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Vantage perspective during encoding: The effects on phenomenological memory characteristics

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ABSTRACT

The vantage perspective from which a memory is retrieved influences the memory's emotional impact, intrusiveness, and phenomenological characteristics. This study tested whether similar effects are observed when participants were instructed to imagine the events from a specific perspective. Fifty student participants listened to a verbal report of car-accidents and visualized the scenery from either a field or observer perspective. There were no between-condition differences in emotionality of memories and the number of intrusions, but imagery experienced from a relative observer perspective was rated as less self-relevant. In contrast to earlier studies on memory retrieval, vantage perspective influenced phenomenological memory characteristics of the memory representation such as sensory details, and ratings of vividness and distancing of the memory. However, vantage perspective is most likely not a stable phenomenological characteristic itself. Implications and suggestions for future research are discussed.

1. Introduction

Memories can either be retrieved from a field perspective (visualizing the scenery through your own eyes) or from an observer perspective (visualizing the scenery through the eyes of an observer) (e.g., Nigro & Neisser, 1983). The vantage perspective from which memories are retrieved influences their emotional impact (Vella & Moulds, 2014). Generally, the observer perspective has been found to reduce, whereas field perspective enhance, the emotionality of memories (e.g., Berntsen & Rubin, 2006). This regulatory aspect of vantage perspective is particularly evident in clinical disorders such as depression and posttraumatic stress disorder (PTSD). In PTSD, the observer perspective has been suggested to be an avoidance strategy to dampen emotions associated with trauma memories (Kenny & Bryant, 2007). Studies on trauma memories have also indicated that the vantage perspective from which memories are retrieved can change the accessibility and vividness of these memories (Sutin & Robins, 2010).

Intrusive memories, which are often experienced in clinical groups (including individuals with PTSD), are highly accessible and vivid. Intrusions are memories that can be defined as "multi-modal mental pictures of highly detailed sensory impressions of an event including sights, sounds, feelings, and bodily sensations and come into consciousness uncontrollable

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and unwanted" (Krans, Näring, Holmes, & Becker, 2009, p. 426). According to the Self Memory System theory (SMS theory; Conway & Pleydell-Pearce, 2000), self-relevance increases memory accessibility. If the observer perspective creates more distance from our personal goals and self-image, memories recalled from this perspective should be rated as less self-relevant, resulting in less accessible memories. In line with this suggestion, some researchers have postulated that observer memories do not only have a distancing function but also a continuity function such that they maintain a coherent self-image (Libby & Eibach, 2002).

The vantage perspective that is adopted during retrieval also affects the phenomenological characteristics of the memory (McIsaac & Eich, 2002). That is, the characteristics of memory representations that are associated with the subjective, or phenomenological, experience of the memory. Naturally recalled memories retrieved from a field perspective tend to be higher in first-person account ("I", "me"), affective reactions, and physical sensations (McIsaac & Eich, 2002), vividness, coherence, accessibility, sensory details, emotional intensity, and time perspective and lower on distancing (Sutin & Robins, 2010). Memories that are retrieved from an observer perspective are typically higher in the extent to which people distance themselves from the memory, contain more spatial relations, contain more thoughts about the self, and more peripheral details, relative to field perspective memories (Brewer, 1996). We refer to these dimensions as (phenomenological) memory characteristics. According to the study by Sutin and Robins (2010), vantage perspective at retrieval is clearly associated with differences in memory characteristics but vantage perspective cannot determine what characteristics of the memory representation are retrieved.

To date, the effect of the vantage perspective adopted during encoding on the emotional impact and accessibility of memories, as well as memory characteristics, have not been explored. Yet, this is a clinically relevant line of investigation in the context of trauma as the tendency to adopt an observer perspective at encoding (i.e., during a traumatic event) is sometimes reported when individuals experience peri-traumatic dissociation (e.g., Cardenã & Spiegel, 1993). McIsaac and Eich (2004) found that almost half of the trauma victims in their study not only retrieved but also experienced their traumatic event from an observer perspective. In addition, there is evidence that peri-traumatic dissociation, which includes observer perspective experiences such as "I felt as though I was a spectator watching what was happening to me, as if I were floating above the scene or observing it as an outsider" is a strong predictor of PTSD (Ozer, Best, Lipsey, & Weiss, 2003). Also in experiments using the trauma film paradigm, dissociation was found to predict intrusion development (Hagenaars, van Minnen, Holmes, Brewin, & Hoogduin, 2008). If more is known about the effects of vantage perspective during encoding of traumatic events in general, more insights could be obtained regarding how vantage perspective might influence intrusion development in dissociation.

By manipulating perspective during encoding, we can investigate whether the phenomenological memory characteristics that are associated with field and observer perspectives, arise at encoding and remain stable over time, or whether the effects only act at recall, whereby the retrieval perspective determines which information is retrieved. Also, our study aimed to test whether the vantage perspective adopted during encoding influenced the emotions associated with the memory, memory characteristics, self-relevance of the memory, and memory intrusions.

Accordingly, using mental imagery, we manipulated vantage perspective from which participants imagined a stressful event when listening to a verbal report. Mental imagery was used because, in contrast to viewing a stressful film as an analogue to experiencing a trauma, imagery allows the experimental manipulation of the vantage perspective that participants adopt while encoding these images in memory. That is, we used imagery to create a relative field/observer perspective at the time of encoding the event. Furthermore, there are ethical restrictions around the use of stronger trauma-related imagery. Previous studies have shown that imagery of road traffic accidents induced similar levels of distress compared to real-life footage (Krans, Näring, Holmes, & Becker, 2010). Participants rated emotions, self-relevance, intrusions, and memory characteristics immediately after the imagery exercise (time 1), and again after one week (time 2).

2. Method

2.1. Participants

Fifty undergraduate students from the University of New South Wales (32 females) volunteered as participants. For ethical reasons, exclusion criteria were assessed with the M.I.N.I. which is a clinical diagnostic interview (Sheehan et al., 1998): panic attack, panic disorder (current/life time), PTSD (current/life time), major depressive episode (current/life time), social phobia, psychotic episode (current/life time). Further exclusion criteria were; blood phobia, history of fainting, and significant experience with road traffic accidents and were assessed with a brief questionnaire (Krans et al., 2009). Participants received course credit for their participation. All participants provided written informed consent prior to the experiment, but were kept naive with respect to the hypotheses. Participants' age ranged from 18 to 25 years (M = 18.79 years, SD = 1.53). The study was approved by the Human Research Ethics Advisory Panel – Behavioural (HREAP File no. 1917).

2.2. Materials

2.2.1. Verbal report

An auditory version of the trauma film paradigm (Hagenaars et al., 2008) was used as first developed by Krans et al. (2010). An auditory version was used because this allowed participants to use imagery, and thereby adopt a perspective