, I propose a hybrid account of the contents of memory designed to preserve important aspects of representationalist and relationalist views. The hybrid view I propose also contributes to two ongoing debates in philosophy of memory. First, I argue that, in opposition to eternalist views, the hybrid view offers a less metaphysically-charged solution to the co-temporality problem. Second, I show how the hybrid view conceives of the relationship between episodic memory and other forms of episodic thinking. I conclude by considering some disanalogies between perception and memory and by replying to objections. I argue that, despite there being important differences between memory and perception, those differences do not harm my project.

1 Introduction

In this paper, I propose a hybrid view of memory that reconciles insights from representationalist and relationalist views about the objects of memory. Section 2 introduces the problem of the objects of memory and analyzes the representationalist and the relationalist answers to it. Section 3 develops a hybrid view of memory, called hybridism, by relying on insights drawn from the philosophy of perception. In particular, I introduce Susanna Schellenberg's recent attempts to formulate a hybrid view of perception and extend it to memory. I argue that, by adopting a hybrid view of memory inspired by hybrid views of perception, we can consistently preserve good elements from representationalism and relationalism about memory without inheriting their problematic aspects. Section 4 expands hybridism and applies it to two ongoing disputes in philosophy of memory. These are the co-temporality problem and the relationship between episodic memory and other forms of episodic thinking. In bringing hybridism to these debates, I expect to show that not only it sheds light on an old dispute in philosophy of memory, but also offers prospects for advancing ongoing discussions in the area. Finally, Section 5 considers some objections to my project. In particular, I consider some disanalogies between perception and memory that could motivate such objections and a separate objection which states that hybridism fails to avoid disjunctivism. With respect to the first, I argue that although there are, indeed, some important disanalogies between memory and perception, those do not harm my proposal. In relation to the second, I argue that taking hybridism to be committed to disjunctivism overlooks two important aspects of the view developed here.

2 The objects of episodic memory

When we remember events from our personal past, our memories seem to refer, or to be about, things that long ceased to exist. For example, when I remember my tenth birthday party, it seems to me that I stand in a relation to an event, my tenth birthday party, that occurred in the past, but that no longer exists. Recently, the psychologist Endel Tulving (1972; 1985a) called *episodic memories* the memories that refer to or are about events. Despite there being different kinds of memories (see, e.g., Squire 2009; Michaelian and Sutton 2017; Werning and Cheng 2017), I will be concerned exclusively with episodic memories, or what philosophers sometimes call "recollection".

Although I said that episodic memories are memories about events, this characterization can be misleading. Because other kinds of memory, such as semantic memory, can also be about events — e.g., remembering that Uruguay won the 1930 Football World Cup — a more precise characterization would be that episodic memories are about events that subjects experienced previously in their lives. So, remembering my tenth birthday party is an episodic memory because I was perceptually related to that event previously in my life. In contrast, remembering that Uruguay won the 1930 Football World Cup is not an episodic memory, for despite being about an event, I did not experience it.

One important question relating to episodic memories refers to the nature of their objects. Traditionally, two opposing accounts have been proposed. Representational theories, or simply representationalism, hold that when I remember a past event, I am directly related to a mental representation of the event, but only indirectly related to the event itself (Locke 1975; Hume 2011; Russell 2005). In contrast, relational theories, or simply relationalism, claim that, when I remember a past event, I stand in a direct relation to the event itself (Reid 2000; Russell 2001; Laird 2014; Debus 2008). In opposition to representationalism, relationalism denies the presence of any intermediaries between memories and the events remembered. Despite its historical prominence and importance, the question about the objects of memory has been largely neglected in the contemporary debate. It is not entirely clear why this is the case, though. As I will argue below, how one conceives of the objects of memory will change how one understands different aspects of the metaphysics and the epistemology of episodic memory. In this context, despite my main goal here being to provide a

¹In fact, even this characterization is problematic, as I can semantically remember events that I experienced previously in my life. For my purposes, however, these problems can be put aside.

framework in which representationalism and relationalism can be reconciled, I also expect to make clear the importance that this question has for contemporary philosophers of memory.

The opposition between representationalism and relationalism can be better visualized by looking at how they answer three different questions about memory. The first question, which I will call the *problem of error*, is how memory errors are possible. The second question, which I will call the *problem of indistinguishability*, is how and why successful and unsuccessful occurrences of remembering can be indistinguishable from the point of view subjects. Finally, the third question, which I will call *problem of epistemic particularity*, is the question of how memory grounds our knowledge of particular past events.

Representationalism offers simple and intuitive answers to the two first questions. Because memory is said to represent past events, error can be explained by appealing to the notion of content. Content, as Rowlands (2017) points out, is normative, which makes it possible to assess memory representations for accuracy. In relation to indistinguishability, representationalism explains it by saying that successful and unsuccessful occurrences of remembering share a "common factor", i.e., they all have representations as their objects. So, because their objects are of the same kind, successful and unsuccessful remembering can be phenomenologically indistinguishable. However, representationalism faces trouble to explain the problem of epistemic particularity. When I remember a past event, such as my tenth birthday party, it seems to me that I remember an event that actually happened (see Debus 2008, 2014; Perrin 2016). But, since qualitatively identical representations can be the objects of both successful and unsuccessful remembering, or even of other forms of episodic thinking (see De Brigard 2014a; Michaelian 2016b), the relation that the objects of successful remembering establish to the actual past events seems to be entirely contingent, which makes it hard to see how those mental states can ground our knowledge of the past.

In contrast to representationalism, relationalism gives the question of epistemic particularity a central place. By denying that there are intermediaries between remembering and the past events, subjects are now placed in direct contact with those events. Debus (2008), for example, argues that, due to the presence of an "experiential relation", where such relation is understood as supervening on causal, spatial, and temporal relations holding between subjects and the relevant events, remembering is capable of putting us in direct contact with the past events themselves. However, the attempt to explain epistemic particularity comes at a price, which is that of providing a counterintuitive and excessively complex account of error and indistinguishability. Because the objects of remembering are the past events, and because those events do not exist in cases of unsuccessful remembering, relationalism has to provide an account of the nature of the objects of unsuccessful remembering. While it is relatively easy to see how there can be a direct relation between a mental state and an event that exists or that existed at some point, it is unclear whether the same can be said of non-existing objects or events. Although some philosophers, most notoriously Brentano (2014) and Meinong (1960),² believe that such relation is possible, contemporary relationalists, such as Debus (2008), have favored a different strategy. This strategy consists in adopting a disjunctivist account of memory along the lines of disjunctivist accounts of perception (see Martin 2004; Fish 2009). The main claim of disjunctivism is that successful and unsuccessful remembering are only similar with respect to their phenomenology. Based on this, it is further claimed that phenomenological similarity is not enough to group those mental states under the same metaphysical kind.

Disjunctivism becomes appealing to relationalists because it helps them to explain the problems of error and indistinguishability. With respect to error, unsuccessful occurrences of remembering can be simply regarded as being different in kind from successful ones. This allows relationalists to consistently hold that, while successful remembering is essentially relational, unsuccessful remembering is not. As to the problem of indistinguishability, relationalists can simply deny that indistinguishability alone is sufficient to group mental states under the same kind (see Debus 2008, 414–5; Martin 2004, 37).

Although disjunctivism offers an alternative to relationalists in accounting for error and indistinguishability, it faces a number of problems that make it unappealing. Besides offering a counterintuitive account by underplaying the importance of phenomenology to understand the nature of memory, disjunctivism is also problematic when considered in relation to the neurocognitive mechanisms underlying episodic memory. Empirical work suggests that episodic memory is an instance of a more general capacity to imagine events (Suddendorf and Corballis 1997, 2007; Schacter et al. 2012; Michaelian 2016b), or more generally to think counterfactually (De Brigard 2014a), which suggests that memory is, indeed, similar in important respects to those mental states. Moreover, disjunctivism leads to an extreme and unmotivated view of memory, in which successful occurrences of remembering become rare occurrences, for given the constructive character of episodic memory (see Bartlett 1995; Michaelian 2011), most of the memories occurring in ecological contexts should allow for some degree of inaccuracy (Conway and Loveday 2015; see also De Brigard 2014a).

In summary, a large part of the disagreement between representationalism and relationalism is due to different conceptions of what elements should be central in an account of memory. On the one hand, representationalism provides a simple and unified account of error and indistinguishability, but faces problems to explain epistemic particularity. On the other hand, relationalism provides an account of epistemic particularity, but commits to an implausible view, i.e., disjunctivism, to deal with error and indistinguishability. Despite the apparent incompatibility between them, the question of whether a reconciliatory view is possible has received little attention in the philosophy of memory. As Michaelian and Sutton (2017) have noted in a recent survey of the area, "the prospects for hybrid views of memory remain unexplored". In contrast, hybrid views incorporating elements from relationalism and representationalism are becoming popular in the philosophy of perception (see Schellenberg 2010, 2014; Siegel

²Although see Crane (2001; 2013) for a contemporary discussion on the topic.

