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Invited commentary on Brewin and Andrews (2016)

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### Abstract

Brewin and Andrews (2006) make many cogent observations on the state of knowledge about the development of false autobiographical beliefs and false recollections. Due to inconsistent use of terminology and imprecise definitions, the framework they propose does not clearly map onto the studies that are summarized; making the resulting estimates of the magnitude of effects across studies unconvincing. A singular focus on the development of 'full memories' is not explained, and the key role of autobiographical belief in influencing behavior is under emphasized. Furthermore the legal applications discussed are not well defined and are limited in scope. Fostering false belief or false imagery for events such as childhood abuse is unacceptable, whether or not suggested events come to be experienced as a vivid believed recollections.

Brewin and Andrews provide a review of several approaches to the study of the development of objectively false but believed recollections for autobiographical events. It is valuable to conduct systematic integrations of mature areas of research, and debate is important when examining questions of such obvious significance for individuals, helping professions, and legal systems. In our commentary, we discuss the strengths and limitations of their efforts.

### **Conceptual framework**

We are glad to see that the belief-recollection distinction that we have introduced and developed is given a central role in this assessment of false memory studies (Mazzoni & Kirsch, 2002; Mazzoni, Scoboria & Harvey, 2010; Scoboria, Mazzoni, Kirsch & Relyea, 2004; Scoboria et al, 2014). We termed this ‘autobiographical belief’ already (Mazzoni & Kirsch, 2002), so we can only be in agreement with the use of this terminology. We agree that the goal of clearly describing and distinguishing concepts that are relevant to identifying beliefs and memories is an important one (see Scoboria et al, 2014).

The concepts that the authors propose are certainly interesting. However, the elements included in their framework are not consistently defined. They first write that Brewer (1986) described three dimensions: belief that the episode was personally experienced by the self; presence of imagery; and confidence this imagery is a veridical record of the originally experienced episode. Shortly thereafter, they describe the three types of judgment as: belief that the event occurred; a corresponding recollective experience; and confidence in the veracity of that memory experience. At least five concepts are included by this point: autobiographical belief, imagery, confidence in veridicality of imagery, recollective experience, and confidence in memory experience. The authors also use the term ‘memory’ in numerous ways throughout the

paper. We have found the updated definition provided by Brewer (1996) more useful for distinguishing the components involved in the remembering of past events.

As the authors correctly state and as we emphasised earlier (e.g., Scoboria et al., 2004) and elsewhere, there are many instances in which people believe in the occurrence of events without accompanying recollection. We also agree that belief in occurrence is influenced by a wide variety of sources of information. But the authors should not then lump together all the ‘belief’ items as direct indicators of autobiographical belief when attempting to align their understanding of Brewer’s types of evaluation with the methods used in the studies. This is because there are a variety of metamemorial appraisals involved in remembering events.

In our most recent effort to organize these themes we have discussed the elements that contribute to the overarching experience of *remembering* a past event (Scoboria et al., 2014). Important contributors to remembering include (the list is not exhaustive): *autobiographical belief* (the degree to which an event is believed to have occurred to the self in the past), *recollection* (a combination of mental simulation for the event and the sense of reliving the past), and *belief in accuracy* (perception of the correspondence between a mental representation and a past state of affairs; see Rubin, 2006). Good evidence has amassed that these concepts are empirically distinct (e.g., Scoboria, Talarico & Pascal, 2015). Events can be believed to have occurred with or without associated imagery, and imagery associated with past events may or may not be experienced as recollected.

In a systematic meta-analytic review, it is preferable to have clearly articulated conceptual definitions that are then linked to specific measures used in studies. This is only partially achieved, because loosely defined concepts are applied to a body of studies, most of which were not designed to differentiate these elements. Reviews that seek to combine studies

that use widely varying metrics also have inherent limitations. The variability in measurement approaches in the literature is of course something the current authors can do little about, beyond suggesting methods that could be used in future studies (see Scoboria et al., 2016 for an example of a data driven approach to estimating the impact of suggestions across memory implantation studies on the formation of false beliefs and recollections).

### **The critical relevance of autobiographical belief in remembering events**

The authors do not discuss why they place such emphasis on the idea of ‘full memory’. Brewer (1986) does not link the components associated with remembering to the strength of these components. The strength of autobiographical belief and recollection associated with objectively true autobiographical events varies widely, and what amount of either is needed to be relevant to behavior is an empirical question. We have previously argued that autobiographical belief has a more influential role than recollection in changing other aspects of psychology. To provide but one example: in a previously published systematic review of what the authors term the ‘false feedback’ approach (not cited by the authors), Bernstein, Scoboria and Arnold (2015) conducted a mega-analysis of eight studies in which false feedback was provided about childhood food experiences. They found that the development of false belief mediated the relationship between providing the suggestion and changes in suggestion-related attitudes and behavioral intentions. Furthermore, the development of recollection did not add additional variance.

