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POSTHYPNOTIC AMNESIA AND AUTOBIOGRAPHICAL MEMORY IN ADOLESCENTS

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Abstract
A group of highly-suggestible adolescents (n=25) and a group of adolescents with low suggestibility (n=25) followed a hypnotic induction procedure, during which a suggestion of posthypnotic amnesia was given, with the purpose of assessing its influence on autobiographical memory and of investigating if hypnosis-induced amnesia shares the same characteristics as functional amnesia. Statistical analysis confirmed the results of previous studies in the field and, surprisingly, pointed out that even less suggestible participants can be influenced by the suggestion of posthypnotic amnesia. In their case, however, trance levels were more superficial than in the case of highly-suggestible participants.

Keywords*:* hypnosis, posthypnotic amnesia, autobiographical memory, adolescents

This starting point of this research was Amanda Barnier's study *Posthypnotic amnesia for autobiographical episodes: a laboratory model of functional amnesia?* (Barnier, 2002) showing that the effect of posthypnotic amnesia suggestion on auto-biographical memory is similar to functional amnesia.

According to DSM-IV, functional amnesia, also known as dissociative autobiographical amnesia, most frequently appears as a memory gap regarding traumatic or highly stressful events:

- *in localized amnesia* the person cannot remember events taking place during certain well-defined periods of time, generally during the first hours following a traumatic event;

- *in selective amnesia* the person remembers something, but not all the events occurring during a certain well-defined time period (e.g., a veteran may remember only certain parts of a series of violent fight experiences);

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- *in generalized amnesia* the inability to recall concerns the entire life of the person. People affected by this rare disorder are usually seen in police stations, emergency rooms or in psychiatric facilities.

- *continuous amnesia* refers to an individual's inability of recalling events subsequent to a certain moment/date.

- *systematized amnesia* consists of memory loss for a certain category of information such as all the memories related with the individual's family or with a certain person.

Functional amnesia is characterized by:

a) the inability of consciously accessing personal memories (disruption of the explicit memory).

b) the continuing influence of forgotten information on behavior, thought and action (a dissociation between implicit and explicit memory).

c) spontaneous recovery, reflecting altered access, rather than a simple decline of memory over the years caused by normal forgetting (Bryant, 1995; Eich, Macanlay, Loewenstein & Dihle, 1997).

It is labeled functional in order to differentiate it from amnesia associated with medical or organic conditions and to emphasize that, to a certain extent the memory loss serves a psychological goal.

As it is not directed to an objective, forgetfulness appears beyond the individual's control, and it persists even if the person tries to surpass it (Christianson, Nilson, Kopelman et al., 1994; Kihlstrom, Schacter, 1995).

Posthypnotic amnesia is the effect of a suggestion to a hypnotized individual that, after hypnosis, he/she will be unable to remember a certain material until he/she receives a clue to cancel the suggestion. Studies indicate that this induces a deep forgetfulness effect, which has been given various explanations in the literature: strategic, socially motivated response withholding (Coe, 1978; Spanos, 1986), temporary, retrieval-based dissociation between episodic and semantic memory (Kihlstrom, 1985, 1998; Kihlstrom & Barnhardt, 1993), and the output inhibition based on the selective tagging of targeted information as "forbidden" (Huserman, Gruder & Dorest, 1987; Smith, Morton & Oakley, 1998). A series of studies confirmed that posthypnotic amnesia and functional amnesia involve similar memory effects, and that posthypnotic amnesia is the lab model analogous of functional amnesia (Kihlstrom & Schacter, 1995; Barnier & McConkey, 1999; Barnier, 2002). Barnier et al., (2001) gave high and low hypnotizable participants a suggestion of posthypnotic amnesia targeting a list of words that they had learned before or after induction. Recall impairment and reversibility after the established clue was observed in the case of high hypnotizable individuals, but not in the case of less hypnotizable.