2010; McDowell 2013; Logue 2014; Sant'Anna 2017) and, I shall argue, they provide insightful resources to think about the possibility of hybrid views of memory. In the remaining sections, I will focus on one prominent hybrid view of perception developed by Susanna Schellenberg (2010; 2011; 2016) and I will propose a similar hybrid view of memory based on it.

3 Towards a hybrid view of memory

In recent works, Schellenberg (2010; 2016) has suggested that the disagreement between representationalism and relationalism about perception is due to, at least in part, their focus on different elements of perception. According to her, representationalists are more concerned with explaining the *phenomenological* particularity of perception, where "a mental state manifests phenomenological particularity if and only if it seems to the subject that there is a particular present", that is, "[...] if and only if the particularity is in the scope of how things seem to the subject" (2016, 28), while relationalists give more emphasis to its relational particularity, where "a mental state instantiates relational particularity if and only if the mental state is constituted by the particular perceived" (2016, 28).

The focus on different aspects of perception, Schellenberg adds, has motivated different strategies to individuate perceptual states. Representationalists, according to her, adopt the *mental state view*, where "experiences are individuated solely by the phenomenology that the subject experiences" (2010, 20). Alternatively, relationalists rely on the *environment-encompassing view*, where "experiences are individuated by the phenomenology and the material, mind-independent objects, properties, scenes, or events to which the subject is perceptually related" (2010, 21).

I think that drawing similar distinctions can be helpful to understand the disagreements between representationalism and relationalism about memory. To avoid confusion, let me start by defining the memory equivalents of those notions. I will say that a memorial state instantiates phenomenological particularity iff it seems to the subject that his mental state is about a past event that was previously experienced. Thus, remembering, misremembering, and confabulating alike can instantiate phenomenological particularity. Similarly, I will say that a memorial state instantiates relational particularity iff the memory is constituted by an event that took place in the subject's personal past, which refers to the collection of events that the subject experienced in his life prior to the memory. Thus, successful occurrences of remembering instantiate relational particularity, but unsuccessful occurrences do not, for only the former are constituted by events of the subject's personal past. Moreover, similar to the perception case, the attempts to explain phenomenological particularity and relational particularity motivate different strategies to individuate memorial states. The first strategy, adopted by representationalists, is the mental state view described by Schellenberg (2010), according to which memories are individuated by their phenomenological character. The second strategy is what I will refer to as the *past-encompassing view*, according to which memories are individuated by their phenomenology and the events of the subject's personal past.

One clarification here refers to what I mean when I say that a memory is constituted by an event that took place in the past. I am using the term 'constitution' in a very general way, such that there are multiple ways in which a past event may constitute a present memory. One such way would be by means of a memory trace (Martin and Deutscher 1966; De Brigard 2014b; Robins 2016a). On this view, a past event is a constitutive part of a present memory because the latter preserves a causal connection to the former. The notion of constitution used in this case, however, is not that of material constitution. As I will discuss in more detail later (see section 4.1), an event can constitute the content of memory even when that event has ceased to exist. Another way would be to say, along with eternalists (e.g., Bernecker 2008), that the event itself is part of the memory because it never ceases to exist. In section 4.1, I suggest that favoring the first alternative can alleviate some metaphysical worries about the objects of memory, but for the purposes of my discussion of the reconciliation of representationalism and relationalism, I do not need to commit to any of these alternatives.

Let me now discuss how the distinctions introduced above relate to the discussion in section 2. Consider representationalism first. The claim that successful and unsuccessful occurrences of remembering share a "common factor" is supported by the mental state view because it seems to subjects that their memories relate to particular events, which explains why memory instantiates phenomenological particularity. On the representationalist account, successful and unsuccessful remembering both have representations as objects, thus it is not surprising that their phenomenologies might be indistinguishable. However, representationalism fails to explain relational particularity. Because representations are decouplable (see Rowlands 2017), they can occur whether or not the things that are represented exist. So, the occurrence of a past event does not seem necessary for the occurrence of memory. This makes it hard to see how, on the representationalist view, memory can ground our knowledge of the past.

Consider now relationalism. By adopting the past-encompassing view, relationalists can explain epistemic particularity. Since successful remembering requires being directly related to past events themselves, it is easier to see how memory grounds our knowledge of the past. Moreover, because subjects are directly related to events, relationalism also explains why successful remembering has phenomenological particularity. However, because unsuccessful occurrences of remembering do not have objects, the past-encompassing view faces trouble to explain how they instantiate phenomenological particularity. That is why disjunctivism becomes appealing: because phenomenological particularity is arguably the only thing shared between successful and unsuccessful remembering, and because successful remembering is constituted by events, relationalists can postulate a fundamental separation between them based on the past-encompassing view. So, while it allows for a simple account of epistemic particularity, the past-encompassing view makes things complicated for rela-

tionalists in relation to error and indistinguishability.

The distinctions introduced here help us not only to understand the opposition between representationalism and relationalism, but also provide an initial framework to conceive of a possible reconciliation. The suggestion I want to put forward is that a hybrid or reconciliatory view needs to explain both the phenomenological particularity and the relational particularity of memory. However, this raises an important question, which is how this can be done without resulting in any inconsistencies. In the case of perception, Schellenberg argues that we need to preserve the idea that perception has content and adopt the environment-encompassing view as a general strategy to individuate perceptual states. I will follow her suggestion here and propose that, in the case of memory, preserving the idea that memory has content and adopting the past-encompassing view provides the path to reconcile representationalism and relationalism. But, before we move on, a few words on why it is important to preserve those things. On the one hand, the idea that memory has content is important because it provides a way to distinguish between successful and unsuccessful remembering by allowing us to assess those mental states for accuracy. In doing this, we can explain, moreover, the nature of the "common factor" that those mental states share — i.e., both have contents — thus providing an account of indistinguishability. On the other hand, preserving the pastencompassing view is important because it allows us to distinguish successful remembering from unsuccessful remembering in terms of its relationship to past events. That is, in the same way that, according to Schellenberg's environmentencompassing view, the particulars that are perceived constitute the contents of perception, the past-encompassing view requires that the particulars that are remembered — i.e., events, objects, etc. — constitute the contents of memory.³ This allows us to build into our theory the relational aspect that explains how memory grounds our knowledge of the past. More importantly, because we can now say that successful remembering and unsuccessful remembering have a common factor, the relational aspect introduced by the past-encompassing view need not lead us to disjunctivism. The differences between those mental states can be properly accounted for without positing a fundamental separation between them.

The claims made above will be developed in more detail in the next sections. However, before we enter this discussion, I shall mention one important assumption that I will be making. In order to reconcile content and the past-encompassing view, I will be assuming an unconventional way to understand the relationship between the content and the phenomenology of mental states, which I refer to as *separatism*, and then explore how it allows us to coherently incorporate content and the past-encompassing view into a unified view. Separatism opposes *intentionalism*, which is the view that the phenomenology of our mental states can be adequately explained by their representational or intentional content (see, e.g., Dretske 1997; Tye 2002; Byrne 2001, 2009). So,

³See section 4.1 for a more detailed discussion of what it means to say that events constitute the contents of memory.

as Fernández (2017) points out, separatism says that "the phenomenal and intentional [or representational] features of mental states are independent from each other" (97). Therefore, my claim is that if we take for granted that a form of separatism is true, we can have a proper hybrid view of memory. I do not expect the reader to get on board with separatism at this point; in fact, a proper argument for a hybrid view of memory will require a proper argument for separatism. However, since my goal here is to explore whether a hybrid view of memory is possible, I shall set this question aside for the moment.

Another important thing to note here is that the hybrid view of perception offered by Schellenberg is not uncontroversial. One issue is that it leans too much on representationalism, which will make the view unappealing for those inclined to relationalism (see Sant'Anna 2017 for discussion). In particular, one central point of disagreement between representationalists and relationalists is about how to account for the phenomenology of perception. Relationalists, such as Martin (2004) and Fish (2009), tend to explain it in terms of particulars being constitutive parts of experiences. However, for the hybrid view, the phenomenology is explained by the modes of presentation, which are elements composing the representational content of experience (see 3.1). Another complaint, but now coming from representationalists, is that hybrid contents, or relational contents, build non-conceptual elements into the content of perception. This is problematic because it undermines an important additional motivation for representationalism, which is that it provides a neat account of how the content of perception can inform the content of other mental states, especially beliefs (see McDowell 1996).

Thus, it is not entirely clear whether hybridism has been successful in fully reconciling representationalism and relationalism. Whether there can be such a full reconciliaton or what elements from each view should figure into a reconciliatory view are still open questions in the perception literature (see Locatelli and Wilson 2017, 209). The same challenges, I think, should be expected to arise in relation to memory. However, these challenges do not diminish the importance of developing hybrid views. Even if hybrid views fail to satisfy the demands of "pure" representationalists and "pure" relationalists, they still offer a promising alternative for those who are not convinced by either of the "pure" theories. Moreover, in historical terms, this is an important development, as hybrid views show that two apparently incompatible views are not incompatible after all.