Remembered events tend to influence behavior when they are believed to be genuine, with or without associated recollection.

### **Use of language by participants**

The authors use observations previously made in the literature to conclude that some memorial reports judged to be recollections by observers may not be based on true recollections. This is indeed sometimes the case. What they do not consider is that some events that are subjectively experienced as recollected may not be perceived by observers as such. Both of these outcomes are reported in Otgaar, Scoboria and Smeets (2014). The issue of miscommunication about the subjective basis of memory reports runs in both directions. This observation cannot solely be used to reduce estimates of memory formation rates.

### **Potential to identify moderators**

The authors adopt the curious logic of usefully observing moderators that are associated with the magnitude of effects, but then dismissing them when making summary statements. A systematic documentation of differences between studies and study conditions, with estimates of the size of effects for factors that are associated with lesser or higher likelihood of false belief and false recollection, would be more illuminating.

For example, event plausibility is one well-established moderator. It is established that events that are viewed as unlikely in the population and/or subjectively extremely low in perceived plausibility are less likely to develop into false beliefs, and telling people that events are implausible, not surprisingly inhibits memory formation (Pezdek & Blandon-Gitlin, 2006; Scoboria, Mazzoni, Jarry, Shapero, 2012). However, plausibility appraisals are easily increased. Doing so directly influences the formation of false beliefs, and indirectly sets the stage for the generation of mental simulations that may be misattributed as recollections (Mazzoni, Loftus and Kirsch, 2001). We also know that a substantial number of people view unremembered childhood abuse as plausible (Rubin & Berntsen, 2007; Pezdek & Blandon-Gitlin, 2009).

### **What legal situations are the authors contemplating?**

It is not clear to which particular legal situations or issues the authors intent to direct their final comments. They do not address the legal situation in which a therapist has committed malpractice by systematically pressuring clients to recover memories of abuse. By placing too great an emphasis on ‘full memory’, the authors overlook the serious implications of the development of any degree of false belief or recollection for abuse. Is it acceptable to encourage a small amount of false belief in abuse? Is it not problematic when someone develops moderately vivid images of abuse? Fostering any false belief or false imagery for events such as childhood abuse is unacceptable.

The literature on individuals who retract false memory claims shows that the factors and processes involved extend beyond recollection (Ost & Nunkoosing, 2010). Some individuals do claim they came to experience a believed recollection. Others describe coming to believe the event but deny ever recollecting it; yet still choose to act in significant ways based on the belief. Adopting even a weak belief can impact individuals, and foster non-trivial change in self-views (as a victim), in the views of others (as an abuser), and changes in social behavior (avoiding people, confronting family, bringing legal charges). We are not describing reports at the upper end of belief and recollection scales here. We acknowledge that clinicians have a professional challenge to remain sensitive and supportive to the experiences that clients bring; but at the same time to not foster, for example, a potentially false sense of victimhood.

### **Additional comments**

The midpoint of the scale has been a topic of debate for decades in the literature and used by many to assess false memories (just two examples, Read, 1996; Lewandowsky, Stritzke, Oberauer & Morales, 2005). Indeed most people who change as a function of the manipulation do not move all the way up the scale (e.g. Mazzoni, Loftus, Seitz, Lynn, 1999). However this

does not indicate that people are *not* influenced by the manipulation, as the authors seem to imply. The increase is typically statistically meaningful in these studies, with a majority showing increases in belief, and a notable minority showing increases in recollection.

These studies also involve minor and rather rapid manipulations. They do not involve many hours of interviews and repetitions and feedback, as happens at times in investigative interviews or during therapies. In a case examined by the second author, for example, a woman came to develop a series of intricately crafted false memories of sexual abuse from many years previously, that were so full of details that they resembled memories of events that happened a few hours before. In examining the therapy reports it became clear that they were the painstaking product of years of intervention, using dreams and triggered images as starting points and developing little by little into an elaborated set of interconnected images. For example, from an initial image of an inverted V shape, working daily in therapy, she eventually developed an image of a cape, and over time added to it other elements that were triggered by the therapist's questions, to develop the image of a priest. Thus, even minimal levels of suggestion or other forms of social intervention are sufficient to lead to changes in belief due that over time can develop into strongly held beliefs, vivid imagery, and even richly elaborated false recollections.



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