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► **To cite this version:**

Jérôme Dokic. Episodic remembering and affective metacognition. *Acta Scientiarum. Human and Social Sciences*, 2022, 43 (3), pp.e61022. 10.4025/actascihumansoc.v43i3.61022 . hal-03912035

HAL Id: hal-03912035

<https://hal.science/hal-03912035>

Submitted on 23 Dec 2022

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Episodic remembering and affective metacognition

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ABSTRACT. The aim of this article is to clarify, in the light of philosophical and psychological research on affective metacognition, the nature of the episodic feeling, which determines what it is like to remember or relive in one's mind an episode from one's own past. The hypothesis defended is that the episodic feeling is a metacognitive experience, which rests on mechanisms that monitor the source of the relevant information. Although there is presently no direct psychological evidence for the existence of the episodic feeling, studies on a specific kind of feelings of knowing, which are especially tied to episodic memory, can help cast light on the nature of the episodic feeling. Overall, the hypothesis that the episodic feeling is a metacognitive experience squares well with a general theory of metacognition. It leads to a two-tiered account of episodic remembering. On this account, the phenomenology characteristic of episodic remembering is extrinsic to the memory state itself. When we have a memory, it feels episodic only if it is properly monitored at the metacognitive level. However, an episodic memory can be attributed to a subject in the absence of an episodic feeling. The memory itself can be a mere unconscious mental condition, as in some cases of tip-of-the-tongue experiences, or its content can be transparent to the subject via a conscious imagining.

Keywords: Episodic memory; metacognition; epistemic feelings; feelings of knowing; imagination.

Lembrança episódica e metacognição afetiva

RESUMO. O objetivo deste artigo é esclarecer, à luz da pesquisa filosófica e psicológica sobre metacognição afetiva, a natureza do sentimento episódico que determina como é lembrar ou reviver na mente um episódio do seu próprio passado. A hipótese defendida é que o sentimento episódico é uma experiência metacognitiva que se apoia em mecanismos que monitoram a fonte das informações relevantes. Embora não haja atualmente nenhuma evidência psicológica direta para a existência do sentimento episódico, estudos sobre um tipo específico de sentimentos de conhecimento, que estão especialmente ligados à memória episódica, podem ajudar a lançar luz sobre a natureza do sentimento episódico. No geral, a hipótese de que o sentimento episódico é uma experiência metacognitiva se enquadra bem com uma teoria geral da metacognição. Ela resulta em uma explicação dual da lembrança episódica. Nesta teoria, a fenomenologia característica da lembrança episódica é extrínseca ao próprio estado de memória. Quando temos uma memória, ela é experienciada como episódica apenas se for devidamente monitorada no nível metacognitivo. No entanto, uma memória episódica pode ser atribuída a um sujeito na ausência de um sentimento episódico. A própria memória pode ser uma mera condição mental inconsciente, como em alguns casos de experiências da ponta da língua, ou seu conteúdo pode ser transparente para o sujeito por meio de uma imaginação consciente.

Palavras-chave: Memória episódica; metacognição; sentimentos epistêmicos; sentimento de conhecimento; imaginação.

Received on September 27, 2021.

Accepted on December 8, 2021.

Introduction

Martin Conway described episodic remembering as “[...] a state of conscious awareness distinguished by a specific type of mental content and a particular cognitive feeling” (Conway, 2007, p. 237). We know what it is like to relive in our mind a particular event (or situation) from our personal past. We feel that we are drawing on our internal resources to make the event re-appear to us much as we experienced it. This episodic way of remembering, which involves the sense of mentally travelling into the past, has a specific phenomenology, which Tulving (1985, 2002) dubbed ‘autonoetic consciousness’.

My aim in what follows is to clarify, in the light of philosophical and psychological research on affective metacognition, the nature of the cognitive feeling involved in episodic memory, which I shall call ‘the episodic

feeling'. Affective metacognition is the capacity to gain information about our own cognitive processes and episodes through epistemic feelings.¹ For instance, we may judge that we have met someone because they feel familiar to us, even if we cannot presently say where and when. The hypothesis to be defended here is that the episodic feeling results from a metacognitive competence of the same general kind as that which concerns the feeling of familiarity or the feeling of knowing. The episodic feeling is a metacognitive experience, which tells us something about the cognitive pedigree of our present memory experience. What is monitored in this case is not just whether we know or have experienced something in the past, but also that our present memory experience is first-hand, i.e., rests on an informational state that derives directly from our past experience, without the essential intervention of external testimony or personal-level inference.

1. Three conceptions of the episodic feeling

In episodic remembering, we have an episodic feeling, and we have a content-providing experience, i.e., an experience whose content corresponds to what we seem to remember, for instance that ski accident in which I was involved as a teenager. How does the former relate to the latter? Three options are available:²

- A. The episodic feeling is built into the 'content' of the content-providing experience.
- B. The episodic feeling is built into the 'attitude' (or 'psychological mode') of the content-providing experience, independently of its content.
- C. The episodic feeling is a separate experience, which accompanies the content-providing experience.