3.1 Hybrid contents

Separatism allows for the formulation of a hybrid notion of content. *Hybrid contents*, as I will call them, refer to the satisfaction conditions of memory that are partly determined by its phenomenology and its relation to past events. Hybrid contents are, therefore, an alternative notion of content designed to preserve both the phenomenological particularity and the relational particularity of memory. I will now explore this notion in detail.

In line with my previous discussion, I will rely on Schellenberg's account of

content here. In a recent paper, she has characterized hybrid contents as twoplace relations holding between a mode of presentation of an object and a mode of presentation of a property (Schellenberg 2010). A mode of presentation here refers to how an object or a property appears or becomes cognitively available to the subject. So, on the classic example discussed by Frege (1980), the same object ("Venus") can have different modes of presentation ("morning star" and "evening star") in different thoughts. Similarly, the idea here is that, in the case of perception, objects and properties can be presented in different ways in perceptual experiences. In terms of their ontological status, modes of presentation can be viewed as parts of the representational content of mental states responsible for determining their phenomenology. Because they establish what it is like for subjects to undergo different mental states, it is possible for those mental states to refer to the same thing while not necessarily sharing the same phenomenology. With this in mind, Schellenberg suggests that the following characterization of the contents of perception can be given, where MOP refers to modes of presentation, o is an object, and p is a property:

Perception =
$$[MOP_1(o);MOP_2(p)]$$

I will adopt the same characterization to define the hybrid contents of memory, but instead of objects and properties of objects, I will replace these with events and properties of events. So, the hybrid contents of memory are characterized by the following, where MOP refers to modes of presentation, e is an event, and p is a property of e:

$$Memory = [MOP_1(e);MOP_2(p)]$$

Let me clarify what these terms mean. I will not commit to any particular account of events here; the term is used straightforwardly to refer to situations such as visiting the Cologne cathedral or drinking beer at the pub. Properties of events are, accordingly, the particular constituents of those events. For example, when I remember visiting the Cologne cathedral on a cloudy day, being a "cloudy day" is a property of that event. Similarly, remembering "having pilsner" is a property of the event "drinking beer at the pub". The semi-colon separating the two modes of presentation indicates that properties are presented as being instantiated by events despite the fact that, in the analysis of the content, they are related to different modes of presentation.

Another thing that needs to be clarified is what it means to say, in the case of memory, that modes of presentation present events and properties as being a certain way to subjects. Consider the case of visiting the Cologne cathedral again. When I remember this event, the mode of presentation presents it as being located in the past and as having occurred. In other words, modes of presentation of events are responsible for presenting events as being in a certain temporal location and as being actual, in the sense that they happened before, or

 $^{^4\}mathrm{I}$ should note that the term "hybrid contents" is my own terminology. Despite not using the same term, I ascribe the core idea behind this notion to Schellenberg's (2010; 2011; 2016) account of perceptual content.

as being possible.⁵ Contrast this with imagining visiting the Cologne cathedral. On such cases, the mode of presentation of the event places it in the future and identifies it as something that can possibly happen. Similarly, the modes of presentation of properties are responsible for presenting properties as being instantiated or not by a particular event.⁶ For example, when I remember visiting the Cologne cathedral on a cloudy day, that property is presented to me as being instantiated by the event in question. Likewise, when I think about how it would be to visit the cathedral on a sunny day, the mode of presentation presents the property of the event as being instantiated by the event too. The important thing to note here is that modes of presentation are the parts of the content responsible for the phenomenology of memory, so it is possible for modes of presentation to present events as being the case and properties as being instantiated without implying that memory refers to events that actually happened or to actual instantiated properties. Reference, as I will argue below, is established by another part of the content of memory, which does not necessarily influence what it is like for subjects to undergo memorial states.

Another important thing to note is that we do not need to restrict ourselves to only one of the properties of events. It is possible, in principle, to have a memory whose content has two or more modes of presentation referring to different properties of an event. For example, I can remember visiting the Cologne cathedral on a cloudy and hot day. In this case, the content of my memory has a mode of presentation relating to an event and two different modes of presentation relating to two different properties:

$$Memory = [MOP_1(e);MOP_2(p_1);MOP_3(p_2)]$$

It might be argued that this account of the content of memory does not provide a clear way to distinguish between events and properties. Suppose that I remember visiting a building identical to the Cologne cathedral on a cloudy day, but for some reason I remember this event as taking place in Hamburg. There are two possible ways to characterize the constituents of the content of this memory. We can, on the one hand, say that it is composed by a mode of presentation of the event "Visiting a building identical to the Cologne cathedral in Hamburg" and a mode of presentation of the property "cloudy day", or we can, on the other hand, say that it is composed by a mode of presentation of the event "Visiting a building identical to the Cologne cathedral" and two modes of

⁵See section 4.2 for a more detailed account. I should note here that the temporal location specified by the modes of presentation is coarse-grained in the sense that it does not specify a particular day or time, but only whether the event is located in the past or in the future.

⁶While I distinguish between modes of presentation of instantiated and non-instantiated properties here, most occurrences of remembering and also of episodic thinking discussed in section 4.2 will contain only modes of presentation of instantiated properties. This is because, in most occurrences of those mental states, the properties are presented to subjects as being instantiated, even though they might not be in reality. Thus, while it might be possible for a subject to remember non-instantiated properties of events, such as remembering a cathedral and a sunny day, but not ascribing these to any particular event, I will focus, from now on, exclusively on cases where the properties are instantiated.

presentation of the properties "in Hamburg" and "cloudy day". If this is right, however, we will have different assessments of the accuracy of the same memory. In the first case, the memory might be said to be confabulatory because the event clearly did not occur. In the second case, it might be argued that the memory is an occurrence of misremembering because the event in question occurred, but one of the properties represented failed to be instantiated.⁷

As I mentioned initially, I am not committing to any particular metaphysical view of events, so there is no principled way to say that one of the characterizations above is better. However, we can choose between them in the context of our analysis of the content of remembering. In other words, whether a property will be characterized alongside an event, as in the first case, or whether it will be assigned a separate mode of presentation, as in the second case, depends on the questions that we are trying to answer with our analysis of the content of remembering. If the relevant question is "Does the subject remember the event of visiting a building identical to the Cologne cathedral in Hamburg?", then his mental state is clearly confabulatory. But, if the question is "Does the subject remember the event of visiting a building identical to the Cologne cathedral?", then it would make more sense to say that he does remember such event, although he gets some of the details wrong.

While some might find this pragmatic answer unconvincing, it is does not look completely absurd when we consider the fact that a large fraction of the memories that we usually consider "true" involve inaccurate elements. That is, because, as De Brigard (2014a) notes, "remembering is a particular operation of a cognitive system that permits the flexible recombination of different components of encoded traces into representations of possible past events [...] in the service of constructing mental simulations of possible future events" (158), it is not uncommon for the so-called "true" memories to have some inaccurate elements. Thus, if we want an account of the content of memory that avoids the conclusion that most of our memories are not true, a pragmatic strategy that focus on some but not all elements of the content according to the purposes of the analysis starts to make more sense.

Now, given this characterization of hybrid contents, it is possible to address the problems raised in section 2 in a reconciliatory framework. For the sake of simplicity, I will focus on cases that involve only one event and one property.

3.2 Error revisited

Let us start with the problem of error, which refers to the possibility of memory errors. For hybridism, because all occurrences of remembering have content, it is possible to assess them for accuracy. To clarify, consider successful occurrences of remembering first. Hybridism says that the content of remembering consists in a two-place relation between a mode of presentation of a particular event e_1 , which took place in the past, and a mode of presentation of a property p_1 , which happens to be a property of e_1 :

⁷For more details on confabulation and misremembering, see section 3.2.

Remembering = $[MOP_1(e_1);MOP_2(p_1)]$

This characterization explains why remembering instantiates phenomenological particularity. The modes of presentation of events and properties, which are responsible for making them cognitively available to the subject, make it seem to the subject that he is remembering a particular event with a certain property. Moreover, because both modes of presentation are successful in establishing reference, the relevant event e_1 and the property p_1 instantiated by it become constitutive parts of remembering. This explains how remembering establishes a relation to past events, and consequently, how it instantiates relational particularity.

Consider now unsuccessful occurrences of remembering, which can be divided into two different kinds. The first kind is *misremembering* (see Robins 2016b; Michaelian 2016a), which refers the cases where we mistakenly remember some feature of a past event. For example, when I remember having chocolate cake at my tenth birthday party, I mistakenly remember a feature — that I had chocolate cake instead of strawberry cake — of an event that happened, that is, my tenth birthday party. The second kind is *confabulating*, which refers to cases where we remember events that did not happen, such as remembering that I went to the beach on my tenth birthday.

