ATTACHMENT AND SUGGESTION-RELATED PHENOMENA

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Abstract: This study uses a new classification of suggestion-related phenomena and investigates the relationship between attachment styles and reaction to suggestion. The authors used 3 traditional experimental tasks: a stimulus-misinformation task, an inkblot perception task, and a subjective estimation of a nonexistent difference task. A measure of adult attachment was also taken. Participants with a high attachment insecurity as opposed to those with a low one were less influenced by suggestions in the recall phase of the memory task. Results are discussed within the framework of suggestion models, the dual models of social behavior, and the adult attachment model. Implications of findings are limited to simple suggestion rather than the more complex set of responses related to hypnotizability.

Suggestion occupies a rather uncertain place within the field of psychology, since it refers to a relatively heterogeneous group of phenomena, long considered undeserving of scientific attention (Bernheim, 1886; Janet, 1920; Morgan, 1924; Travis, 1924; Whipple, 1966). However, some social psychologists continued to use this term in their work (Sheriff, 1935). Later, researchers rejected the connection between hysteria and the tendency to be swayed by suggestion (Eysenck, 1943). The first factorial analyses on the scores recorded for the various tasks of suggestibility did not succeed in separating distinct types of suggestibility (Evans, 1967; Eysenck & Furneaux, 1945). Consequently, researchers in the second half of the 20th century showed little interest in suggestion and suggestibility, while modern researchers abandoned all efforts of defining these terms (Gheorghiu, 2000). It was Gudjonsson (1989) who reopened this issue, although he only approached the fidelity of witnesses’ memory in legal proceedings.

Researchers who studied suggestion and suggestibility used different means and experimental settings (Asch, 1956; Bernheim, 1886; Binet, 1900; Gheorghiu, 2000; Gudjonsson, 1989, 2003). Thus, a first modern...
classification of suggestion phenomena was carried out rather late. This classification distinguished among the various psychological processes that can be influenced through suggestion (Lundh, 1998).

Suggestibility is a natural feature with a normal distribution within the population. There are at least several types of suggestibility (e.g., primary, prestige) that cannot be gathered within a unitary factor (Eysenck, 1943; Gheorghiu, Netter, Eysenck, & Rosenthal, 1998; Hull, 1929; Morgan, 1924; Scott, 1910; Sidis, 1898). For a better mapping of the field, we suggest a classification of the phenomena studied in the tradition of suggestion, using the criterion of the way suggestion takes place. We separated three main categories as ideomanifestations, suggestions based on expectancy and distortions of recalled contents (see Table 1). Another trait of suggestion is that it is accepted automatically by the person (Hull, 1929; Lundh, 1998; Sidis, 1898; Young, 1929).

According to Lundh (1998), suggestion is an interpersonal priming where a suggestor influences a suggestant. When suggesting, the suggestor activates structures of meaning, relatively stable patterns of attributing meaning to objects, events, actions, etc. These structures encode information about the world, in a many-to-one mapping of the external information with nodes and multiple connections between those nodes. All mental processes involve an automatic activation of these structures, which spreads according to the network connections and according to their strength. These structures of meaning remain active for a certain amount of time, functioning as a basis for the priming effects (Lundh, 1998).

Strack and Deutsch (2004) proposed two parallel systems of social behavior: the reflexive system and the impulsive system. These two systems are active and compete for control. The reflexive system contains the processes of intention and decision and is, thus, costly in cognitive capacity. Its elements are associated through semantic links. On the other hand, the impulsive system requires far less cognitive capacity and contains the behavioral schemata needed for everyday behavior. Its elements are connected through associative links and according to the way that experiences tend to be similar or contiguous in time. These behavioral schemata could be, thus, responsible for the apparent involuntary behaviors in suggestive phenomena. The impulsive system gives rise to behavior by diffusing activation from perceptual/imaginative input to behavioral schemata. Moreover, the impulsive system is monitored by the reflexive system through the process of intention (Strack & Deutsch, 2004).