On option A, the episodic feeling results from what is remembered. For instance, Fernández (2019) argues that the content of episodic memory is self-referential. In remembering a past event, we are also presented with the fact that our memory has a certain causal origin. The content of my remembering this nasty ski accident is not just that I broke my leg, but also that my memory experience originates in the accident itself as I witnessed and participated in it. On this view, the content-providing experience belongs to memory essentially because it has a special kind of content, namely self-referential content.³

On option B, the episodic feeling does not result from what is remembered but from the attitude or mode of remembering itself, independently of its content. For instance, Recanati (2007) claims that "[...] both the pastness of the remembered event and the subject's involvement in that event derive from the fact that what is represented is represented in the memory mode" (Recanati, 2007, p. 176). He further argues that when we are remembering something we have witnessed in the past, the content of our present memory experience is (more or less) the same as the content of our previous perceptual experience, namely some temporally neutral proposition. The time factor is provided by the relevant attitude – pastness for memory and presentness for perception. On this view, the content-providing experience belongs to memory because it has special attitudinal features that are not reflected in its content.

The first two options try to account for the episodic feeling within a single experience, namely the content-providing experience, considered as a memory. In contrast, on option C, the episodic feeling is not determined by either semantic or attitudinal features of the content-providing experience. It is a distinct *sui generis* experience, which accompanies the content-providing experience. When we episodically remember a past event, we really have two experiences: one makes us aware of the content of our memory (the past event), and the other makes us feel like we are remembering (rather than, say, merely imagining).

Note that if the episodic feeling is not monolithic, various divide-and-conquer strategies are available. Perrin, Michaelian, and Sant'Anna (2020) analyze auto-noetic consciousness, or what we call here the episodic feeling, as involving four components: pastness, self, causality, and singularity. Auto-noetic consciousness, as it is realized in memory, involves an intentional relation to a past event (pastness), which is also represented as belonging to one's own life (self). The present memory is also represented to depend causally on one's previous experience(s) (causality). Finally, episodic memory is about particular events, as opposed to repeatable types (singularity). The extent to which these components are dissociable and give rise to distinct episodes of consciousness is an important question. For instance, one might follow option A for pastness (pace Recanati, our episodic memories would have essentially past-tense contents), but prefer option C for causality, which would be determined at the level of a separate feeling.

¹ See, e.g., Beran, Brandl, Perner, and Proust (2012), Proust (2013), Arango-Muñoz and Michaelian (2014), and Loev (2019).

² These options are not exhaustive. One might reject the very idea of a special phenomenology of episodic remembering (see Hoerl, 2001) or claim that it derives from non-affective, purely cognitive states such as beliefs.

³ See also Dokic (2001) for an early attempt of mine, now retracted, at a self-referential theory of episodic memory.

In the remainder of this article, I would like to explore the hypothesis that a central component of the episodic feeling, namely causality, is best accounted for in terms of option C. Remembering something episodically is incompatible with ignorance about the *source* of the relevant information, for instance whether it originates in previous acquaintance, inference, or external testimony. On the contrary, episodic remembering comes with a sense of ‘first-handedness’ (Dokic, 2014). When we remember a past event of our life, we feel that we possess the remembered piece of information ‘first-handedly’, i.e., that the informational state involved in our memory derives directly from our past experience.

The sense of first-handedness is clearly about causality or causal dependence, but we can leave open whether it is richer and involves, in addition, the self and pastness components. Moreover, the notion of first-hand memory is flexible enough to accommodate various reconstructive processes occurring between our past experience and our present memory, so long as these processes belong to our own memory resources, and do not owe too much to personal-level inference or external testimony. I do not know if it is flexible enough to take on board Michaelian (2016)’s radical claim that successful remembering an event does not even require previous experience of the event, but I shall assume that veridical episodic memories have contents mainly in virtue of previous experiences having similar contents or partial contents which together make sense of the present memories.

For simplicity’s sake, I will continue to talk about the episodic feeling, but we should keep in mind that I am interested more specifically in the sense of first-handedness considered as the causality component of the episodic feeling.

The hypothesis to be defended is that the episodic feeling is a metacognitive experience. It leads to a two-tiered account of episodic remembering, whose general form is the following:⁴

When a subject S is remembering a past event:

- i. S has an experience that represents the remembered event by involving an informational state originating in S’s past experience.
- ii. S has a distinctive metacognitive feeling targeted at this experience.

The experience at the first tier (i) is the content-providing experience. It represents only what is remembered, namely a past event, but it does so first-handedly in the sense that it hinges on an informational state that derives from the subject’s past experience of the event. First-handedness is a complex past-oriented relational property of the content-providing experience, which is not represented or otherwise accessible to the subject at that level. What the second tier (ii) provides is the *sense* of first-handedness, in the form of an episodic feeling. The episodic feeling does not itself carry information about the remembered event but provides a “comment” on the pedigree of the experience at the first tier, namely that the latter involves an informational state that in fact derives from, or has been constructed entirely or mostly out of, materials from one’s own past experience.