Hybridism says that the content of misremembering consists in a two-place relation between a mode of presentation of a particular event e_1 , which took place in the past, and a mode of presentation of a property.

$$Misremembering = [MOP_1(e_1);MOP_2(...)]$$

However, because the property presented was not instantiated by e₁, its mode of presentation fails to establish reference. In Schellenberg's (2010) account, when the modes of presentation fail to refer, the content becomes "gappy". Since, in the case of misremembering, only the second mode of presentation fails to refer, I shall say that its content is partially gappy. To further clarify this point, I should say a little bit more about what it means for a content to be "gappy". Although the most natural interpretation is to understand it as meaning that the content is somehow empty, in the sense that subjects will experience their memories as having "missing" parts, that is not what I have in mind here. Gappinness is a theoretical notion here and its meaning is simply that the mode of presentation failed to establish reference. As I discuss below in 3.3, because of separatism, the gappinness or non-gappinness of modes of presentation do not change the phenomenology of memory. For this reason, I should emphasize, again, that the memories whose contents are gappy will not be presented to subjects as being empty or as missing some part.

Now, turning back to the characterization of misremembering given above, note that it explains why misremembering instantiates phenomenological particularity. Despite one of the modes of presentation being gappy, it still seems to the subject that he is remembering an event with a property. Because of separatism, the presence or the absence of reference by the modes of presentation only needs to make a difference to content, but not to phenomenology. In

contrast to remembering, however, misremembering only establishes *partial* relational particularity because only one of its modes of presentation is successful in establishing reference.

Finally, consider the case of confabulating. The content of confabulating consists in a two-place relation between a mode of presentation of a particular event and a mode of presentation of a property, but both fail to establish reference.

Confabulating =
$$[MOP_1(_);MOP_2(_)]$$

That is, because the event that is made cognitively available to the subject did not happen, the first mode of presentation fails to refer to something. Consequently, the second mode of presentation also fails to refer, for there are no properties instantiated by events that did not happen. In contrast to remembering and misremembering, then, the content of confabulating is *fully* gappy.

Analogously to remembering and misremembering, this characterization of the content of confabulating explains why it instantiates phenomenological particularity. The gappiness of the modes of presentation, as I noted above, makes a difference to the representational content of the memory, but not to its phenomenology. However, unlike remembering and misremembering, because neither the mode of presentation of the event nor the mode of presentation of the property are successful in establishing reference, confabulating does not instantiate relational particularity.

One question that might be asked here is whether it is possible to have a memory whose content contains a gappy mode of presentation of an event and a non-gappy mode of presentation of a property.⁸ In the terminology used here, the content would look like the following

$$\mathbf{M} = [\text{MOP}_1(\text{--}); \text{MOP}_2(p)]$$

One example would be remembering visiting the Coliseum on a cloudy day. Since I have never visited the Coliseum, the mode of presentation of the event would be gappy, but the mode of presentation of the property would not, for the property of being a cloudy day was instantiated by other events that I can remember — e.g., my visit to the Cologne cathedral. However, on the framework developed here, it is not possible to have a memory with such content. Whether or not a property is instantiated by an event is an objective fact about the event, so it cannot be the case that the property "cloudy day" was instantiated by the event "My visit to the Coliseum" because this event did not happen. Despite the fact that "cloudy day" is a property that was instantiated by another event that I can remember, the sense in which instantiation is used here does not imply that the property in the content above was instantiated by the relevant event. Because of this, the memory in question would have a fully gappy content and, therefore, it would be a confabulation.

⁸I'm grateful to Kirk Michaelian for pressing me on this point.

To conclude the discussion of memory errors, I should point out that I have been concerned with only some forms of memory errors, namely, misremembering and confabulating. There are, however, other forms of errors that are of concern to philosophers of memory. In a recent discussion about how to provide a taxonomy of memory errors, cases of relearning and veridical confabulation have, in addition to misremembering and confabulating, played an important role in shaping the current theories (see Robins 2016b; Michaelian 2016a; Bernecker 2017).

Cases of relearning refer to situations where we experience an event, forget about it, and then re-acquire information about the event from sources other than our own episodic memories. For example, I experienced my first day at school many years ago, and for some reason or another, I forgot about what happened that day. However, due to talking to my parents, I re-acquired or re-learned some relevant information about the event of my first day at school. Relearning is said to be a form of memory error because, despite the information that is re-acquired being accurate, it is acquired second-hand (e.g., from testimony), as opposed to the first-hand information that is acquired through remembering (from the past experience). Veridical confabulations are, in contrast, cases where subjects represent past events accurately, but the accuracy obtains accidentally (see Michaelian 2016a; Bernecker 2017). For example, a subject might describe accurately what he had for dinner yesterday and take himself to be remembering this event, but because the underlying processes producing his putative memory are not the usual processes that produce episodic memories, or perhaps because he is just guessing, he is said to be undergoing a veridical confabulation. Like cases of relearning, the information conveyed to the subject in veridical confabulations is not appropriately derived from his past experiences. While there might be room to dispute whether relearning and veridical confabulations are genuine forms of memory error (see, e.g., Bernecker 2017), both cases seem to be intuitively plausible. So, it seems reasonable to expect that a complete taxonomy of memory errors will need to account for them. The question is, however, whether the hybrid view can accommodate such errors.

I share the underlying motivation in the current literature that a complete taxonomy of memory errors needs to include relearning and veridical confabulations. It was not my task, however, to provide such a taxonomy in this paper. My discussion of the hybrid view focused instead on central cases of memory errors which have been discussed more extensively by philosophers of memory. Thus, the hybrid view should not be viewed, at least in this stage, as a complete account of memory errors. The discussion of relearning and veridical confabulation will, indeed, require further work from hybridists, but such work is complementary to the main task of this paper concerning memory errors, which was to discuss them in the context of the dispute about the objects of memory.

3.3 Indistinguishability revisited

Let us consider the problem of indistinguishability now. This problem refers to the fact that remembering, misremembering, and confabulating can be indistinguishable from the point of view subjects. Hybridism shares with representationalism the idea that there is a "common factor" between remembering, misremembering, and confabulating, which explains why they can be indistinguishable. However, unlike traditional representationalist accounts, it claims that only parts of the contents of those mental states are shared. Those parts correspond to the modes of presentation. Because, again, modes of presentation are responsible for making events and properties cognitively available to subjects, they might be unable to distinguish, from their own points of view, between remembering, misremembering, and confabulating. But, the fact that modes of presentation are shared need not conflict with the fact that only remembering is relational. For separatism, representational content can be different even if the phenomenology is the same. This allows hybridism to incorporate the relationalist idea that, in remembering, the past event and its properties are constitutive parts of the content, which explains why remembering differs from misremembering and confabulating with respect to its relational particularity. On the hybrid framework, then, indistinguishability and relational particularity are properly integrated.

3.4 Epistemic particularity revisited

Finally, let us consider the problem of epistemic particularity, which refers to the question of how memory can ground our knowledge of particular past events. Hybridism explains the epistemic particularity of remembering in terms of the distinctive nature of its content; more specifically, in terms of the nature of its relational particularity. The content of remembering is the only one that is non-gappy, meaning that it is the only one that instantiates *full* relational particularity. It is because of the non-gappinness of its content that remembering, as opposed to misremembering and confabulating, can ground our knowledge of particular past events.

The hybrid account thus accepts that there is something distinctive about remembering, but it does not, like relational accounts, interpret this distinctiveness as a reason to postulate a fundamental separation in relation to misremembering and confabulating. In this respect, it integrates this idea with the representationalist idea that remembering, misremembering, and confabulating share a "common factor". This provides an account of memory that respects its phenomenology, which is central to representationalist accounts, and its epistemic particularity, which is central to relationalist accounts.

One important thing to note in the context of the discussion of epistemic particularity is that the hybrid view is not saying that successful occurrences of remembering are forms of knowing the past (see, e.g., James 2017). That is, despite providing us with true or accurate information about past events, it does not necessarily follow that we know anything about those events by sim-

ply remembering them. Instead, by saying that memory instantiates epistemic particularity, I want to say that the hybrid view explains how memory makes it possible for us to know anything about the past. This is a very important distinction in the context of the philosophy of memory. The reason is that whether memory is factive, i.e., whether memory implies knowledge, is a topic of controversy among philosophers. Since I do not want to take part in this debate, I shall say that instantiating relational particularity, and hence epistemic particularity, is a necessary but not sufficient condition to say that our memories allow us to form knowledge of the past.

4 Hybridism and the philosophy of memory

Hybridism provides an alternative solution to the longstanding dispute between representationalism and relationalism. However, it can also be insightful for contemporary debates in philosophy of memory. I will focus on two different topics here: the co-temporality problem and the dispute between continuists and discontinuists about the relationship between episodic memory and other forms of episodic thinking.

4.1 The co-temporality problem

The co-temporality problem, as Bernecker puts it, refers to the question of "[h]ow [...] can we be in direct touch with events which occurred and ended a long time ago?" or "[h]ow can the direct object of my present state of remembering be something that has ceased to exist?" (Bernecker 2008, 69). This problem is particularly pertinent for relationalism, for as Norman Malcolm (1975) notes, the claim that we are directly acquainted with past events implies that the past events exist now. But, as the Bernecker quote makes explicit, there is a tension, if not a contradiction, in saying that things that are past exist in the present. So, relationalists have to explain how events can be constitutive parts of remembering when they are not co-temporal with it.

