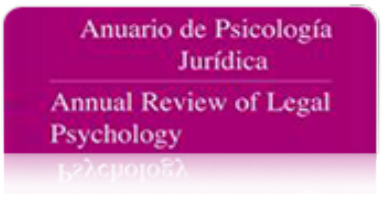

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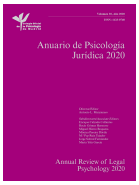

Dissociative Amnesia beyond the Evidence about the Functioning of Memory

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A B S T R A C T

The reality of dissociative amnesia has been debated at length. From a clinical perspective, there is support for the existence of this phenomenon, with attempts to extrapolate it to legal contexts. However, there is little evidence to confirm it and, moreover, dissociative amnesias or repressed memories would go against evidences about the functioning of memory. The confusion between clinical psychology and forensic psychology, an inadequate definition of amnesia, the lack of a complete knowledge regarding the mechanisms of memory, and the problems inherent to the research of traumatic memories could explain the lack of agreement.

La amnesia disociativa más allá de la evidencia del funcionamiento de la memoria

Palabras clave:
Amnesia disociativa
Memoria traumática
Guerras de la memoria
Memoria reprimida

R E S U M E N

Se ha debatido largamente sobre la realidad de las amnesias disociativas. Desde perspectivas clínicas se ha apoyado la existencia de este fenómeno que se ha intentado extrapolar a contextos legales. Sin embargo, existe poca evidencia para poder confirmarlo, al tiempo que las amnesias disociativas o memorias reprimidas irían en contra de las evidencias sobre el funcionamiento de la memoria. La confusión entre psicología clínica y psicología forense, una inadecuada definición de amnesia, el desconocimiento de muchos de los mecanismos de la memoria y los problemas inherentes a la investigación sobre las memorias traumáticas explicarían la falta de acuerdo.

The controversy surrounding dissociative amnesia within forensic contexts has reopened an interesting discussion (Brand et al., 2018; Brand, Schielke, & Brams, 2017; Brand, Schielke, Brams, & DiComo, 2017; Merckelbach, & Patihis, 2018; Patihis, Ho, Loftus, & Herrera, 2018; Patihis, Otgaar, & Merckelbach, 2019), under the denomination of memory wars (Loftus, 2004), that had been closed for some time (Freyd, Klest, & DePrince, 2010; Lindblom & Gray, 2010; Loftus, 1993; Loftus & Ketcham, 1996; Memon & Young, 1997).

This discussion is relevant in forensic contexts, where the acceptance of the phenomenon of repressed and later recovered memories can lead to judicial errors as, in reality, they were false memories caused by bad practices when trying to get victims to "remember" facts that had not taken place (Loftus, 2004). However, it should not be limited to whether the courts accept these theories or not (Patihis et al., 2019), as this area should be very clear. The theory about repressed memories or dissociative amnesias does not meet the criteria established in Daubert vs. Merrell Dow Pharmaceuticals, Inc. (1993); therefore, it should not be taken into consideration by the courts, because of the noise and misinformation generated among professionals due to the lack of agreements on the scientific evidence.

Several elements can be observed that lead to the maintenance of the existence of false dissociative amnesias: a) the confusion between clinical psychology and forensic psychology, b) an inadequate definition of amnesia and the lack of a complete knowledge regarding memory mechanisms (specifically in relation to traumatic memories), and c) the problems inherent to researching traumatic memories.

Clinical Psychology vs. Forensic Psychology

Clinical psychology and forensic psychology are two disciplines that are not only different but, in many aspects, contradictory (Greenberg & Shuman, 1997). Both disciplines differ fundamentally in their objectives, in the relationship between the evaluators and people being evaluated, in their standards and requirements, and in the methods used. The concept of dissociative amnesia may be useful

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in psychotherapeutic intervention, but in no way can it be applied to forensic psychology, which should only be based on scientific evidence. What is relevant is what lies behind that concept.

In the psychotherapeutic context, a patient would often be believed when he/she states that he/she is unable to leave home because he/she was attacked years ago. The main role of the therapist is not to analyze the reality of that aggression, beyond the implications that this may have for the therapeutic process. Moreover, most therapists may focus on the subjective experience of the patient, since the psychological impact of the subjectively experienced event is central for their intervention. In the forensic context, the objective would be to analyze specifically the reality of that aggression. When a patient in psychotherapy says that he/she does not remember supposedly experienced facts, the therapist may not question the quality of the patient's memory unless this implies a clear benefit for the therapeutic process. However, this is sometimes an easy response for patients who do not want to deal with a traumatic experience. Behind the "I do not remember" there may be "I do not want to remember" or "I do not want to talk about it" in many cases.