**Adult Attachment**

Expanding Bowlby’s model (1973), Bartholomew (1990) suggested two internal working models that can be represented as two orthogonal
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<td>Eyelids catalepsy</td>
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<td>Inducing an ideosensory response</td>
<td>Ideosensory response</td>
<td>Thirst hallucination</td>
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<td>Music hallucination</td>
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<td>Inducing an ideoaffective response</td>
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<td>Orange hallucination</td>
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<td>Suggestions by inducing expectancy</td>
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<td>Inkblot test</td>
<td>(Eysenck &amp; Furneaux, 1945)</td>
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<td>Odor suggestion</td>
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<td>Heat illusion</td>
<td>(Das, 1960)</td>
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<td>experiments using the autokinetic effect</td>
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<td>Effect of the stimulus credibility</td>
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<tr>
<td>Suggestions by distorting recalled contents</td>
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<td>Suggestions by interrogative pressure</td>
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<td>(Eysenck &amp; Furneaux, 1945)</td>
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<td>Suggestions by misinformation</td>
<td>Source memory</td>
<td>event-misinformation-test paradigm</td>
<td>(Gudjonsson, 2003)</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td>(Gudjonsson, 1989)</td>
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<td></td>
<td></td>
<td></td>
<td>(Alexander et al., 2002)</td>
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<td></td>
<td>(Quas, Qin, Schaaf, &amp; Goodman, 1997)</td>
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<td>(Quas, Goodman, Ghetti, &amp; Redlich, 2000)</td>
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<td>(Quas et al., 1997)</td>
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dimensions (the model of the Self and the model of the Other). These models of Self and Other represent general expectations on the value of the self and the others’ availability to respond (Griffin & Bartholomew, 1994b). When the model of the Self is negative, the attachment anxiety is high. When the model of Other is negative, attachment avoidance is high. These two models can be used to explain the social behavior of individuals. Moreover, in various combinations, they describe four adult attachment styles: secure (low anxiety and low avoidance), anxious-preoccupied (high anxiety and low avoidance), avoidant (high avoidance and low anxiety), and anxious-fearful (high anxiety and high avoidance). The four attachment styles are prototypical strategies for controlling emotions in relationships (Griffin & Bartholomew, 1994a). Attachment style influences all social relations, functioning as an organizing principle for the dyadic regulation of emotions (Sroufe, 1996). Attachment style deals with the individual’s sense of personal value, his or her perception of how much one deserves to be loved, confidence that the hypothetical Other is willing or not to provide help, and support and comfort. These feelings influence the entire system of emotional and cognitive automatisms people set in motion in the interaction with the others (Griffin & Bartholomew, 1994a).

This purpose of this study was to investigate if people with different attachment styles respond differently to nonhypnotic suggestions. The suggestant (the target of the suggestion) holds important significant models on the personal value of the Self and the readiness and responsiveness of the Other. This will influence the magnitude of the person’s response to suggestion. Based on Lundh’s model (1998), the internal working models of attachment and, basically, attachment styles are structures of meaning. These structures are also activated while processing suggestive influences. Our hypothesis refers to dimensions as well as styles of adult attachment. It states that the person would invest the Self (according with his/her model of the Self and his/her anxiety) with less confidence when the anxiety level is high and the model of the Self is negative. On the other hand, a positive model of the Self will entail higher self-reliance (the Self as autonomous information source). This should render the individual less prone to peripheral information processing, the use of mental shortcuts in order to accept or reject a message based on irrelevant cues (Petty & Cacioppo, 1986). Moreover, when the model of the Other is positive, people are more likely to invest the Other with confidence as an information source, particularly in ambiguous situations. When the model of the Other is negative, avoidance is higher: The person overestimates autonomy and underestimates the Other as information source. In the latter situation, it is less likely for the Other to influence the individual through suggestion, when the Self chooses to process autonomously the suggestive stimulus. In fact, based on the dual models of social behavior, we hypothesized that
person’s overemphasis on autonomy would lead to a more frequent use of the reflexive system, partly avoiding the automatic (heuristic) ways, which, by themselves, could have generated response to suggestion. This hypothesis is in agreement with Bowlby’s idea (1973) that avoidant individuals have a special strategy for deactivating the attachment models in order to protect the Self.