One solution, proposed by Bernecker (2008), is to adopt eternalism about events. On this view, "[e]vents do not cease to exist when they cease to be present or when there ceases to be evidence for them. Once an event has happened, it exists eternally; the only thing that still happens to it is that it retreats into the more and more distant past." (2008, 71). Essentially, eternalism goes against presentism, which is the view that only the present — and therefore only present events — exist. The co-temporality problem relies on presentism to make its case against relationalism, for it assumes, as a starting point, that past events are the kind of things that do not exist. So, in adopting eternalism, it is possible to say that past events can be constitutive parts of remembering and thus avoid the co-temporality problem.

It is not my goal to criticize eternalism here, but since some might see it as a high metaphysical price to pay in order to deal with the co-temporality problem (e.g., Michaelian 2016b, 63), hybridism might offer an alternative route

for them. For hybridism, what must exist at the time of remembering are the hybrid contents of memory, and not the events themselves. To clarify why this provides a distinctive answer to the co-temporality problem, we should go back to the discussion of constitution earlier. In the beginning of section 3, I suggested that there are multiple ways in which an event can constitute the contents of memory. One such way is by means of the presence of a memory trace. A memory trace, as I understand it, is a referential index of the original event that figures into the representational content of a memory. 9 It is because memory traces work as referential indexes that we can say that events constitute the content of our memories. However, in order to make this clear, I should say more about what a referential index is. A referential index is a thing A that is responsible for pointing to the existence of another thing B. A can point to the existence of B because A is existentially dependent on B, that is, A would not have been the case if B had not been the case. For example, smoke is a referential index for fire because it points to the existence of fire and smoke is existentially dependent on fire — i.e., assuming that there is smoke iff there is fire. What is important to note about referential indexes is that they can exist even in the absence of the things that they existentially depend on. That is, even in the absence of fire, smoke can still function as a referential index for fire, in the sense that it points to the existence of fire at a prior moment. Similarly, a particular memory trace T is a referential index for a particular past event E because it points to the existence of the event E. Like the case of smoke and fire, T can exist in the absence of E, upon which it is existentially dependent on. Thus, in the absence of E, T can still function as a referential index for E, in the sense that it points to the existence of E at a *prior* moment.

Now, the question is how does this help with the co-temporality problem? If one wants to avoid the problem, one needs to provide an account of how an event e can constitute the content of memory without requiring that e exists at each particular time that it is remembered. However, if e is to be a constitutive part of the content, this does not seem to be possible without appealing to eternalism. In logical terms, if a is a constitutive part of B, then, whenever B is the case, a is also the case. To avoid this worry, I will distinguish here between two senses of constituency. On the one hand, we can say that a materially constitutes B iff a is a material part of B. On the other hand, we can say that a metaphysically constitutes B iff the occurrence of B existentially depends on and is explained by the occurrence of a. Otherwise put, if a had not been the case, B would not have been the case.

For the hybrid view, events constitute contents in the second, but not the first, sense of constituency. That is, an event e is a (metaphysical) constitutive part of a content C iff the occurrence of C existentially depends on and is explained by the occurrence of e. So, when one successfully remembers an event e, it is not required that e materially exists at the time of remembering. What makes a given content C metaphysically constituted by e is the fact that,

⁹The notion of a referential index is an adapted version of Charles Peirce's notion of an *index*, which plays a central role in his theory of representations.

at the time of remembering, C is materially constituted by a memory trace. This is possible because memory traces are referential indexes, and as such, they establish the relationship of metaphysical constituency between contents and events by being material constituents of the contents. So, the hybrid view avoids the co-temporality problem because it allows for the claim that events (metaphysically) constitute the content of memories without requiring their material existence.

I do not expect the reader to get on board with this solution straightaway. One particular worry is that it relies heavily on a particular understanding of memory traces, so more is needed to motivate it properly. Another worry might be that this solution relies too much on the idea that there are memory traces, which might put off some readers. I have not argued for the existence of memory traces here, but since they are important in discussions about the neurobiology of memory (Thompson 2005; Poo et al. 2016), further exploring their implications for philosophical theorizing about memory can be potentially fruitful.

A third worry might be that more needs to be said in order to make explicit what it means for a thing A to be a metaphysical constituent of another thing B and whether referential indexes can be used to describe this relationship appropriately. One might argue, for example, that the relationship between hybrid contents and events established by memory traces is better understood in terms of dependence or entailment, rather than in terms of constitution. I want to acknowledge all these worries and say that they are worth developing in exploring the prospects of the hybrid view. However, due to the limitations of scope and space, I hope that the considerations above are sufficient to give at least an idea of how the hybrid answer to the co-temporality problem is supposed to work.

To conclude this discussion, I would like to address an objection that is likely to arise in the context of this discussion of constitution. This objection says that understanding constitution as metaphysical constitution undermines the main motivation for taking the hybrid view to be a form of hybrid-relationalist view. Relational particularity, one might argue, requires material constitution and not metaphysical constitution. In response, I do not think this is right. The main motivation to account for relational particularity is that it grounds epistemic particularity, which is aptly explained by metaphysical constitution. Due to the referential indexical nature of memory traces, one will have a memory whose content C is about a particular event e iff e was the case. Thus, C necessarily and existentially depends on and is explained by e having been the case, which is what is required to account for epistemic particularity. This might not, of course, satisfy a "pure" relationalist, but since the hybrid view does not aim at being a combination of pure representationalism and pure relationalism, but rather a compromised reconciliation, this is not necessarily a problem for the view.

4.2 Continuism vs. discontinuism

As I discussed in section 2, the idea that episodic memory is closely related to other forms of episodic thinking, such as episodic future thinking (Michaelian 2016b; Szpunar 2010) and episodic counterfactual thought (De Brigard 2014a), is receiving increasing support from empirical research on memory (see Suddendorf and Corballis 1997, 2007; Schacter et al. 2007, 2012). This has raised the question of whether episodic memory differs from other forms of episodic thinking only in degree, or whether the difference is one of kind. While people involved in the debate often focus on different aspects of the relationship between memory and episodic thinking (see Perrin and Michaelian 2017 for discussion), I will focus here on the metaphysical question of whether episodic memory and other forms of episodic thinking belong to the same metaphysical kind.

Continuists hold that the similarities between episodic memory and episodic thinking found by empirical research suggest that they are instances of the *same* kind (see, e.g., De Brigard 2014a; Michaelian 2016b). While continuists are not necessarily committed to the view that episodic memory and episodic thinking are the same thing, they do not think that the dissimilarities among them support a fundamental separation. In contrast, discontinuists hold that, while there might be striking similarities between episodic memory and episodic thinking, episodic memory possesses some features that makes it fundamentally *distinct* from other forms of episodic thinking. One common reason offered in favor of discontinuism is that episodic memory holds a causal relationship (Perrin 2016) or an "experiential" relationship (Debus 2008, 2014) to past events, while other forms of episodic thinking do not.

If a hybrid account of memory turns out to be correct, hybridism would support a broad continuist view according to which episodic memory and episodic thinking belong to the same metaphysical kind. A hybrid account would require one to take episodic thinking to possess hybrid contents too. Assuming that this is the case, we can explain the fact that episodic memory and episodic thinking belong to the same metaphysical kind by pointing out to the fact that they possess hybrid contents. While hybridism sits on the continuist side, it can still incorporate the discontinuist idea that episodic memory is inherently relational. On this account, while (successful) episodic memory would be nongappy because it is successful in referring to events and their properties, episodic thinking would be gappy, because it fails to do so.

Episodic thinking is considered to be gappy because it does not refer to existing events and to instantiated properties. In different forms of episodic thinking, whether we are thinking about events that can possibly happen or events that can no longer happen, our thoughts do not refer to particular events. Thus, their modes of presentation are gappy like the modes of presentation of confabulating. But, despite establishing that the contents of episodic thinking are gappy, hybridism can explain the phenomenological similarities between episodic memory and episodic thinking. Due to possessing modes of presentation in their contents, the phenomenological particularity of episodic thinking, or the fact

that it seems to subjects that they are thinking about particular events is explained by hybridism. Moreover, it also explains why episodic memory is unique with respect to its relational particularity. Because of the gappiness of episodic thinking, episodic memory is the only one capable of instantiating relational particularity. So, hybridism would grant continuists that episodic memory and episodic thinking are continuous with respect to their phenomenological particularity, but would concede to discontinuists by saying that they are discontinuous in relation to their relational particularity.

One natural worry here would be in relation to the relationship between unsuccessful occurrences of remembering, more specifically confabulating, and episodic thinking. If hybridism is right, then it might be argued that there is no difference between episodic thinking and confabulating because both have fully gappy contents, which is an odd result. One strategy to address this worry would be to say that confabulating is a misnomer for what are actually forms of episodic thinking directed to the past. While this is a possible answer to the problem, I think this strategy should be avoided if other alternatives are available. The main reason is that hybridism would need to provide independent reasons to think that confabulating is simply a form of episodic thinking directed to the past, but it is not clear whether there are such reasons.