When working with victims of proven facts, such as natural catastrophes or wars, who are questioned about their affirmation of not remembering, we often find ourselves with the recognition that their real problem is that they want to forget, but they are unable to do so (Manzanero et al., 2018). In a study on memories of sexual assault, Porter and Birt (2001) found that these memories tend to be remembered more frequently than other autobiographical memories and, in the few cases in which this type of events have been forgotten (4.6% of the total), it was due to a deliberate attempt not to remember rather than to a repressed memory or dissociated amnesia. In general, memories of a traumatic event are more likely to give rise to a flashbulb memory than to amnesia (Hirst et al., 2015). Human memory essentially processes emotionally significant information. A traumatic event is emotionally significant and very distinctive autobiographically, which should contribute to these memories being prioritized over other memories.

From the survival point of view, it does not seem very useful to forget traumatic experiences (although they may cause pain). During the past decades, we have seen how attempts have been made to suppress traumatic memories through different procedures (Kaas et al., 2013; Pawlak, Magarinos, Melchor, McEwen, & Strickland, 2003). The design of some of these studies consisted in placing rats in a maze where one area caused electric shocks every time the rat passed through it. After a single intervention, the rat would forget the experience, which caused it to receive electric shocks again. Several questions arise from these results: what interest does the rat have in electrocuting itself again and again?; do rats have the ability to remember (episodic memory) or only the ability to learn (semantic and procedural memory)?

Amnesia vs. Poor Memory

Another element that generates confusion in the debate on dissociative amnesia is the deficient definition of amnesia. In this way, the amnesia, that implies a complete lack of memory, is confused with a poor memory. Remembering poorly is not the same as not remembering at all. The DSM-5 (APA, 2013) contributes to the confusion when, in some pathologies such as post-traumatic stress disorder, it mentions the "inability to recall key features of the trauma" as a criterion. The reduction of cognitive resources by the effect of high levels of activation (stress) is a well-established evidence (Yerkes & Dodson, 1908), which produces a narrowing of the attentional focus (Easterbrook, 1959) and hinders the integration processes in the generation of memory traces. As a result, the memories of traumatic events associated to high levels of anxiety are characterized by a detailed description of the central information but with few peripheral details (Byrne, Hyman, & Scott, 2001), frequently appear fragmented and are very sensory (as processing sensory information requires few cognitive resources). This lack of cognitive resources in the coding phase would also cause weak memories, as hinders an in-depth processing of the information and the establishment of associations with prior knowledge and experience (Craik & Lockhart, 1972). Deficits in coding processes would hinder explicit (controlled) retrieval but would allow implicit (automatic) recovery, more likely giving rise to unintentional or incidental recall rather than to a deliberate recall (Graf & Mandler, 1984; Schacter, 1987). Incidental recovery involves non-conscious processes of recovery; thus, it is not possible to identify the signs of recovery that make this memory accessible, and therefore it is not possible to control them (Baddeley, 1990).

Another feature that is often interpreted as a symptom of a dissociation is the depersonalization that can characterize the memories of victims of traumatic events. However, it is characteristic of autobiographical memories to be recovered from different points of view, from an observer's perspective (in third person or as if it were a film) or from a field perspective (from the protagonist perspective itself). In general, this difference is not due to a pathology, dissociation, which is serious and rare, but to the normal functioning of memory (D'Argembeau, Comblain, & Van der Linden, 2003; Manzanero, López, Aróztegui, & El-Astal, 2015) and to the effect of multiple recovery that is typical in this type of memories and that also characterizes the earliest and most elaborated memories (Crawley & French, 2005).

Problems in Studying Traumatic Memories

Certainly, there is controversy regarding the characteristics of traumatic memories (Brewin, 2007). There are several reasons that generate great variability in the results found. The main cause is the sample analyzed. Sometimes they are clinical samples, therefore they are already skewed from the start, as they do not contemplate in the study the non-clinical population that would be the majority among adult (Steel et al., 2009) and children (Dimitry, 2012; Manzanero et al., 2017) victims. On the other hand, the memories studied are difficult to contrast from the point of view of their reality, for example, in child sexual abuse. For this reason, other types of samples have been sought. As pointed out by Patihis et al. (2019), the study of victims of wars and catastrophes could provide more information on the characteristics of traumatic memories, as it is easier to establish the reality of the traumatic experience. However, in these samples, it is not always easy to rule out unwanted effects of uncontrolled variables (organic damage, drug effects or pharmacological treatments, sleep deficits, nutritional deficiencies, etc.).