Research on the effects of posthypnotic amnesia on autobiographical memory typically involves comparisons between individuals high and low in hypnotisability, as only the former experience posthypnotic amnesia (Kihlstrom, 1980; Bryant, 1999; Barnier et al., 2001). In some studies participants were asked

to recall, before or during hypnosis, autobiographical information (such as friends' names, the name of their school, Barnier 2002), aspects of memorable private events (the first day of high school, the last birthday) or specific past events (Cox & Barnier, 2003). Then, during hypnosis, they were given a suggestion of posthypnotic amnesia for one of the two episodes. In another study, participants were asked to remember specific events of their first romantic relationship (such as watching movies) and they were suggested amnesia either for these specific events or for the entire relationship (Cox & Barnier, 2003). After hypnosis participants were asked to recall the autobiographical information both before and after the suggestion of amnesia was cancelled. Both high and low hypnotizable subjects managed to generate the target memories. However, after the amnesia suggestion, only high hypnotizable, but not low hypnotizable participants displayed a significant decline in remembering.

Implicit memory refers to the effects of past events in the absence of conscious recall (Schacter, 1987). Despite its relevance for functional amnesia, implicit autobiographical memory is conceptually unclear, and methodologically problematic. For example, many theorists view autobiographical memory in terms of conscious recall of past events (Conway, Pleydell,- Pearce, 2000). Also, most implicit memory has mostly been assessed using simple stimuli, such as the lists of words. Later on, new tasks were developed to allow for the accurate assessment of implicit autobiographical memory; among these tasks are the generation of categories and the social judgment task.

Objectives

The goal of study was to explore, on a sample of Romanian adolescent participants, the influence of a PHA (posthypnotic amnesia) suggestion on autobiographical memory and to investigate if hypnosis-induced amnesia displays the same characteristics as functional amnesia. In order to be considered similar to functional amnesia, posthypnotic amnesia would need to display the following characteristics: (1) difficulty in remembering; (2) dissociation between implicit and explicit memory; (3) reversibility. The hypotheses of the study were as follows:

- *The suggestion of posthypnotic amnesia influences the performance in recalling autobiographical information;*
- *The cancellation clue of the posthypnotic amnesia suggestion results in the reversibility of the effect;*
- *We assume the existence of a dissociation between implicit and explicit memory in the case of highly suggestible participants;*
- *In the state of amnesia, participants with high levels of suggestibility forget more information of the same episode than those with low levels of suggestibility.*

Method

Design

Independent variables:

1. **level of suggestibility:** high suggestibility and low suggestibility, determined by the participants' results on the Suggestibility Inventory (Hector Gonzales Ordi & Joe Miguel- Tobal, 1999);
2. **type of suggestion**: suggestion of posthypnotic amnesia and suggestion of cancellation of amnesia.
3. **type of autobiographical episode** targeted by the suggestion: a recent episode (first day as a 10^{th} grade student), and a distant episode (first day as a 1^{st} grade student).

Dependent variables:

1. Explicit memory performance of the autobiographical episode, assessed by:

- participants' answers regarding the 9 autobiographical items and the two memorable events for both the recent and the distant episode, assessed at three different intervals: Initial Memory, Recall 1, and Recall 2;
- performance on the social judgment task that involves the evaluation of how the event was experienced, by means of the Life Events Inventory;
- answers, on a 7-point Likert-type scale, to a question regarding how vivid the memories were and how confident participants were in the accuracy of their recall.

2. *Implicit memory performance*, assessed by:

- answers related to the critical categories (the 10 girls' names, and the 10 boys' names) in the categories generation task;
- social judgment task answers regarding the estimations of how target events took place in the case of 95% of the population, assessed by means of the Life Events Inventory. (Gary, Manning, Loftus, & Sherman, 1996).

3. *The dissociation* between implicit and explicit memory, evaluated by comparing the number of semantic details in autobiographical episodes that were generated as examples of critical categories (girls' names, boys' names) with explicit memory performance reflected in the number of the same names remembered at the Recall 1 (maximum = 6). Dissociation was also assessed by comparing evaluations of events referring to others (implicit memory) with events happening to oneself (explicit memory) within the Life Events Inventory.