2. Two versions of the two-tiered account

Option C might seem to raise a kind of Euthyphro dilemma. Consider the content-providing experience. When it is accompanied by the episodic feeling, it feels like an episodic memory. But does it feel episodic because it is episodic, or is it episodic because it feels episodic? Two opposite views can be distinguished. On the *ontological view*, the content-providing experience is episodic in virtue of facts independent of the episodic feeling. Among them is the fact that the content-providing experience is first-hand. The job of the episodic feeling is to reveal the episodicity of the content-providing experience, which otherwise would be phenomenologically silent. In contrast, on the *experiential view*, the content-providing experience is episodic only because it is accompanied by the episodic feeling. In the absence of the latter, there is no episodic memory.⁵

Note that both views are compatible with the claim that the content-providing experience is an *imagining*, and that what is remembered is always presented to us via our imagination. When we are remembering a past event, we imagine (something about) the event while having an episodic feeling, which is why we report the phenomenology of memory rather than mere imagination. Moreover, the two views agree that the relevant imagining is not essentially an episodic memory. They disagree on what makes the imagining episodic. On the ontological view, the imagining is episodic because it has specific relational properties, which makes it

⁴ See also Dokic (2014). Early proponents of two-tiered accounts of memory include John Locke and William James. According to Locke, memory is the capacity of the mind “[...] to revive perceptions, which it has once had, with this additional perception annexed to them, that it has had them before” (Locke, 1997, p. 148). In the same vein, James writes that “[...] memory proper [...] is the knowledge of an event, or fact [...] with the additional consciousness that we have [...] experienced it before” (James, 1890, p. 648).

⁵ The experiential view is congenial to the claim that episodicity of memory shows up only at retrieval (see Klein, 2013).

first-hand. On the experiential view, it is episodic because it is accompanied by an episodic feeling – there are no independent facts about episodocity.⁶

If the episodic feeling is taken seriously as a metacognitive experience, the experiential view cannot be sustained. As a metacognitive experience, the episodic feeling should arise from *monitoring mechanisms* whose function is to evaluate the remembered information carried at the first tier. A plausible suggestion is that the relevant monitoring is a special case of what psychologists call ‘source-monitoring’ (Johnson, Hashtroudi, & Lindsay, 1993; Simons, Garrison, & Johnson, 2017). Source-monitoring enables the brain to discriminate between internally generated information and information that originated in the outside world. In the present case, what is discriminated is whether the currently processed information (corresponding to what is remembered) derives, perhaps via some internal reconstructive processes, from one’s own past experience. When the source of this information is evaluated as externally generated in the past, for instance via perception, we may feel like we are remembering something from our past experience. When it is not, we may feel more like imagining something that may or may not correspond to something we have actually experienced.

A distinction can be drawn between two kinds of source-monitoring. First, source-monitoring can be *attitude-dependent*, i.e., sensitive to the attitude of the mental episode at the first tier, independently of its content (for instance, whether it is a perception, a memory, an imagining, etc.). Second, source-monitoring can be *attitude-independent*, i.e., sensitive to intrinsic or contextual properties of the relevant informational state, independently of the attitude within which it is embedded (if there is one).

Here is an example of attitude-independent *reality* monitoring. Consider the phenomenon of constrained imagination, or ‘imagining with constraints’, i.e., cases in which “[...] imagination can help us to discover truths about the real world” (Kind & Kung, 2016, p. 2).⁷ For instance, when we visually imagine that our newly bought sofa will not fit through the entrance door of our flat, what we imagine *feels real*, even though imagination as an *attitude* is not reality-conducting.⁸ What is monitored in this case is whether what is imagined is correct, independently of the fact that it is imagined.

Now if the content-providing experience at the first tier is a genuine episodic memory, endowed with attitudinal feature that imaginings lack, attitude-dependent source monitoring can give rise to an episodic feeling. What is monitored in this case is the intrinsic episodocity of the content-providing experience.

Alternatively, if the content-providing experience is an imagining, attitude-dependent monitoring would be of no use to evaluate whether what is imagined corresponds to a first-hand informational state. We may imagine all sorts of content, and the mere fact that we imagine a content does not tell us anything about whether and how it is anchored to reality. However, the episodic feeling can rest on monitoring the informational state that provides the imagining with its content, independently of its embedding in the attitude of imagination. Even in this case, we see why the first tier cannot be ‘just’ an imagining. Even if it turns out that any memory that feels episodic involves an imagining, there must be more cognitive conditions at the first tier, including whatever relational properties of the content-providing experience are monitored at the second tier.