We formulated hypotheses both in terms of dimensions and attachment styles: (a) Participants with a high level of attachment avoidance would be less influenced by suggestion than participants with low levels of attachment avoidance; (b) participants with a high attachment anxiety will be more influenced by suggestion than those with a low attachment anxiety; (c) anxious-preoccupied participants will be more influenced by suggestion than the secure participants; (d) anxious-preoccupied participants will record significantly higher scores to suggestion than the avoidant participants; (e) anxious-fearful participants will respond significantly more than the avoidant ones; and (f) secure participants will respond significantly more than the avoidant ones.

METHOD

Participants

The instruments were applied on a sample of 231 participants, students in various fields at the “Alexandru Ioan Cuza” University, the University of Agricultural Sciences and Veterinary Medicine and two high-schools in Iași. The average age was 20 years and 1 month (20.06), the median was 21 years, the minimal reported age was 17, and the maximal age was 31 years. The sample was composed of 169 women and 62 men. Of the total sample, 119 participants were high school senior students, and 112 were undergraduate students.

Materials

In the experimental recalling task, we used a classic paradigm event-misinformation test (Eysenck, 1943; Eysenck & Furneaux, 1945). We made one photo of several ordinary objects, placed next to one another. While looking at the image for 20 seconds, the participants were asked to remember the objects and their position. In the second stage of the task, the participants had to answer a series of questions containing hints at objects that were not shown in the photo (e.g., “Did you see the comb next to the cigarette?” when no cigarette was shown). The subject had to write on his or her answer sheet the words “Yes” or “No.” At the end of the task, the participants were asked to choose from a list of all the objects mentioned in the questions only those objects that
were actually shown in the photograph. After the pretesting, the list only comprised 32 objects allowing for a good discrimination among subjects, 11 of which were suggested. For the entire sample used in this study, the alpha coefficient for both the suggested and the real objects reached the value .74. We computed an index of the magnitude of the response to suggestion from the ratio between the objects that were unreal but reported by the subject (thus, suggested) and the number of real objects.

For the inkblot task, we recycled Eysenck’s idea (1943), and we made several inkblot drawings as follows: On a cling film, we applied some black ink and a few drops of alcohol, covering it with a sheet of drawing paper. For some of the drawings, we deliberately placed the color so as to obtain certain obvious shapes (e.g., basket, flower). We carried out a two-stage pretesting, and we confirmed, through frequency analysis, that the “obvious” drawings obtained a high number of similar answers. For the drawings without a definite shape, we selected only the rare answers occurring two or a maximum of three times. We thus ensured that the answer was not purely random, but it showed a small occurrence probability when the participants responded freely.

In the second stage of the pretest, we duplicated the task with the questions formulated explicitly, using either answers that had previously obtained a high frequency, in the case of the obvious shapes, or those with a low frequency, in the case of suggested shapes (e.g., “Many people see a flower in this inkblot. Can you see something similar to a flower?”). The answers “yes” and “no” were collected. Through the chi-square tests, we pointed out the drawings for which there was a significant difference between the frequency of the answers given spontaneously and the frequency of the directed (suggested) answers. The effect size (phi) varied from poor (.25) to strong (.62). In the stage of the study itself, the participants had to provide answers on six points scales, ranging from “I cannot see anything resembling . . .” to “I can see something almost identical with . . .”. The score in this task was given by the sum of agreements on the suggested shape (atypical) blots. The internal consistency of the scale comprising the blots with a suggested shape was $\alpha = .73$.

The circles task combined both the alleged information provided by an expert source (prestigious authors) and the effect of the mere expectancy on perception in line with its tradition regarding secondary and prestige suggestibility (Das, 1960; Stukát, 1958). The participants read about an alleged psychological effect discovered by two American researchers. This alleged effect involved that two circles were equal, although they were not. The discs were, in fact, identical, and they occupied each drawing together with a series of other drawings supposed to have a special effect. The participants were asked to “ignore the illusion” and to “assess,” in a percentage, the difference between the two
circles. Bogus names and scientific references were used. The participants were not allowed to use their hand or any other instrument to assess the difference between the two black disks on five different drawings. In a pretesting stage with 41 participants, we obtained an average of the perceived differences of 10.38, with a minimum value 0 and a maximum value of 36. On the data of the entire study, the internal alpha consistency for this task was \( .78 \).