Participants

Participants were 50 adolescents, of which 25 had low levels of suggestibility (15 boys and 10 girls; mean age = 16.32, SD= 0.42) and 25 had

high levels of suggestibility (8 boys and 17 girls; mean age = 16.44, SD= 0.51), from "Ion Neculce" High School in Iaşi. They participated in exchange of Psychology course credits. Selection was made based on the Suggestibility Inventory (Hector Gonzales Ordi & Joe Miguel–Tobal, 1999).

Materials

The Suggestibility Inventory was developed by the group of researchers from Compultese University, Madrid (Gonzales Ordi & Miguel–Tobal, 1999) due to the necessity of an instrument in the field of suggestibility that allows a fast and efficient collecting of standardized data regarding this individual characteristic. The total score of this Inventory represents a measure of suggestibility, treated as an individuality characteristic that is manifested in behaviors performed in every-day situations (e.g., reading a book, watching a movie, focusing on an object or activity). The inventory was administered to a group of 30 individuals, and a Cronbach's alpha value of .80 was obtained. This value indicates that the instrument has good internal consistency.

Participants' *explicit memory* for the recent and distant episodes was assessed by a recall task administered at three moments: before the posthypnotic amnesia suggestion (Initial Memory), after the suggestion was given (Recall 1), and after the suggestion was cancelled (Recall 2). The recent and distant target episodes were: the first day of school in the 1st grade (approximately 9 years before the experiment), and the first day at school in the 10^{th} grade (approximately 6 months before the experiment). The procedure relied on the *Autobiographical Memory Interview* by Kopelman, Wilson and Baddeley (1990) and on their distinction between personal semantic information and autobiographic event. Subjects were asked to remember:

a) nine autobiographical items (semantic personal information) for each episode, as follows: the name of the school, the city were the school was located, the name of the teacher whom they had met that day, the names of three male friends with whom they had interacted that day, and the name of three girl friends with whom they had interacted that day

b) a memorable incident from each episode (autobiographical event). Considering that most participants reported that no memorable incident, a separate analysis of the data was considered irrelevant. However, as it was important that some participants recalled such an incident, whereas others did not, the answer was taken into account; therefore, the maximum number of personal items recalled is 10.

The *dissociation* between implicit and explicit memory was assessed by a category generation task and a social judgment task. As part of the category generation task, participants were asked to generate, as quickly as possible, in order to determine the speed of information processing, 10 examples for each of

the two critical categories: girls' names and boys' names, and 5 examples for the following categories: sports, countries, birds.

I*mplicit memory performance* was reflected in the number of girls' and boys' names from autobiographical episodes that were generated as examples of the two critical categories (girls' names, boys' names), while *explicit memory* was represented by the number of these names recalled at Recall 1 (maximum = 6).

The social judgment task consists in the completion of the Life Events Inventory (Garry, Manning, Loftus, & Sherman, 1996). The Inventory was translated, and a Cronbach's Alpha of 0.76 was obtained for the Romanian version. This inventory offers a short description of 18 events, and the scoring is made on an 8-point Likert-type scale. Participants are asked to assess the general likelihood of an event [e.g., "How likely is it that 95 % of people have experienced such an event before the age of 18 ?"(1= *not at all likely*, 8= *extremely likely*)], and to rate whether each event had happened to them (1=*it definitely did not happen*, 8= *it definitely did happen*). Evidence for dissociation was assessed by comparing subjects' likelihood ratings (considered implicit memory as they did not depend on conscious recollection) with their happened-to-me ratings (considered explicit memory because they depend on conscious access to autobiographical episodes).

Procedure

Subjects were asked to recall a distant and a recent event. They were asked to close their eyes and imagine re-living the episode, and then to remember the 9 autobiographical items and a memorable event of that day (Initial Memory). Subsequently, they had to evaluate, on 7-point Likert scale, how vivid the memories were, and their confidence in the accuracy of the memory.