To sum up, the two-tiered account is best associated with the ontological view, whether the content-providing experience is counted as an intrinsic episodic memory or as an imagining with specific relational properties. The episodic feeling is not a mere epiphenomenon, but the manifestation of a genuine metacognitive competence. As a competence, of course, it can fail in various ways. The episodic feeling can be experienced with respect to an informational state that is not first-hand (false positive), and an informational state can be first-hand without being monitored as such at the metacognitive level (false negative). However, in the good cases, the first tier involves a (possibly complex) mental condition that is essentially an episodic memory, and that is monitored at the second tier in the form of an episodic feeling.

3. Episodic cues

In general, monitoring mechanisms are causally sensitive to local and present *cues*, whose detection can generate a specific metacognitive feeling. Cues themselves need not be personally accessible to the subject. Cues are also partial. Monitoring mechanisms are based on unconscious heuristics rather than demonstrative

⁶ See Michaëlien (2016) and Hopkins (2018) for two views that tie memory tightly to imagination. It is not clear that either of them would endorse the experiential view as described here.

⁷ See also Kind (2016) and Arcangeli and Dokic (2018).

⁸ Of course, our imagining draws on various memories, including our memory of the size of our entrance door, but we do not *remember* that the sofa will not fit through the door (we have never tried).

inferences. Affective metacognition is cheap and dirty. This is especially the case for memory, since no present cues can *entail* that the subject has a genuine memory.

In addition, cues are context-dependent. First, whether the detection of a cue gives rise to a feeling depends on the subject's expectations. Consider the feeling of familiarity, which seems to be based on the detection of *processing fluency*, or the ease with which information is processed in some part of the brain (Oppenheimer, 2008). Now the feeling of familiarity is typically more salient when detected processing fluency is unexpected (Whittlesea & Williams, 2001). Similarly, the episodic feeling is typically more salient when the situation is not expected to trigger episodic memories, e.g., when a seemingly banal object such as a madeleine evokes highly personal memories.

Second, a given feeling can be associated with quite different feeling-based judgements. The feeling generated from the detection of processing fluency can give rise to spontaneous judgments about 'truth', 'familiarity', 'frequency', 'easiness', 'fame', 'aesthetic preference' (Schwarz, 2018), or perhaps even (in special cases) 'novelty' (Unkelbach, 2006). In general, a given feeling gives rise to a spontaneous judgment only relative to the subject's background knowledge. For instance, knowledge that a painting has been shown repeatedly to a subject can block the move from a feeling of fluency to a spontaneous positive aesthetic judgment (Reber, 2012; Westerman, Lanska, & Olds, 2015). Similarly, the episodic feeling at least sometimes depends on what the subject knows about the current task, for instance whether it concerns memory or mere identification of the stimulus (Whittlesea & Leboe, 2000; Perrin et al., 2020).

Thus, metacognitive feelings seem to have contents only relative to an interpretation, determined by the subject's expectations, whether low-level or high-level (such as background beliefs). Their intentionality is then derived rather than intrinsic.⁹ It does not follow that their interpretation is *arbitrary* and that any metacognitive feeling can be associated with any spontaneous judgement. In other cases of feelings, the interpretation may be arbitrary, as in Wittgenstein's example of the water diviner.¹⁰ The case of metacognitive feelings is clearly different. Here, the interpretation is constrained by the cognitive context, and more precisely by low-level control strategies.

Consider the feeling of knowing the answer to a question. It can give rise to the feeling-based judgement 'I know the answer to this question'. Why is it interpreted as a feeling about one's knowledge rather than, say, the feeling that it is going to rain? The feeling follows low-level control strategies, such as the subject's trying to retrieve the answer to the question. As Koriat, Ma'ayan, and Nussinson (2006) suggested, the feeling of knowing can rest on monitoring one's trying, i.e., it can involve what they call 'control-based monitoring'. In general, the interpretation of a metacognitive feeling is constrained by the requirement of *harmony* between low-level control strategies and higher-level control strategies initiated from the feeling-based judgments. If the feeling of knowing were associated with the spontaneous judgement that it is going to rain, there would be a discrepancy between the process of trying to remember a name and the deliberate action of taking one's umbrella if one's desire is to stay dry.

Even though feeling-based judgements extend much beyond the cues that trigger the relevant monitoring mechanisms, many of them are *reliable* in the minimal sense that they result from mechanisms that produce true beliefs more often than false ones (Koriat, 2007). Feelings of knowing, for instance, indicate that we know something relevant to the current task, even though the underlying cue might just be processing fluency. We should draw a distinction between the cues that are detected at the subpersonal level and what the corresponding feeling *tracks* at the personal level. The former are always local, present, partial and context-dependent, but the latter need not be.