The ECR–R adult attachment scales. In order to assess the attachment dimensions, the revised version of the Experience in Close Relationship questionnaire (ECR–R; Fraley, Waller, & Brennan, 2000) was used. The instrument was pretested on 550 students aged, on average, 23 years and 9 months (101 men and 449 women). After computing the factorial display of the ECR–R items, we preserved a short version of 22 items with good psychometric properties.

The procedure was based on two documents received by each participant. They were all provided with a book including the suggestion experimental tasks and an answer sheet.

Procedure

The tests were applied successively on several participant groups during classes. The researcher presented the procedure and the tasks, timing the span during which the participants were exposed to the photograph. The instruments were distributed in the room and, at the end, all the tasks raising cheating suspicions (e.g., the participants talked to one another) were silently invalidated.

Since the distributions were random, we decided to normalize the variables, so that they corresponded to the requirements of parametric tests. The normalizing procedures used were the natural logarithm and the square root of the score. The first division based on the attachment dimensions aimed at successive comparisons between the groups, in order to identify the possible differences. Through the percentiles 33 and 66, we encoded three groups (low, average, and high), which were later used in comparison tests between the differences in the averages.

Similarly, based on the percentiles 40 and 60, we also divided the participants into four prototypical groups according to the four adult attachment styles. The participants that did not respect, simultaneously, both criteria in anxiety and avoidance were excluded from the analysis on attachment styles.

Results

We will only present part of the statistical coefficients obtained, since a large amount of processing was carried out using the SPSS
16.0 software for the three suggestion tasks: three groups based on attachment anxiety, three groups based on attachment avoidance, and four groups based on attachment styles, both for the entire sample and separately for the undergraduates and the high school students.

We opted for the use of the standardized orthogonal contrast tests of Helmert and Difference. The one-way analysis of variance (ANOVA) for the recalling task, undergraduates’ sample, approached the significance threshold. We pointed out the fact that the high-anxious undergraduates reacted significantly less to the suggestive influence on recalling, compared to the other anxiety groups, \( t(112) = -2.39, p < .05, \text{Cohen’s } d = 0.51 \). The high-anxious undergraduates reacted significantly less to the suggestive influence on recalling compared to the average-anxious undergraduates, \( t(76) = 2.10, p < .05, d = 0.45 \).

The one-way ANOVA results for the groups based on attachment avoidance are given in Table 2. Through contrasts, we showed that the high-avoidant participants reacted significantly less to the suggestive influence on recalling compared to the other two avoidance groups, \( t(224) = 2.45, p < .05, d = 0.37 \). Likewise, the high-avoidant participants responded significantly less to suggestion, compared to the average-avoidant ones, \( t(152) = 2.11, p < .05, d = 0.32 \). For the sample of undergraduates, an ANOVA revealed significant differences only for the recalling task, but it also approached the significance threshold for the circles task (see Table 3).

The high-avoidant undergraduates reacted significantly less to the suggestive influence on recalling compared to the students in the other two avoidance groups, \( t(116) = -2.64, p < .05, d = 0.55 \), but significantly more than the other two avoidance groups in the circles task, \( t(116) = -2.23, p < .05; d = 0.43 \). We also pointed out that the low-avoidant

<table>
<thead>
<tr>
<th>Groups based on attachment avoidance</th>
<th>Low avoidance</th>
<th>Average avoidance</th>
<th>High avoidance</th>
<th>( F )</th>
<th>( \eta^2_{\text{gen.}} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recalling</td>
<td>-1.46</td>
<td>-1.47</td>
<td>-1.71</td>
<td>2.967*</td>
<td>.033</td>
</tr>
<tr>
<td></td>
<td>(0.52)</td>
<td>(0.67)</td>
<td>(0.67)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circles</td>
<td>1.50</td>
<td>1.45</td>
<td>1.63</td>
<td>0.527</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>(0.96)</td>
<td>(0.99)</td>
<td>(1.20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inkblots</td>
<td>-0.01</td>
<td>0.15</td>
<td>0.01</td>
<td>1.102</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>(0.75)</td>
<td>(0.65)</td>
<td>(0.78)</td>
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</table>

*Note. The standard deviation is written within parentheses under the mean. *\( p < .05 \).
Table 3
One-Way ANOVA Results Corresponding to the Avoidance-Based Groups for the Three Suggestion Tasks (Only Undergraduates)