Participants were then given a hypnotic induction procedure, and a number of standard suggestions followed by the suggestion of posthypnotic amnesia. Half of the participants were suggested that they would forget the distant episode, while the other half, that they would forget the recent episode until they would be given amnesia suggestion cancellation cue.

After de-induction, the experimenter administered the categories generation task, followed by Recall 1, by the social judgment task (Life Event Inventory), by the suggestion cancellation clue, and by Recall 2. (see Figure 1)

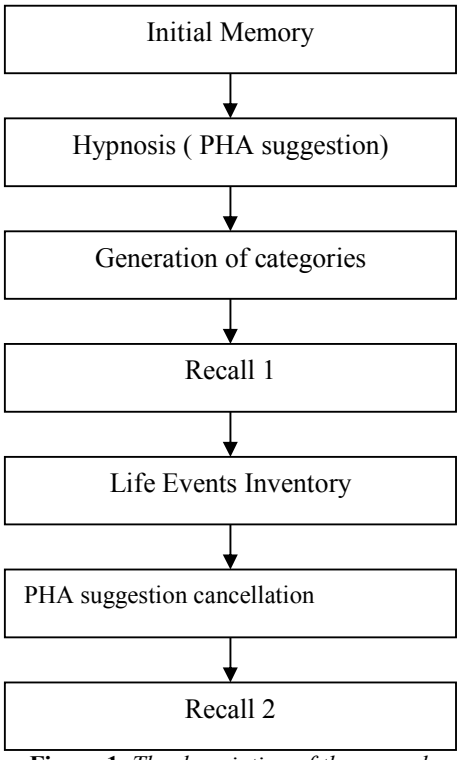

Figure 1. *The description of the procedure*

Results

The first two research hypotheses, stating that the PHA suggestion would influence the level of autobiographical information recalled after hypnosis, and that after the cancellation of the suggestion reversibility would be observed were confirmed.

Table 1. Means and standard deviations for personal information (maximum = 10)

Type of participants and episode	**Initial Memory**	**Recall 1**	**Recall 2**
High suggestible			
Distant episode	9.62 (0.59)	5.92 (2.19)	9.34 (0.80)
Recent episode	9.12 (0.95)	3.95 (2.79)	9.12 (0.90)
Low suggestible			
Distant episode	9.21 (1.13)	6.35 (3.05)	9.10 (1.17)
Recent episode	9.13 (0.95)	7.36 (1.71)	8.96 (0.83)

A mixed model of 2 (high suggestibility vs. low suggestibility) × 2 (the distant vs. recent episode) analysis of variance (ANOVA) of the personal information remembered during Recall 1, after hypnosis, shows a main significant effect of suggestibility, $F(1, 49) = 8.25$, $p<.05$, but the value of squared eta = 0.15, shows that the effect is not very large, meaning that high suggestible subjects remembered fewer details from both episodes than low suggestible subjects. The differences, although statistically significant, are pragmatically unimportant. We did not find a significant effect of the type of episode $F(1, 49) = .81$ ($p>.05$), and the interaction between the two variables was not significant either $F(1,49) = 3.20$ ($p>.05$).

Data analysis shows that, in the case of low suggestible participants, there is a significant difference between initial memory performance and post-amnesia suggestion performance both for the recent episode (M = 9.52 and M = 6.56 respectively), $t(24) = 5.57$, $p<.01$, and for the distant one (M = 8.80 and M =7.04 respectively), $t(24) = 2.94$, $p<.05$.

In the case of high suggestible participants, the analyses of the differences between initial memory performance and posthypnotic amnesia suggestion performance indicated the following results: (M = 9.72 and M = 5.40), $t(24) = 7.94$, $p<.01$ for the recent episode, and (M= 8.84 and M = 4.56), $t(24) = 7.62$, $p<.01$, for the distant episode.

Low suggestibility participants remembered significantly more recent than remote information (M = 9.52, and M = 8.80 respectively), $t(24) = 2.18$, $p<.05$), which can be explained, according to Rubin, Wetzler, & Nebes (1986, apud. Constantin, 2004), by the temporary distribution of autobiographical memories in that the number of recalled events is higher for recent years and constantly diminished as we move back in time. The explanation relies on the existence of a retention factor that makes memories of the past year more accessible and diminishes, through interference, the accessibility of memories from more distant years.