In the case of the episodic feeling (in its most general sense, which includes but goes beyond the causality component), the detected cues might include the level of detail of spatiotemporal and qualitative information, the presence of 'gist' information, bodily and affective information, and whether the subject is searching for extra information. All these are of course present cues, but the function of the episodic monitoring mechanisms is to enable the subject to track partly external and temporally extended processes, having to do with the first-handedness of the current informational state. The episodic feeling can thus be associated with psychologically spontaneous beliefs, which include not only the belief that we have had a certain experience (or experiences) in the past but also, if we are articulate enough, the more sophisticated

⁹ See Dokic (2012), and the analogous claim about intuitions in McGahhey and Van Leeuwen (2018). For the view that intuitions are a special kind of epistemic feelings, see Loew (2019).

¹⁰ In his *Blue Book*, Wittgenstein (1958) describes a water diviner who finds water underground by feeling tingling sensations in his hand. The interpretation of these sensations as indicating the occurrence of water is arbitrary since the very same sensations might be interpreted in completely different ways in other contexts.

belief that our memory derives from this experience (or these experiences) without the essential intervention of testimony or later personal-level inference.

4. Episodic feelings and episodic feelings of knowing

As far as I know, there is presently no direct psychological evidence for the existence of the episodic feeling. However, there is evidence that feelings of knowing come in *two kinds*, corresponding to the distinction between semantic and episodic memory (Souchay, Moulin, Clarys, Tacconat, & Isingrini, 2007; Souchay & Moulin, 2009). The feeling of knowing is the metacognitive experience that we can retrieve some information from memory, even if we presently seem stuck, as in the familiar tip-of-the-tongue experience. It appears that some feelings of knowing have an episodic flavor. In other words, it can feel to us as if the retrievable memory concerned some event in our personal past, so that if it were retrieved, it would feel episodic. Real dissociations suggest that episodic feelings of knowing are supported by specific psychological mechanisms, different from the mechanisms underlying semantic feelings of knowing. In Dokic (2014), I suggested that the episodic feeling be construed as an episodic feeling of knowing.

Perrin (2018) and Perrin et al. (2020) have recently claimed that the characterization of the episodic feeling as an episodic feeling of knowing is misguided. They note that episodic feelings of knowing concern our cognitive *capacities*, and in particular our capacity to remember something we cannot presently make explicit, as in the familiar and annoying ‘tip-of-the-tongue’ experience. In contrast, according to them, episodic feelings should concern our cognitive *achievements*, i.e., representations that have already been produced.

Consider a simple example. I am at a conference in Milan and (at ‘t1’) I seem to recognize someone in the audience: ‘I know this woman, but where in hell did I meet her?’. Suddenly (at ‘t2’), I remember: this woman is my Parisian dentist. I have mental images of her drilling my tooth, while I damage the armrests of my chair. There is certainly a mental Gestalt switch from ‘t1’ to ‘t2’. At ‘t1’ I have a feeling of knowing of the episodic kind: I am not remembering any event involving the woman in the audience, but I feel I could retrieve such a memory and probably other, related memories. At ‘t2’, my feeling of knowing changes and becomes, or is replaced by, an episodic feeling: I am now remembering where and when I met the woman, making my tip-of-the-tongue experience suddenly go away.

Here is how we can respond to the worry raised by Perrin and his co-authors. First, there is a cognitive achievement already at ‘t1’. It is true that I cannot be said to retrieve any memory *about* the person, but there is a sense in which I remember the person herself. Second, there is a cognitive capacity at stake at ‘t2’ too. The episodic feeling comes with the sense (veridical or not) that *more* information is available, that I can retrieve memories of additional events and things belonging to the relevant past period of my life. This ‘sense of availability’ is one feature that distinguishes typical cases of episodic memory from typical cases of semantic memory. There is always something like a feeling of knowing at stake in any episodic memory, even when the content of the memory is made fully explicit. Absent the sense of availability, our memory will feel more like a semantic memory. This is what happens when our memories age and get ‘semanticized’, as the subjective sense of recollecting is prone to fade and decay over time (Piolino, Desgranges, & Eustache, 2009).

Perrin et al. (2020) level another objection to the characterization of the episodic feeling as an episodic feeling of knowing. They complain that an episodic feeling of knowing “[...] cannot be *identified* with auto-noetic consciousness simply because the former *results* from detection of the latter” (Perrin et al., 2020, p. 5). Souchay et al. (2007) focus on cases in which we have *partial information* about what we try to remember, and comment that this information is “[...] akin to the contextual information, feelings, and self-awareness characteristic of Tulving’s concept of auto-noetic consciousness” (Souchay et al., 2007, p. 772). Here are two responses to this objection. First, the cues detected by the episodic monitoring mechanisms might be subpersonal features of retrieval processes, and as such might not entail (even partial) auto-noetic consciousness. Second, as in cases of semantic feelings of knowing, other cues, which do not depend on retrieval processes or the possession of partial information, might be available to be detected and result in episodic feelings of knowing.

In a nutshell, the episodic feeling is not the same as the episodic feeling of knowing, but it belongs to the same family of metacognitive experiences as the latter. The same episodic capacity is involved in both cases, although in different ways. The differences might concern the number and quality of the underlying episodic cues, and whether the content of the relevant memory is fully explicit or not.