As an alternative, I think that a more detailed account of the modes of presentation present in the contents of remembering, misremembering, confabulating, and different forms of episodic thinking, can potentially provide a framework to distinguish between them. To clarify this point, let me first distinguish between different forms of episodic thinking. I will follow De Brigard (2014a) and distinguish not only between forms of thinking about possible past and future events, but also between forms of thinking about counterfactual past and future events. Consider, first, *episodic future thinking*. These refer to cases where we think about events that can possibly happen in the future. For example, when I think about my holidays at the end of the year, my thought presents me with an event instantiating certain properties. However, despite seeming so at the phenomenological level, the thought fails to refer to existing things, for the event in question does not exist and the properties are, consequently, non-instantiated.

Consider, second, future-oriented counterfactual thinking. These refer to cases where we think about events that could have been the case in the future, but are no longer possible. For example, when I think about how my holidays would be if I had saved money to pay for them, I am thinking about an event that would happen in the future if I had done something differently in the past. However, at the present, it is no longer possible for me to save money to pay for the holidays, which makes this an impossible event. In such cases, the events in question also do not exist and their properties are non-instantiated. Thus, despite presenting me with a particular event and some seemingly instantiated properties, the thought fails to refer to existing things.

Consider, now, thoughts that are directed at the past. Assuming that episodic memory is a form of episodic thinking, as De Brigard (2014a) does, we have, on the one hand, successful and unsuccessful occurrences of remembering, which we have discussed already, and, on the other hand, past-oriented

counterfactual thinking. The latter refers to cases where we think about events that could have been the case in the past. For example, when I think about how my holidays would have been in 2010 had I saved money that year, I am entertaining a thought about an event that could have happened in the past if I had done something differently. Similarly to episodic future thinking and future-oriented counterfactual thinking, the event in question does not exist and the properties are non-instantiated. Thus, despite presenting me with a particular event and some seemingly instantiated properties, the thought fails to refer to existing things.

Now, to see how we can distinguish between those occurrences of episodic thinking, including successful and unsuccessful occurrences of remembering, remember that, for hybridism, the content of a given thought is partly determined by its phenomenology and partly determined by how it relates to the things it is about. These are, respectively, the phenomenological particularity and the relational particularity of mental states. The claim hybridism puts forward with respect to the relationship between episodic memory and different forms of episodic thinking is that they are continuous in terms of their phenomenological particularity, but discontinuous in terms of their relational particularity. So, we need an account of the relationship between episodic memory and episodic thinking that explains (1) how all those forms of thinking instantiate phenomenological particularity; (2) how occurrences of remembering instantiate full or partial relational particularity; and (3) how forms of episodic thinking differ from each other in terms of content.

While the difference of content of successful and unsuccessful occurrences of remembering is due to their relational particularity, or whether and how the modes of presentation refer, the difference of content of different forms of episodic thinking is to be found in how phenomenological particularity is instantiated, or in the kinds of modes of presentation that compose their contents. The motivation for this is quite simple: because different forms of episodic thinking are considered to be fully gappy on the hybrid account, the differences in their contents should come from the parts responsible for their phenomenologies. To make sense of these differences, however, we need an account of what kinds of modes of presentation there are and which ones are present in different occurrences of episodic thinking.

When we look at the phenomenology of the various forms of episodic thinking described above, it is possible to identify two important differences among them. First, they differ with respect to whether the events are presented as being about the past or the future and whether they are presented as being actual, possible, or not possible. And second, they differ in relation to whether the properties are presented as instantiated or not. This allows us to distinguish between four kinds of modes of presentation for events and two kinds of modes of presentation for properties to explain the differences in the phenomenology of those thoughts.

Events	
Kinds of MOPs	Temporal location / Actual-
	ity or possibility
$MOP_{past/actual}$	Past / Actual
$MOP_{past/n-possible}$	Past / Not-possible
$MOP_{future/possible}$	Future / Possible
$MOP_{future/n-possible}$	Future / Not-possible

Properties	
Kinds of MOPs	Instantiation
$MOP_{instantiated}$	Instantiated
$MOP_{n-instantiated}$	Non-instantiated

Let us now consider this in relation to the content of episodic thinking. To start, consider remembering, misremembering, and confabulating. In all of them, the modes of presentation present subjects with events that seem to be past and actual and with properties that seem to be instantiated by those events. While only remembering is successful in referring to actual past events and to instantiated properties, it is still the case that it *seems* to subjects that, in remembering, misremembering, and confabulating, their mental states are about such things. So, we can say that the modes of presentation composing the content of remembering, misremembering, and confabulating are modes of presentation presenting events as being past and actual and modes of presentation presenting properties as being instantiated. This leads us to a more fine-grained characterization of the content of those mental states:

Remembering: $[MOP_{past/actual}(e);MOP_{instantiated}(p)]$ Misremembering: $[MOP_{past/actual}(e);MOP_{instantiated}(_)]$ Confabulating: $[MOP_{past/actual}(_);MOP_{instantiated}(_)]$

Note that this characterization is compatible with the account given in section 3. Remembering, misremembering, and confabulating still differ with respect to their contents, but they have the same phenomenology because their contents are composed by the same kinds of modes of presentation.¹⁰

In comparison, consider now episodic future thinking, future-oriented counterfactual thinking, and past-oriented counterfactual thinking. In cases of episodic future thinking (EFT), the modes of presentation present subjects with events that seem to be future and possible and with properties that seem to be instantiated by those events. In cases of future-oriented counterfactual thinking

¹⁰It might be argued here that the non-gappy modes of presentation in remembering and misremembering are different from the gappy modes of presentation in confabulating. In response, I want to clarify that when I say that the modes of presentation in remembering, misremembering, and confabulating are of the same kind, I mean that *how* they present events to the subject is the same, regardless of whether or not they are successful in referring. Thus, because modes of presentation are responsible for the phenomenology of memory and because the phenomenology does not necessarily change when modes of presentation are fulfilled, it is not incoherent to say that remembering, misremembering, and confabulating can have the same kind of modes of presentation.

(FOCT), the modes of presentation present subjects with events that seem to be future and non-possible and with properties that seem to be instantiated by those events. In cases of past-oriented counterfactual thinking (POCT), the modes of presentation present subjects with events that seem to be past and non-possible and with properties that seem to be instantiated by those events. In all those cases, because the events do not exist, the contents are fully gappy. Thus, we have the following characterization of the contents of those mental states:

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 \begin{array}{ll} \textbf{EFT:} & [\text{MOP}_{future/possible}(\_-); \text{MOP}_{instantiated}(\_-)] \\ \textbf{FOCT:} & [\text{MOP}_{future/n-possible}(\_-); \text{MOP}_{instantiated}(\_-)] \\ \textbf{POCT:} & [\text{MOP}_{past/n-possible}(\_-); \text{MOP}_{instantiated}(\_-)] \end{array}
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Now that we have a characterization of the content of different forms of episodic thinking, we can see whether hybridism satisfies (1)–(3) above. (1) establishes that a hybrid account of the relationship between episodic memory and episodic thinking must explain how they instantiate phenomenological particularity. In the characterization of the content of episodic thinking given above, this requirement is satisfied. Because the contents of different forms of episodic thinking contain modes of presentation, we can explain why, like in occurrences of remembering, it seems to subjects that their thoughts are about particular events with particular properties. Condition (2) requires, in contrast, an account of why some occurrences of remembering instantiate full or partial relational particularity, while other forms of episodic thinking do not. The hybrid account provided also satisfies (2): remembering instantiates full relational particularity because both modes of presentation are successful in referring; misremembering instantiates partial relational particularity because only the mode of presentation of events establishes reference; and confabulating and other forms of episodic thinking are fully gappy because none of their modes of presentation are successful in referring. Finally, (3) requires an explanation of how different forms of episodic thinking and confabulating differ in terms of content, given that they are all fully gappy. This is also accommodated in the framework above, for despite being fully gappy, the content of confabulating and other forms of episodic thinking differ because they are constituted by different modes of presentation. This, again, is fully consistent with the notion of hybrid content developed in section 3, for phenomenology partly determines the content of mental states. Thus, taking different forms of episodic thinking to have hybrid contents preserves important continuist and discontinuist intuitions.

5 Objections

One assumption that underlies the proposal of this paper is that the dispute between representationalism and relationalism in perception and memory have sufficiently similar elements, such that the enterprise to analyze hybrid views of perception to start thinking of hybrid views of memory is justified. In this section, I will briefly consider some differences between memory and perception that could serve as bases for objections against my proposal. I also consider one objection which says that hybridism does not succeed in avoiding disjunctivism.