The significant differences in participants' results after hypnosis and those observed after the cancellation of the suggestion indicate that the suggestion of amnesia cancellation lead to the releasing of auto-biographical information. After the cancellation cue (Recall 2), the low suggestible participants improved their memory performance compared to their performance in the experimental situation (Recall 1). Their observed means were M = 6.56 at Recall 1 and M = 9.24 at Recall 2, with a mean difference of $t(24) = -4.60$, $p<.01$ for recent data, and M = 7.04, and M = 8.92 respectively with a mean difference of $t(24) = -3.61$, $p<.01$ for the distant data. Memory performance followed the same path in the case of high suggestible participants with means of M = 5.40 at Recall 1 and M = 9.48 at Recall 2, and a mean difference of $t(24) = - 7.21$, $p<.01$ for recent data, and M = 4.56, and M = 9.00, and a mean difference of $t(24)= -7.04$, $p<.01$ for the distant data. These results confirm the hypothesis referring to the effect of the amnesia cancellation suggestion on memory performance.

The comparison of participants' performance during Initial Memory and Recall 2 for recent data (M = 9.52 and M= 9.24) t(24) = 1.89, p>.05, and for distant data (M = 8.80 and M = 8.92), t(24)= -0.47, p>.05, confirm the reversibility of memories and thus, the temporary functional character of amnesia.

As one can notice, the suggestion of post-hypnotic amnesia produced amnesia both for recent memories (the first day in the $10^{th)}$ grade) and for distant ones (the 1^{st} day in the 1^{st} grade) both in high suggestible and in low suggestible participants. Nevertheless, highly suggestible participants recalled less information than low suggestible ones.

These results are in partial agreement with those of Barnier (2002), who reported amnesia only in the case of high hypnotizable participants, but not in the case of low hypnotizable ones. There are several possible explanations for these differences (in terms of conditions that facilitate the manifestation of the suggested answer):

1. age particularities – participants in our study are adolescents (16-17 years old), that are more suggestible than adults (in Barnier's study the average age was 22);

2. the nature of the relationship between participants and the experimenter: considering that the experimenter was also the participant's teacher, who evaluated them during the classes, it possible that these two roles affected one another, and that participants – students – would have perceived the suggestions as imperative;

3. the amnesia suggestions, integrated in a standardized approach, were formulated in an ericksonian permissive manner; this gives the subject more liberty to produce the answer in his own rhythm (e.g., "it will be very, very hard…or even impossible for you to remember…'')

4. Barnier (2002) used hypnotisability as an experimental variable, assessed by a modified 10-item version of Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS: A, Shor & Orne, 1962), and a 10-item version of the Stanford Hypnotic Susceptibility Scale, Form C (SHSS: C; Weitzenhoffer & Hilgard, 1962). While our study included suggestibility as a variable, and although these variables are closely related, the different assessment instruments could also explain the observed differences;

5. the use of a single evaluation instrument of a complex personality feature such as suggestibility could be the source of these differences.

But in order to fulfill the conditions of functional amnesia, posthypnotic amnesia implies a dissociation between implicit and explicit memory, therefore we hypothesized (Hypothesis 3) the existence of a dissociation between implicit and explicit memory in the case of high hypnotizable individuals.

Table 2 presents the means and standard deviations (in brackets) of the participant's results on the implicit and explicit memory tasks.