5. Feelingless memories

On the ontological view, the episodic feeling tracks either intrinsic or relational features that the content-providing experience independently possesses. We have just seen that the episodic feeling can occur without any content-providing experience at the first tier, as a mere episodic feeling of knowing. In this case, the episodic feeling tracks (thanks to attitude-independent source-monitoring) the first-handedness of some unconscious informational state.¹¹ Now if the ontological view is correct, an episodic memory at the first tier should be able to occur without the episodic feeling. Can we really make sense of the latter dissociation, and acknowledge the existence of feelingless episodic memories?

Consider Martin and Deutscher's (1966) famous example in which a character paints a house that unbeknownst to him perfectly matches his childhood house. There is a sense in which the painter's imagining of the house as he paints it is controlled by the past. His imagining seems to be first-hand and hinge on an informational state that in fact originates in his own past experience. (We can assume that he has not been shown photographs of the house or was otherwise told about it.) Still, the painter does not report any phenomenology of memory. Rather, he would describe himself as freely imagining a house.

Let us compare Martin & Deutscher's fictional but intuitively possible scenario with a real pathological case, involving patient R.B. as quoted here by Klein and Nichols (2012):

I can picture the scene perfectly clearly [...] studying with my friends in our study lounge. I can 'relive' it in the sense of re-running the experience of being there. But it has the feeling of imagining, [as if] re-running an experience that my parents described from their college days. It did not feel like it was something that really had been a part of my life. (Klein & Nichols, 2012, p. 686).

Clearly, R.B. lacks the full-blooded phenomenology characteristic of episodic memory. Moreover, as with the painter, R.B. reports a phenomenology of imagination. The experience of R.B. might be described as a local case of derealization, restricted to episodic memory. Like him, derealized subjects

[...] often complain that memories feel as if they really didn't happen to them. In other words, autobiographic memories retain their factual aspect (i.e. their informational load) but seem devoid of the distinct feeling that accompanies the act of remembering (Sierra, 2009, p. 142).

How should we describe these cases within a two-tiered account? First, it is plausible that the painter has an intact metacognitive competence. He has retained the general *ability* to monitor the source of his informational states and generate an episodic feeling. The question is why he does not exercise this ability in the described case. Here the case is underdetermined. On the one hand, if the painter is able to track the source of information underlying his imagining, because of the present availability of episodic cues, but fails to do so, he makes a metacognitive mistake. It follows that it is legitimate to ascribe to him an episodic memory in the absence of an episodic feeling. Suppose that the painter suddenly realizes that he is painting his childhood house. He may truly say something like 'I thought I was imagining a house, but I was remembering it all along!'

On the other hand, if the painter is unable to track the source of information because the relevant cues are absent or deeply inaccessible to his monitoring mechanisms, it is less clear that it is legitimate to ascribe to him a memory at the personal level, rather than a deeply unconscious causal connection between the content of his present imagining and the contents of his childhood experiences. In this case, even if the painter's imagining is first-hand, the subject cannot be blamed from making a metacognitive mistake because of the unavailability of present episodic cues.

The case of R.B. is different because it might be argued that unlike the painter, R.B. lacks the relevant metacognitive competence. Here, the absence of the full-blooded phenomenology of episodicity is due to a competence deficit rather than a performance error. Thus, he is not committing any metacognitive mistake. Still, one might claim that if he could restore his metacognitive competence, he would be able to track the source of information underlying his present experiences and generate the corresponding episodic feelings. Perhaps, then, it is also legitimate to ascribe to him genuine episodic memories in the absence of episodic feelings.

Another interpretation of R.B.'s case is that he has lost the feeling of ownership of his memories but retained the sense of first-handedness. To the extent that he can still distinguish his memories from mere

¹¹ As we have seen, the relevant source-monitoring mechanisms are heuristic and not failproof. Thus, it is also possible that the episodic feeling accompanies experiences that are not first-hand, such as "mere" imaginings. In such cases we may enjoy 'false' episodic memories. (Thanks to Dustin Stokes for suggesting that I should clarify this point.)

imaginings, he might be said to have some resilient phenomenology of episodicity, at least as far as the causality component is concerned. If this interpretation is correct, R.B.'s case fails to illustrate the independence of episodic memories from episodic feelings after all.

Conclusion

In this essay I have tried to evaluate the prospects of a two-tiered account of episodic remembering. On this account, the phenomenology characteristic of episodic remembering is *extrinsic* to the memory state itself. When we have a memory, it feels episodic only if it is properly monitored at the metacognitive level. However, an episodic memory can be attributed to a subject in the absence of an episodic feeling. The memory itself can be a mere unconscious mental condition, as in the case of episodic tip-of-the-tongue experiences, or its content can be transparent to the subject via a conscious imagining.