5.1 The character of memory vs. the objects of memory

It might be argued that there is an important difference between the contemporary dispute between representationalism and relationalism about perception and the same dispute in memory. Unlike in the philosophy of memory, contemporary philosophers of perception are concerned with the *character* of perception, as opposed to the nature of its objects. Although how exactly to characterize the objects of perception across different modalities is a matter of dispute (see, e.g., O'Callaghan 2011, 2016), it is widely agreed that they are mind-independent things or events in the environment. What representationalists and relationalists ultimately disagree about is whether perception is, fundamentally, a matter of representing the world or of being directly related to it. Representationalists, as Tim Crane (2006) points out, hold that "a perceptual representation need not essentially involve a relation to what it represents" (133), meaning that there can be instances of perceptual experiences that do not relate to anything, such as hallucinating seeing a unicorn (see, e.g., Tye 2002; Byrne 2001; Dretske 2003). In contrast, relationalists insist that there cannot be perception without a relation (see, e.g., Martin 2004; Brewer 2007; Fish 2009), which motivates, in part, their appeal to disjunctivism to deal with the occurrence of hallucinations.

While it is true that discussions about the character and the objects of perception and memory are two different things, it is also true that they are closely related. It is not possible to give a proper account of what the objects of memory are if we do not have a proper understanding of the character of memory. Hybridism is, in this perspective, an attempt to show that the dispute between representationalism and relationalism about the nature of the objects of memory can be resolved by adopting an appropriate (i.e., a hybrid) view of the character of memory. In other words, if the character of memory is hybrid, as hybridism suggests, the objects of memory are indeed the past events themselves, but we only become aware of those events by undergoing representational states whose contents are inherently relational. Recently, Bernecker (2008) seems to hint at a similar view when he says that

Though remembering something may require the having of memory-data, there is no reason to suppose we are aware of these memory-data themselves. I am aware of a past event by internally representing the event, not by being aware of the internal representation of the event. Memory-data do not function as the primary objects of awareness, but are merely the vehicles of the remembered information. Memory is indirect in the sense that it involves a series of causal intermediaries between the past event and the memory experience (memory-datum). But from this it does not follow that memory is indirect in the sense of involving a prior awareness of

something other than the past event. (75)

Memory-data, or, as I have been using the term, representations, are the vehicles by means of which we become aware of past events. Despite his account being compatible with hybridism, Bernecker does not say much about what those memory-data should be in order to make it possible for one to be aware of past events themselves by means of representing them. Hybridism, in contrast, deals with this question directly. In doing so, it provides an account of what the character of memory should be in order to reconcile representationalist and relationalist intuitions, such that a common ground about what the objects of memory are can be found.

5.2 The temporality of the objects of perception and memory

Another disanology between perception and memory relates to the *temporality* of their objects. The objects of perception are co-temporal with perceptual experiences, which makes it easy to see how they can be constitutive parts of their contents. However, the objects of memory are not co-temporal with memorial states. Past events no longer exist when we remember them, so it is hard to see how they can be constitutive parts of the content of remembering. Thus, perhaps it is simply misleading to say that memory has hybrid contents in the same way that perception does.

As I pointed out in section 4.1, even if it is true that this disanalogy is genuine, it does not threaten hybridism. Alternatively, it is possible to question whether the disanalogy is actually the case. As Bernecker (2008) notes, "also in the case of perception we have to allow that what is directly perceived is not contemporary with the act of perceiving it", for "perceiving a physical object is a causal process that takes time" (69, see also Russell 2001, 17–8). Thus, strictly speaking, the objects of perception are not co-temporal with perceptual experiences, for the causal processes leading up to perceptual experiences require time to happen. Although the time separating remembering and past events is significantly longer than the time separating perceiving and its objects, the difference here is one of degree and not one of kind. So, if there is a disanology between perception and memory, it is not as dramatic as it initially appeared.

5.3 Autonoetic consciousness

A third difference between perception and memory is that the latter seems to involve a unique kind of consciousness, namely, what Tulving (1985b; 2002) called autonoetic consciousness, or simply autonoesis (see also Klein 2015). Broadly speaking, one might understand autonoesis in two ways. On the first understanding, autonoesis refers to what philosophers usually call the "feeling of pastness" (Russell 1921, 161–2) associated with episodic memories. On the second understanding, it refers to the sense of self or "ownership" that episodic memories carry with them (see Klein and Nichols 2012). Although Tulving

distinguished these two understandings later in his works, the initial characterization provided by him, according to which autonoesis refers to the sense of self in subjective time, seems to suggest that autonoesis involves both the elements above. Since this is perhaps the most common definition of the term, I will stick to it here.

By relying on a characterization of content inspired by perceptual experiences, it might be argued that hybrid contents fail to account for this essential feature of memory. Although some, such as Fernández (2016), argue for a characterization of autonoesis in terms of content, it is commonly accepted that autonoesis belongs to the phenomenological dimension of memory. Thus, when we take into account hybridism's commitment to separatism, it is not required that autonoesis be an essential element of the content of memory. It is consistent with hybridism that differences in the phenomenology of a mental state need not imply differences in its content, as long as those differences are explained by something external to the content. Another alternative would be to suggest that autonoesis is not a feature of episodic memories themselves, but of doxastic states accompanying them, which are "recruited" by particular elements of their contents (Sant'Anna and Michaelian forthcoming). For example, we can say that your memory of your tenth birthday party has the feelings of pastness and of ownership not because they are built into the content or into the phenomenology of memory, but rather because you hold certain beliefs that accompany your memory, such as that the child represented in the thought is you, that events in which you are a child are in the past, and so on. Another alternative would be to explain autonoesis as arising out of the functioning of metacognitive processes responsible for detecting specific cues present in the content of memory (see, e.g., Dokic 2014).

Given that there is no agreement as to what autonoetic consciousness is, and given that this is still a controversial topic in the literature, I do not want to commit to any particular alternative here. A full hybrid account of episodic memory will, of course, be required to provide an account of autonoesis, and some of the alternatives described above are potentially compatible with the hybrid view. However, showing that hybridism can in fact rely on them, or whether a new alternative is needed to explain autonoesis, is the task of a future project.

5.4 Disjunctivism again?

To conclude the paper, I would like to reply to one objection that can be raised to hybridism. This objection says that hybridism fails to avoid disjunctivism, for the framework I provided is logically compatible with the disjunctivist claim that successful and unsuccessful occurrences of remembering are only similar in relation to their phenomenology.¹¹

This objection overlooks two important points of hybridism. The first point refers to the fact that hybridism is not committed to the claim that the only

¹¹I would like to thank Markus Werning for raising this objection.

thing shared by successful and unsuccessful occurrences of remembering is the phenomenology. As it became clear in the discussion of the content of episodic thinking, phenomenology is only a part of the content of remembering and episodic thinking. So, successful and unsuccessful occurrences of remembering are similar with respect to their phenomenology because they share a more basic "common factor", which is that they are mental states with representational content. So, those mental states are similar in a more fundamental way, which actually explains why they share the same phenomenology, thus making hybridism incompatible with the kind of metaphysical conclusions advanced by disjunctivists.

The second point is that the objection overlooks the fact that hybridism is not concerned with the logical coherence of disjunctivism, but with the metaphysical conclusions drawn from the claim that the only thing shared by successful and unsuccessful occurrences of remembering is the phenomenology. Even if, for the sake of the argument, we grant that hybridism is compatible with this claim, it does not follow that it is committed to disjunctivism, or at least to disjunctivism in the way described in section 2. The problematic aspect of disjunctivism, from the hybridist's point of view, is that the disjunctive claim supports the conclusion that successful and unsuccessful occurrences of remembering belong to two different metaphysical kinds. Since this claim is not implied by hybridism, it is not the case that it is committed to disjunctivism even if we accept that the only thing shared by successful and unsuccessful occurrences of remembering is the phenomenology.

Acknowledgments I'm grateful to three anonymous referees and the editor for helpful comments and suggestions made to previous drafts of the paper. I'm also grateful to Kirk Michaelian, Andrew Moore, Cathy Legg, Chloe Wall, Ligia Coutes, Denis Perrin, and Bill Fish for reading and commenting on previous drafts of the paper. I'm also indebted to audiences at the University of Otago and at the University of Cologne for discussions on previous versions of this material.