<table>
<thead>
<tr>
<th>Groups based on attachment avoidance</th>
<th>Low avoidance</th>
<th>Average avoidance</th>
<th>High avoidance</th>
<th>F</th>
<th>$\eta^2_{\text{gen.}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recalling</td>
<td>-1.39</td>
<td>-1.58</td>
<td>-1.87</td>
<td>4.013*</td>
<td>.082</td>
</tr>
<tr>
<td></td>
<td>(0.57)</td>
<td>(0.78)</td>
<td>(0.69)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circles</td>
<td>1.46</td>
<td>1.70</td>
<td>2.00</td>
<td>2.885</td>
<td>.051</td>
</tr>
<tr>
<td></td>
<td>(1.07)</td>
<td>(0.78)</td>
<td>(0.89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inkblots</td>
<td>0.03</td>
<td>0.18</td>
<td>0.08</td>
<td>0.483</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>(0.76)</td>
<td>(0.65)</td>
<td>(0.76)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The standard deviation is written within parentheses under the mean.
* $p < .05$.

students reacted significantly more to the suggestive influence on recalling, compared to the other avoidance groups, $t(116) = 2.21$, $p < .05$, $d = 0.46$, but significantly less to the circles task, $t(106) = -2.02$, $p < .05$, $d = 0.39$.

In order to make comparisons between the attachment styles, we distributed the participants considering the extremes in both attachment dimensions. In the ANOVA results for the recalling task, the Fisher index approached the significance threshold, $F(3, 108) = 2.26$, $p = .085$. The securely attached participants responded significantly more to the suggestion on recalling compared to the fearful and avoidant participants taken together, $t(142) = 2.05$, $p < .05$, $d = 0.39$. The fearful attached participants responded significantly less to the suggestion on recalling compared to the secure and preoccupied participants taken together, $t(107) = -2.13$, $p < .05$, $d = 0.41$. Likewise, the preoccupied participants responded significantly more to the suggestive influence on recalling, compared to the avoidant participants, $t(62) = 1.93$, $p = .056$, $d = 0.37$.

Through the analysis separated on the two groups of participants (undergraduate students and high school students), we noticed that the high school students with a preoccupied attachment style responded significantly more to the suggestive influence on recalling, compared to the secure high school participants, $t(28) = 2.03$, $p < .05$, $d = 0.60$. For the sample of undergraduates, the one-way ANOVA results proved to be significant only for the recalling task, $F(3, 61) = 3.31$, $p < .05$. All these results are given in Table 4.

The securely attached undergraduates were significantly more influenced by suggestion compared to the avoidant, fearful, and preoccupied ones taken together, $t(78) = 2.46$, $p < .05$, $d = 0.61$. The securely attached undergraduates were significantly more influenced
Table 4
One-Way ANOVA Results for the Groups Based on the Attachment Style (Only Undergraduates)

<table>
<thead>
<tr>
<th>Groups based on the attachment style</th>
<th>Secure</th>
<th>Avoidant</th>
<th>Fearful</th>
<th>Preoccupied</th>
<th>F</th>
<th>$\eta^2_{\text{gen.}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recalling</td>
<td>−1.17</td>
<td>−1.76</td>
<td>−1.86</td>
<td>−1.42</td>
<td>3.314</td>
<td>.140</td>
</tr>
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<td></td>
<td>(0.59)</td>
<td>(0.67)</td>
<td>(0.91)</td>
<td>(0.57)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circles</td>
<td>1.48</td>
<td>1.97</td>
<td>1.95</td>
<td>1.72</td>
<td>1.255</td>
<td>.052</td>
</tr>
<tr>
<td></td>
<td>(1.01)</td>
<td>(0.98)</td>
<td>(0.74)</td>
<td>(0.85)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inkblots</td>
<td>−0.09</td>
<td>0.19</td>
<td>0.08</td>
<td>0.26</td>
<td>0.921</td>
<td>.035</td>
</tr>
<tr>
<td></td>
<td>(0.89)</td>
<td>(0.66)</td>
<td>(0.53)</td>
<td>(0.60)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The standard deviation is written in parentheses under the mean.