Table 2. The dissociation between implicit and explicit memory

Recent episode	Generation of categories	
Group of participants and episode	Implicit memory	Explicit memory
Low suggestible		
Episode targeted by PHA	4.18 (1.60)	4.73 (1.85)
Episode not targeted	2.82 (1.94)	4.64 (1.57)
High suggestible		
Episode targeted by PHA	4.00 (1.21)	4.64 (1.57)
Episode not targeted	1.83 (1.03)	2.25 (2.30)
Distant episode		
Low suggestible		
Episode targeted by PHA	3.71 (1.27)	4.36 (1.91)
Episode not targeted	3.86 (1.66)	4.07 (1.90)
High suggestible		
Episode targeted by PHA	3.06 (1.55)	3.77 (2.68)
Episode not targeted	4,31 (1.25)	4.60 (1.89)

In the case of category generation, implicit memory is reflected in the number of semantic details from autobiographical episodes generated as an example of critical categories (girls' names and boys' names), while explicit memory performance is reflected in the number of these names remembered at Recall 1 (maximum = 6).

Based on a-priori data, the dissociation between implicit and explicit memory was only expected in the case of high suggestibility participants. A-posteriori analyses indicates that this dissociation also manifests in the acse of low suggestible participants as well (implicit memory M= 3.66, explicit memory M= 4.42; $t(24)= - 3.05$, $p=.05$).

Another way to assess dissociation between implicit and explicit memory was by comparing participants' estimations on the Life Events Inventory. Data analyses indicate significant differences between the two types of memory both in the case of low suggestible participants (explicit memory M= 45.08, implicit memory M = 60.56, $t(24) = -3.80$, $p<.01$) and high suggestible participants (explicit memory M = 44.88, and implicit memory M = 56.40, $t(24) = -3.29$, $p<.05$).

What are the possible explanations for posthypnotic amnesia being observed in the case of low suggestible participants, despite the fact that, following the amnesia suggestions participants recalled most of their classmates names, unlike those highly suggestible, who recalled significantly less (high suggestible M = 2.25, low suggestible M = 4.64, $t(24) = 2.87$, $p<.01$), when the episode targeted by amnesia was the recent one?

Possible explanations of the differences between the two groups include:

1. the selectivity of amnesia – " the deeper the trance the more profound the dissociation is and the higher the availability for unconscious answers."(Dafinoiu & Vargha, 2003). In other words, low suggestible participants experienced a more superficial trance that determined amnesia for less important information such as the name of the school, the name of the locality, the name of the teacher, that were enough to create the difference compared to Initial Memory and to indicate amnesia, but it was not a deep enough trance to make them forget the names of their classmates, which is more important and emotionally laden information.

2. the amnesia suggestion for some of the information produced through propagation, effects on the episode which was not targeted by this suggestion.

Our fourth hypothesis was that in the state of amnesia, participants with high levels of suggestibility forget more information of the same episode than those with low levels of suggestibility. This hypothesis was partially confirmed, as the differences between high and low suggestible participants were only observed in the case of the recent autobiographical episode, but not in the case of the distant episode.

When we analyzed the differences between the results in the Initial Memory phase and those in the Recall 1 phase, a significant difference was noticed in the case of low suggestible participants ($t(24) = 5.57$, $p<.01$ recent episode and $t(24) = 2.94$, $p<.05$ distant episode) as well as in the case of high suggestible participants ($t(24) = 7.94$, $p<.01$ recent episode and $t(24) =7.62$, $p<.01$ distant episode).

No significant differences between high and low suggestible participants were found when the target of the amnesia suggestion was the distant episode. In the case of posthypnotic amnesia for the recent episode, the following significant differences were observed: (low suggestible participants $M = 7.18$, high suggestible participants $M = 4.50$) $t(21) = 2.22$, $p<.05$. As for the amnesia episode that was not targeted, between-groups differences were also significant (low suggestible $M = 7.55$, high suggestible $M = 3.42$), $t(21) = 3.86$, $p<.01$. Thus, low suggestible individuals remember significantly more information of both episodes (i.e., target episode and non-target episode) than high suggestible ones.

Regarding estimates of memory vividness and accuracy, our results indicate that vividness is reported to increase towards the end of the experiment, but accuracy is not, so that participants are not certain whether they are recalling the target day or another day.

Low suggestible individuals given the suggestion to forget the events of the first day in the 1st grade forgot more than those that had to forget the recent episode; this result can be explained by the fact that "distant memories are more susceptible at posthypnotic amnesia than the recent memories are." (Barnier, 2002).