Even though we still lack direct psychological evidence for the existence of episodic feelings, a case can be made for the view that they belong to the same family of metacognitive experiences as episodic feelings of knowing. Thus, recent studies of the latter can cast light on the former. Overall, the hypothesis that episodic feelings are metacognitive experiences squares well with a general theory of metacognition. More research is certainly needed to have a full assessment of the two-tiered account of episodic memory. On the empirical side, we must know more about the nature of episodic cues and the corresponding monitoring mechanisms. On the analytic side, we must strive for a better understanding of what episodic feelings exactly track, as the notion of first-handedness is intuitive but admittedly in need of further clarification.¹²

References

- Arango-Muñoz, S., & Michaelian, K. (2014). Epistemic feelings, epistemic emotions: review and introduction to the focus section. *Philosophical Inquiries*, 2(1), 97-122.
DOI: <http://doi.org/10.4454/philing.v2i1.79>
- Arcangeli, M., & Dokic, J. (2018). Affective memory: a little help from our imagination. In K. Michaelian, D. Debus & D. Perrin (Eds.), *New Directions in the Philosophy of Memory* (p. 139-157). New York, NY: Routledge.
- Beran, M. J., Brandl, J., Perner, J., & Proust, J. (Eds.). (2012). *Foundations of metacognition*. Oxford, UK: Oxford University Press.
- Conway, M. A. (2007). Remembering: a process and a state. In H. L. Roediger III, Y. Dudai & S. M. Fitzpatrick (Eds.), *Sciences of Memory Concepts* (p. 237-242). Oxford, UK: Oxford University Press.
- Dokic, J. (2001). Is memory purely preservative?. In C. Hoerl & T. McCormack (Eds.), *Time and Memory: Issues in Philosophy and Psychology* (p. 213-232). Oxford, UK: Clarendon Press.
- Dokic, J. (2012). Seeds of self-knowledge: noetic feelings and metacognition. In M. J. Beran, J. Brandl, J. Perner & J. Proust (Eds.), *Foundations of Metacognition* (p. 302-321). Oxford, UK: Oxford University Press.
- Dokic, J. (2014). Feeling the past: a two-tiered account of episodic memory. *Review of Philosophy and Psychology*, 5(3), 413-426. DOI: <http://doi.org/10.1007/s13164-014-0183-6>
- Fernández, J. (2019). *Memory: a self-referential account*. New York, NY: Oxford University Press.
- Hoerl, C. (2001). The phenomenology of episodic recall. In C. Hoerl & T. McCormack (Eds.), *Time and Memory* (p. 315-338). Oxford, UK: Oxford University Press.
- Hopkins, R. (2018). Imagining the past: on the nature of episodic memory. In F. Macpherson & F. Dorsch (Eds.), *Perceptual Imagination and Perceptual Memory* (p. 46-71). Oxford, UK: Oxford University Press.
- James, W. (1890). *The principles of psychology*. London, UK: MacMillan and Co.
- Johnson, M. K., Hashtroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin*, 114(1), 3-28. DOI: <http://doi.org/10.1037/0033-2909.114.1.3>
- Kind, A. (2016). Imagining under constraints. In A. Kind & P. Kung (Eds.), *Knowledge Through Imagination* (p. 145-158). Oxford, UK: Oxford University Press.

¹² Thanks to Margherita Arcangeli, Denis Perrin, André Sant'Anna and Dustin Stokes for written comments on an earlier version of this article. More distant ancestors of it have been presented to audiences at the University of Grenoble, at Washington University in St. Louis, and at the Bochum-Grenoble Memory Colloquium. I would like to thank them and the organizers of these events for helpful feedback. The research is supported by the ANR-17-EURE-0017 FrontCog and the ANR-10-IDEX-0001-02 PSL.

