

Believing is seeing

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VALORISATION ADDENDUM

Relevance

In the first part of this dissertation, I have examined the relationship between memory and behavior. Specifically, I have demonstrated that true and false memories can have both positive and negative behavioral consequences. This work is of relevance to the legal field, where eyewitness testimony relies to a large degree on human memory. As the first few chapters in this dissertation have demonstrated, interrogative and interview protocols can be made in accordance with how memory functions, e.g. by eliminating suggestive questions. Specific regulations and laws (especially in China) can be made to protect eyewitness memories from misinformation. For instance, there are no specific rules in regulating eyewitness identification processes in the Criminal Procedure Law of China. Data show that 97% of the identifications in China are not carried out by investigators who are blind to the specifics of the case, which changes the confidence that witnesses have in their identification (i.e., the post-identification feedback effect) and also increases the risk of misinformation being transmitted to the eyewitness. Specific rules should be made to prevent this, such as that the identification should be hosted by investigators who are blind to the case.

Furthermore, the current dissertation investigated the roles of two memory components-- autobiographical belief and recollection--in impacting behavior. I found that belief, not recollection, impacted various types of behavior such as problem solving, decision making and food preferences. Undoubtedly, this conclusion can shed light on situations where human memory is involved, including the legal field and the clinical field. Understanding and recognizing the role of autobiographical belief can help discriminate belief from recollection in eyewitness reports. The research results can also help develop therapeutic procedures aimed at altering beliefs in patients with trauma in order to ease their symptoms. For example, intrusive memory is a typical symptom experienced by patients with trauma. This dissertation points out possibilities that changing belief in trauma memory might affect beliefs in intrusive memories.

Target groups

This dissertation examined various behavioral and cognitive consequences of autobiographical belief and recollection, so the results of this dissertation are relevant to various groups of people. Chapter 2 reviewed Chinese cases of eyewitness misidentifications and how false memories may play a role in the Chinese legal system. Chinese policy makers and legal professionals including the police, lawyers, and judges may use this knowledge to understand the malleability of eyewitness memories, to design proper investigative and interview protocols that lower chances of memory distortions, and to make appropriate amendments (e.g., taking into account the reliability of memory when collecting eyewitness evidence) to certain articles in the Criminal Procedure Law in order to protect eyewitnesses' memories.

The results obtained in this dissertation have the potential to benefit patients and clinical psychologists as well. Chapters 4, 5 and 6 found that by changing one's belief (e.g., about a negative autobiographical event), people were no longer impacted by past events. For people who are suffering from trauma, this conclusion may be very relevant since beliefs in memories strongly impact cognitive-behavioral treatment outcomes. At present, there are certain therapeutic techniques such as imagery rescripting and Eye Movement Desensitization and Reprocessing (EMDR) that try to alter patients' memories to treat their symptoms. Clinical psychologists may aim to develop therapeutic methods that re-shape patients' beliefs about their past rather than recollections (which may remain intact) to more effectively treat patients with trauma- and stress-related disorders. Furthermore, this dissertation can be of interest to the general public. That is, they can learn that their memories are easily shaped by feedback from others such as friends and that this might affect the decisions they make.

Activities and Products

As summarized in Chapter 2, concrete activities can emerge based on our research findings. Workshops and seminars can be organized in China to educate legal professionals about how mechanisms of false memory can impact eyewitness reports and thus influence the investigative procedures and execution of justice. Moreover, since the Criminal Procedure Law of China does not specify the rules of regulating eyewitness identification

processes such as lineup administration, additional rules (e.g., blind lineup) can be added based on my review findings. For the general legal system at the global scale, the differentiation between autobiographical belief and recollection should be made when evaluating eyewitness reports by asking eyewitnesses explicitly if they could recall specific recollections or they believe the occurrence of certain events.

New therapeutic methods to treat trauma may be produced based on the findings obtained from the current dissertation. In current therapies that treat trauma such as imagery re-scripting, memories are targeted to be changed by “altering” the unwanted content of negative past experiences. With the differentiation of autobiographical belief and recollection in memory, this dissertation has concluded that autobiographical belief is the key to change behavioral outcomes. Thus, therapeutic methods that target patients’ beliefs about their past could be developed from current research results.

Innovation

This is the first doctoral thesis comparing the cognitive and behavioral consequences of believing and remembering. Most of previous literature emphasized the importance of remembering the past, but my dissertation is the first to show the dominant role of believing the past when the past is used to guide people’s behavior. Legal professionals should be cautious when dealing with eyewitness reports. That is, more attention should be made on checking whether these reports are based on recollections or merely autobiographical beliefs. Beliefs are easy to manipulate while recollections are more resistant to false feedback. This dissertation also adds new value to the clinical field, opening the possibility to re-evaluate components of memory and how to target memory as a way of treating patients.

Schedule and Implementation

Within this PhD project, I have had close collaboration with researchers worldwide, especially with researchers in the United Kingdom and in China. I have presented work emerged from my PhD project at conferences in the Netherlands, Belgium, Hungary, and Canada. I have written an article targeted for the general public in the InMind magazine, to explain autobiographical belief and recollection and their relevance to real life. In the near

future, we attempt to establish collaborations with legal professionals in China to organize seminars and workshops about the malleability of memory and its impact in the courtroom.