The differences between high and low suggestible participants due to the level of experiencing trance are as follows:

1. Low suggestible participants remembered significantly more recent autobiographical data than high suggestible ones (10^{th} grade memories); this could indicate that they experienced a more superficial trance;

2. Correlation analysis indicated ($r = .79$, $p<.01$) that high suggestible participants that omitted information referring to the recent episode, also omitted information from the distant episode, and this can be explained by the fact the activation between and within levels of autobiographical knowledge is diffused; events targeted by the suggestion will become associated with related but not targeted information. This is in line with data reported by Allen, Iacono, Lanavuso & Dundin (1995; apud. Cox & Barnier, 2003) showing that high hypnotizable, but not low hypnotizable individuals, display deteriorations in the recognition not only of a list of words targeted by posthypnotic amnesia, but also of a list of words not targeted by suggestion.

3. In the case of low suggestible participants there are not differences in the reported vividness of the distant episode between the Initial Memory and the Recall 1. This means that bringing up again the memory from the 1^{st} grade does not make low suggestible participants relive it more vividly, while on average, while on average, if we don't take into account the level of suggestibility or the episode targeted by amnesia, participants tend to estimate their memories as being more vivid towards the end of experiment. Accuracy estimations remained unchanged across experimental intervals. One possibility is that "the reasons we believe in the accuracy/precision of our memories are firstly related to our personal memories; we trust the authenticity of our memories because we know what we did and what we said in a certain situation, who was present, and because we often verified this information through discussions with the others.' (Constantin T., 2004). Participants had probably gone through what their first day in school was like, in their discussions with their parents or as part of their homework assignments requiring them to write about "The first day in school". Thus, bringing up these memories again does not influence the perception of their accuracy, it only makes them more vivid.

Conclusions

Although posthypnotic amnesia appeared both in low suggestible and high suggestible participants, there were also many differences between the two groups throughout the experiment.

Our results indicate that posthypnotic amnesia displays all three characteristics of functional amnesia: memory deterioration, dissociation between implicit and explicit memory and reversibility.

Our data also show that posthypnotic amnesia can influence autobiographical memory in the case of low suggestible adolescents as well.

However, further research and replication of this study are needed to confirm these results.

From a theoretical point of view, our research contributes to the literature aiming to answer the question of whether the hypnotic state or suggestions given in this state can influence autobiographical memory. Moreover, its theoretical value relies in the practical implications of these issues for psychotherapists. This type of research is needed to find out, for example, whether individuals scoring low on suggestibility scales can enter into appropriate states of therapeutic trance (i.e., a state of trance that will induce alterations in the perception of autobiographical events).

A-posteriori analysis showed that low suggestible adolescent can develop posthypnotic amnesia, probably because amnesia also had to do with the individual's motivation, beliefs about hypnosis - that can act as implicit suggestions - with the quality of the relation established with the inductor, with the quality of the suggestions etc. (Dafinoiu & Vargha, 2003).

Lately, researchers have focused on analyzing the differences in suggestibility between children and adults. Results indicate a decreasing tendency in hypnotic suggestibility from 17 to 40 years of age (Page, Green, 2007). This is a possible explanation for the manifestation of posthypnotic amnesia in the case of 16 years old low suggestible individuals observed in this study. However, age is obviously not the only predictor of suggestibility.

This study, part of the line of research disputing the nature of hypnotic suggestibility, indicates that suggestibility is modifiable, having a situational character, although it can be viewed as a general trait of personality as well.

Our results must be interpreted keeping in mind the limitations deriving from the experimental conditions, the use of a single instrument for determining suggestibility levels and the absence of certain procedures such as Orne's real simulation paradigm.

Research on posthypnotic amnesia will lead to a better understanding of functional amnesia at the same time taking into account the differences between the two phenomena, that lie at the level of experimental approach and practical utility: the reversibility of posthypnotic amnesia can be controlled by the experimenter and while functional amnesia serves a psychological objective, posthypnotic amnesia could serve a therapeutic objective.

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