- Kind, A., & Kung, P. (Eds.). (2016). *Knowledge through imagination*. Oxford, UK: Oxford University Press.
- Klein, S. B. (2013). Making the case that episodic recollection is attributable to operations occurring at retrieval rather than to content stored in a dedicated subsystem of long-term memory. *Frontiers in Behavioral Neuroscience*, 7(3), 1-14. DOI: <http://doi.org/10.3389/fnbeh.2013.00003>
- Klein, S. B., & Nichols, S. (2012). Memory and the sense of personal identity. *Mind*, 121(483), 677-702. DOI: <http://doi.org/10.1093/mind/fzs080>
- Koriat, A. (2007). Metacognition and consciousness. In P. D. Zelazo, M. Moscovitch & E. Thompson (Eds.), *The Cambridge Handbook of Consciousness* (p. 289-325). Cambridge, UK: Cambridge University Press.
- Koriat, A., Ma'ayan, H., & Nussinson, R. (2006). The intricate relationships between monitoring and control in metacognition: lessons for the cause-and-effect relation between subjective experience and behavior. *Journal of Experimental Psychology General*, 135(1), 36-69. DOI: <http://doi.org/10.1037/0096-3445.135.1.36>
- Locke, J. (1997). *An essay concerning human understanding* [1690/1694]. London, UK: Penguin Books.
- Loev, W. (2019). *Intellectual affectivism: intuition experiences are epistemic feelings* (PhD thesis, Philosophy Université Paris Sciences et Lettres). Recovered from <https://tel.archives-ouvertes.fr/tel-03159784/document>
- Martin, C. B., & Deutscher, M. (1966). Remembering. *Philosophical Review*, 75(2), 161-196. DOI: <http://doi.org/10.2307/2183082>
- McGahhey, M., & Van Leeuwen, N. (2018). Interpreting intuitions. In J. Kirsch & P. Pedrini (Eds.), *Third-Person Self-Knowledge, Self-Interpretation, and Narrative* (p. 73-98). [S.l.]: Springer.
- Michaelian, K. (2016). *Mental time travel: episodic memory and our knowledge of the past*. Cambridge, MA: MIT Press.
- Oppenheimer, D. M. (2008). The secret life of fluency. *Trends in Cognitive Sciences*, 12(6), 237-241. DOI: <http://doi.org/10.1016/j.tics.2008.02.014>
- Perrin, D. (2018). A case of procedural causality in episodic recollection. In K. Michaelian, D. Debus & D. Perrin (Eds.), *New Directions in the Philosophy of Memory* (p. 33-51). New York, NY: Routledge.
- Perrin, D., Michaelian, K., & Sant'Anna, A. (2020). The phenomenology of remembering is an epistemic feeling. *Frontiers of Psychology*. DOI: <https://doi.org/10.3389/fpsyg.2020.01531>
- Piolino, P., Desgranges, B., & Eustache, F. (2009). Episodic autobiographical memories over the course of time: cognitive, neuropsychological and neuroimaging findings. *Neuropsychologia*, 47(11), 2314-2329. DOI: <http://doi.org/10.1016/j.neuropsychologia.2009.01.020>
- Reber, R. (2012). Processing fluency, aesthetic pleasure, and culturally shared taste. In A. P. Shimamura & S. E. Palmer (Eds.), *Aesthetic Science: Connecting Minds, Brains, and Experience* (p. 223-49). Oxford, UK: Oxford University Press.
- Recanati, F. (2007). *Perspectival thought*. Oxford, UK: Blackwell.
- Schwarz, N. (2018). Of fluency, beauty, and truth: inferences from metacognitive experiences. In J. Proust & M. Fortier (Eds.), *Metacognitive Diversity: An Interdisciplinary Approach* (p. 25-46). Oxford, UK: Oxford University Press.
- Sierra, M. (2009). *Depersonalization: a new look at a neglected syndrome*. Cambridge, MA: Cambridge University Press.
- Simons, J. S., Garrison, J. R., & Johnson, M. K. (2017). Brain mechanisms of reality monitoring. *Trends in Cognitive Sciences*, 21(6), 462-473. DOI: <http://doi.org/10.1016/j.tics.2017.03.012>
- Souchay, C., & Moulin, C. J. A. (2009). Memory and consciousness in Alzheimer's disease. *Current Alzheimer Research*, 6(3), 186-195. DOI: <http://doi.org/10.2174/156720509788486545>
- Souchay, C., Moulin, C. J. A., Clarys, D., Tacconat, L., & Isingrini, M. (2007). Diminished episodic memory awareness in older adults: evidence from feeling-of-knowing and recollection. *Consciousness and Cognition*, 16(4), 769-784. DOI: <http://doi.org/10.1016/j.concog.2006.11.002>
- Tulving, E. (1985). Memory and consciousness. *Canadian Psychology/Psychologie Canadienne*, 26(1), 1-12. DOI: <http://doi.org/10.1037/h0080017>
- Tulving, E. (2002). Chronesthesia: conscious awareness of subjective time. In D. T. Stuss & R. T. Knight (Eds.), *Principles of frontal lobe function* (p. 311-325). Oxford, UK: Oxford University Press.

- Unkelbach, C. (2006). The learned interpretation of cognitive fluency. *Psychological Science*, 17(4), 339-345. DOI: <http://doi.org/10.1111/j.1467-9280.2006.01708.x>
- Westerman, D. L., Lanska, M., & Olds, J. M. (2015). The effect of processing fluency on impressions of familiarity and liking. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 41(2), 426-438. DOI: <http://doi.org/10.1037/a0038356>
- Whittlesea, B. W. A., & Leboe, J. P. (2000). The heuristic basis of remembering and classification. *Journal of Experimental Psychology: General*, 129(1), 84-106. DOI: <http://doi.org/10.1037/0096-3445.129.1.84>
- Whittlesea, B. W. A., & Williams, L. D. (2001). The discrepancy-attribution hypothesis: II. Expectation, uncertainty, surprise, and feelings of familiarity. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 27(1), 14-33. DOI: <http://doi.org/10.1037/0278-7393.27.1.14>
- Wittgenstein, L. (1958). *The Blue and Brown Books*. Ne York: Harper & Row.