Conclusions

Psychologists have not been able to clearly confirm the existence of dissociative amnesia, with accumulating evidence that when people experience a traumatic episode, the most usual thing is not to forget it, but rather not being able to stop remembering it (Hirst et al., 2015; Manzanero et al., 2018; Porter & Birt, 2001). This has important implications from a forensic perspective, because if dissociative amnesia is not a confirmed phenomenon, it is not possible for a court to consider it as such.

We have briefly reviewed the main reasons that explain the maintenance of the erroneous assumption about the existence of dissociative amnesia. One has to do with the fact that, in a therapeutic context, dissociative amnesia is usually accepted, as the psychologist can (completely or temporarily) admit that the patient does not remember some episodes, as that forgetfulness (that can sometimes imply a desire not to address certain issues) does not interfere with

the therapy. Most memory experts consider that the repression of traumatic memories is not a plausible phenomenon, nor the possibility of remembering traumatic events in a therapeutic context, opinions that are not shared by a large number of professionals dedicated to practice, students, or the general public (Patihis et al., 2018).

We need to generate a strong empirical base that allows us to better understand the mechanisms of memory involved both in remembering and forgetting traumatic memories. Following this, as suggested by Patihis et al. (2018), it is important to investigate more about the nature of traumatic memories and their relationship with dissociation, as well as the phenomenon of repressed memories, with special attention to the study of the psychological mechanisms involved in motivated forgetting but also, and specially, retrieval inhibition (Catarino, Küpper, Werner-Seidler, Dalgleish, & Anderson, 2015) and its relationship with emotion (Gagnepain, Hulbert, & Anderson, 2017).

The inadequate conception of dissociative amnesia as an amnesia, instead of as a phenomenon derived from the normal functioning of memory in extreme psychological situations that implies the deficient coding of the event and the generation of incomplete or deficient memory traces that complicate its posterior recovery, in addition to the difficulty of studying traumatic mechanisms (low incidence phenomenon, complex verification, and important ethical implications at the time of investigation), also contribute to the confusion on the nature of the dissociative amnesia and the maintenance of the phenomenon.

Nowadays, different countries have proposed that sexual crimes against minors be imprescriptible and associations of victims of child sexual abuse have arisen with the objective of discovering this type of crimes "hidden" for decades, proving these crimes are extremely difficult and are advocated towards the victim's testimony being sufficient to distort the presumption of innocence and secure a conviction (Subijana & Echeburúa, 2018). In this context, memory experts have denounced some iatrogenic psychotherapeutic practices, "which included guided imagination, dream interpretation, hypnosis, sodium amytal administration, and 'bibliotherapy', in which patients are given books to read that convey the theory of massive repression of childhood sex abuse, all designed to excavate the allegedly recalcitrant trauma memories" (Loftus, 2004, pp. 20). These procedures can generate false memories that, together with erroneous indicators of abuse, could give rise to false complaints, even if the intention was to detect "repressed" cases of sexual abuse in childhood.

From a practical point of view, to minimize cases of sexual abuse based on false memories, different factors should be taken into account, such as: a) the age of the victim at the time of the events, b) if it was a single occurrence or repeated over time, c) the duration of the aggressions, d) the type of aggression, e) when and how the first revelation arose, f) the dynamics of the evolution of the recall, g) the procedures followed to obtain the declarations, h) if it could be a "repressed" and then recovered memory, i) the number of victims, j) the relationship between the victim and the aggressor, k) interests in the complaint, l) concusses… It is not the same to consider a sexual assault that lasted for years between the ages of 8 and 17 years and that the victim always remembered although he/she did not report (due to embarrassment, fear...), that a case in which the 35-year-old victim undergoes therapeutic procedures to remember that when he/she was less than 5 years old, he/she was sexually assaulted once by a family member who was looking after him/her. In both cases, the sexual assaults may have occurred, but in the second case it is more likely to be a false memory than a recovered memory.

Conflict of Interest

The authors of this article declare no conflict of interest.

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