References

Bartlett, F. C. (1995). Remembering: A Study in Experimental and Social Psychology. Cambridge University Press. Original publication 1932. 4

Bernecker, S. (2008). The Metaphysics of Memory. Springer. 6, 16, 24, 25

Bernecker, S. (2017). A causal theory of mnemonic confabulation. Frontiers in Psychology, 8:1207. 14

Brentano, F. (2014). Psychology from an empirical standpoint. Routledge. 4

Brewer, B. (2007). Perception and its objects. *Philosophical Studies*, 132(1):87–97. 24

- Byrne, A. (2001). Intentionalism defended. The Philosophical Review, 110(2):199–240. 7, 24
- Byrne, A. (2009). Experience and content. *The Philosophical Quarterly*, 59(236):429–451. 7
- Conway, M. A. and Loveday, C. (2015). Remembering, imagining, false memories & personal meanings. *Consciousness and Cognition*, 33:574–581. 4
- Crane, T. (2001). Intentional objects. *Ratio*, 14(4):336–349. 4
- Crane, T. (2006). Is there a perceptual relation? In *Perceptual experience*, pages 126–146. Oxford: Clarendon Press. 24
- Crane, T. (2013). The objects of thought. Oxford University. 4
- De Brigard, F. (2014a). Is memory for remembering? Recollection as a form of episodic hypothetical thinking. *Synthese*, 191(2):155–185. 3, 4, 11, 19, 20
- De Brigard, F. (2014b). The nature of memory traces. *Philosophy Compass*, 9(6):402–414. 6
- Debus, D. (2008). Experiencing the past: A relational account of recollective memory. *Dialectica*, 62(4):405–432. 2, 3, 4, 19
- 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. 3, 19
- Dokic, J. (2014). Feeling the past: a two-tiered account of episodic memory. Review of Philosophy and Psychology, 5(3):413–426. 26
- Dretske, F. (1997). Naturalizing the Mind. MIT Press. 7
- Dretske, F. (2003). Experience as Representation. *Philosophical Issues*, 13(1):67-82. 24
- Fernández, J. (2016). Epistemic generation in memory. *Philosophy and Phenomenological Research*, 92(3):620–644. 26
- Fernandez, J. (2017). The intentional objects of memory. In Bernecker, S. and Michaelian, K., editors, *The Routledge Handbook of Philosophy of Memory*. Routledge. 8
- Fish, W. (2009). *Perception, Hallucination, and Illusion*. Oxford University Press. 4, 8, 24
- Frege, G. (1980). On sense and reference. In Geach, P. and Black, M., editors, Translations from the Philosophical Writings of Gottlob Frege. Blackwell, Oxford. 9

- Hume, D. (2011). A Treatise of Human Nature. Clarendon Press. Original publication 1739.
- James, S. (2017). Epistemic and non-epistemic theories of remembering. *Pacific Philosophical Quarterly*, 98(S1):109–127. 15
- Klein, S. B. (2015). What memory is. Wiley Interdisciplinary Reviews: Cognitive Science, 6(1):1–38. 25
- Klein, S. B. and Nichols, S. (2012). Memory and the sense of personal identity. *Mind*, pages 677–702. 25
- Laird, J. (2014). A Study in Realism. Cambridge University Press. Original publication 1920. 2
- Locatelli, R. and Wilson, K. A. (2017). Introduction: Perception without representation. *Topoi*, 36:197–212. 8
- Locke, J. (1975). An essay concerning human understanding. In Nidditch, P., editor, The Clarendon Edition of the Works of John Locke: An Essay Concerning Human Understanding. Oxford University Press. 2
- Logue, H. (2014). Experiential content and nave realism: A reconciliation. In Brogaard, B., editor, *Does perception have content?* Oxford University Press, Oxford. 5
- Malcolm, N. (1975). Memory as direct awareness of the past. Royal Institute of Philosophy Lectures, 9:1–22. 16
- Martin, C. B. and Deutscher, M. (1966). Remembering. *Philosophical Review*, 75:161–96. 6
- Martin, M. G. F. (2004). The limits of self-awareness. *Philosophical Studies*, 120(1):37–89. 4, 8, 24
- McDowell, J. (1996). Mind and world. Harvard University Press. 8
- McDowell, J. (2013). Perceptual Experience: Both Relational and Contentful. European Journal of Philosophy, 21(1):144–157. 5
- Meinong, A. (1960). The theory of objects. In Chisholm, R. M., editor, *Realism and the Background of Phenomenology*. Free Press. 4
- Michaelian, K. (2011). Generative memory. *Philosophical Psychology*, 24(3):323–342. 4
- Michaelian, K. (2016a). Confabulating, misremembering, relearning: The simulation theory of memory and unsuccessful remembering. Frontiers in Psychology, 7:1857. 12, 14
- Michaelian, K. (2016b). Mental Time Travel: Episodic Memory and Our Knowledge of the Personal Past. MIT Press. 3, 4, 16, 19

- Michaelian, K. and Sutton, J. (2017). Memory. In Zalta, E. N., editor, *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University. 2, 4
- O'Callaghan, C. (2011). Lessons from beyond vision (sounds and audition). *Philosophical Studies*, 153(1):143–160. 24
- O'Callaghan, C. (2016). Objects for multisensory perception. *Philosophical Studies*, 173(5):1269–1289. 24
- Perrin, D. (2016). Asymmetries in subjective time. In Michaelian, K., Klein, S. B., and Szpunar, K. K., editors, Seeing the Future: Theoretical Perspectives on Future-Oriented Mental Time Travel, pages 39–61. Oxford University Press. 3, 19
- Perrin, D. and Michaelian, K. (2017). Memory as mental time travel. In Bernecker, S. and Michaelian, K., editors, *The Routledge Handbook of Philosophy of Memory*. Routledge. 19
- Poo, M.-m., Pignatelli, M., Ryan, T. J., Tonegawa, S., Bonhoeffer, T., Martin, K. C., Rudenko, A., et al. (2016). What is memory? The present state of the engram. *BMC Biology*, 14(1):40. 18
- Reid, T. (2000). An Inquiry into the Human Mind on the Principles of Common Sense. Pennsylvania State University Press. Original publication 1764. 2
- Robins, S. (2016a). Representing the past: Memory traces and the causal theory of memory. *Philosophical Studies*, 173(11):2993–3013. 6
- Robins, S. K. (2016b). Misremembering. *Philosophical Psychology*, 29(3):432–447. 12, 14
- Rowlands, M. (2017). Arguing about representation. *Synthese*, 194(11):1–18. 3, 6
- Russell, B. (1921). The Analysis of Mind. George Allen & Unwin, London. 25
- Russell, B. (2001). The problems of philosophy. OUP Oxford. Original publication 1912. 2, 25
- Russell, B. (2005). Analysis of mind. Routledge. Original publication 1921. 2
- Sant'Anna, A. (2017). Perception pragmatized: a pragmatic reconciliation of representationalism and relationalism. *Philosophia*. Online first. 5, 8
- Sant'Anna, A. and Michaelian, K. (201x). Thinking about events: A pragmatist account of the objects of episodic hypothetical thought. Review of Philosophy and Psychology. Forthcoming. 26
- Schacter, D. L., Addis, D. R., and Buckner, R. L. (2007). Remembering the past to imagine the future: the prospective brain. *Nature Reviews Neuroscience*, 8(9):657–661. 19

- Schacter, D. L., Addis, D. R., Hassabis, D., Martin, V. C., Spreng, R. N., and Szpunar, K. K. (2012). The future of memory: remembering, imagining, and the brain. *Neuron*, 76(4):677–694. 4, 19
- Schellenberg, S. (2010). The particularity and phenomenology of perceptual experience. *Philosophical Studies*, 149(1):19–48. 4, 5, 9, 12
- Schellenberg, S. (2011). Perceptual content defended. Noûs, 45(4):714–750. 5,
- Schellenberg, S. (2014). The relational and representational character of perceptual experience. In Brogaard, B., editor, *Does perception have content?* Oxford University Press, Oxford. 4
- Schellenberg, S. (2016). Perceptual particularity. *Philosophy and Phenomenological Research*, 93(1):25–54. 5, 9
- Siegel, S. (2010). The contents of visual experiences. Oxford University Press, Oxford. 4
- Squire, L. R. (2009). Memory and brain systems: 1969–2009. Journal of Neuroscience, 29(41):12711–12716. 2
- Suddendorf, T. and Corballis, M. C. (1997). Mental time travel and the evolution of the human mind. *Genetic, social, and general psychology monographs*, 123(2):133–167. 4, 19
- Suddendorf, T. and Corballis, M. C. (2007). The evolution of foresight: What is mental time travel, and is it unique to humans? *Behavioral and Brain Sciences*, 30(03):299–313. 4, 19
- Szpunar, K. K. (2010). Episodic future thought: An emerging concept. *Perspectives on Psychological Science*, 5(2):142–162. 19
- Thompson, R. F. (2005). In search of memory traces. Annu. Rev. Psychol., 56:1–23. 18
- Tulving, E. (1972). Episodic and semantic memory. In E.Tulving and Donaldson, W., editors, *Organization of memory*, pages 381–402. Academic Press. 2
- Tulving, E. (1985a). Elements of Episodic Memory. Oxford University Press. 2
- Tulving, E. (1985b). Memory and consciousness. Canadian Psychology/Psychologie canadienne, 26(1):1. 25
- Tulving, E. (2002). Episodic memory: from mind to brain. *Annual Review of Psychology*, 53(1):1–25. 25
- Tye, M. (2002). Consciousness, Color, and Content. A Bradford Book, reprint edition. 7, 24

Werning, M. and Cheng, S. (2017). Taxonomy and unity of memory. In Bernecker, S. and Michaelian, K., editors, *The Routledge Handbook of Philosophy of Memory*. Routledge. 2