$p < .05$.

by suggestion on recalling compared to the avoidant ones, $t(40) = 2.40$, $p < .05$, $d = 0.59$. The securely attached undergraduates were significantly more influenced by suggestion on recalling compared to the fearful and avoidant undergraduates considered together, $t(64) = 3.00$, $p < .01$, $d = 0.76$.

The fearfully attached undergraduates were significantly less influenced by suggestion compared to those with fearful and avoidant attachment styles taken together, $t(57) = 2.61$, $p < .05$, $d = 0.65$. The fearfully attached undergraduates were significantly less prone to suggestive influence compared to the other attachment styles, $t(78) = 2.09$, $p < .05$, $d = 0.51$. The fearfully attached undergraduates were significantly less influenced by suggestion compared to the securely attached undergraduates, $t(43) = 2.09$, $p < .01$, $d = 0.72$.

Discussion

This purpose of this study was to investigate if people with different attachment profiles respond differently to nonhypnotic suggestions. Some of the results support the general hypothesis that people with different attachment styles differ in suggestibility. We analyzed our data together but also for undergraduate students and high school students separately. We obtained significant differences particularly for the memory task. The most important effect we identified through orthogonal contrasts is that the securely attached undergraduates were significantly more influenced by suggestion when recalling a list of objects than were those with fearful and avoidant attachment styles considered together. This result partially supports the hypothesis that low levels of attachment avoidance make people react more to suggestion. The
avoidant and the fearful attachment styles share a negative model of the Other but have different models of Self, which is positive for the avoidant style but negative for the fearful style.

According to the presented theory of adult attachment (Bartholomew, 1990; Bartholomew & Horowitz, 1991; Hazan & Shaver, 1994), the avoidance dimension illustrates a model of the Other in relation with the Self. Towards the Other, the individual can grow a feeling of security or insecurity. Perceiving the Other as open and as willing to provide help and support generates a strong feeling of closeness or avoidance towards him or her. Contrary to our hypotheses, the fearfully attached undergraduates in our study were significantly less influenced by suggestion than were the securely attached undergraduates. This might mean that high levels of attachment anxiety are not related to high levels of suggestibility, but on the contrary it is the low levels of attachment anxiety that makes people less suggestible. This result matches the significantly negative relation between the old conceptualization of ambivalent attachment in adults and reliance on the partner (Fuller & Fincham, 1995). Contrary to our hypothesis, attachment anxiety drove distrust in the Other.

Undergraduates with anxious-fearful attachment style were significantly less influenced when recalling the list of objects compared to the securely attached and the preoccupied students taken together. This opposition (fearful vs. secure and preoccupied styles) was identified in previous studies. These studies concern the level of reliance in the others, self-revealing, intimacy, romantic involvement, and using the others as a secure basis against distress, variables likely to moderate the relation under discussion (Bartholomew & Horowitz, 1991). The preoccupied participants share in common with the fearful ones a high attachment anxiety. Nevertheless, the difference also occurs in this contrast, supporting thus the possible explanation of the importance attachment avoidance has in the relation to suggestion in the memory task. Moreover, the securely attached undergraduates were significantly more influenced by the suggestion on recalling compared to the avoidant ones. This supports our statements from above, and our hypothesis concerning more resistance towards suggestion of people with avoidant attachment styles compared to people with preoccupied attachment style.

Our results are consistent with some previous research showing that securely attached persons rely more on significant persons than insecure people (Mikulnicer, 1998). The avoidant person, however, because of his or her history of frequent rejections and physical affection inhibitions or intimate expression of emotions, develops a strategy of deactivating the attachment system. These experiences lead the person to avoid closeness, to become very self-reliant, and to develop a habit of controlling anxiety by constant distraction (Hazan & Shaver, 1994).
The results supported our hypothesis that the securely attached participants would be significantly more influenced by the suggestion on memory task than would participants with the other attachment styles. Nevertheless, this result does not support the hypothesis that people with preoccupied attachment style would be the most suggestible. We predicted that the securely attached participants would be less suggestible than the preoccupied participants, due to lower anxiety and a better model of the Self but more suggestible than the avoidant participants, who are characterized by higher avoidance and a negative model of the Other. We can explain this result by the classical research on adult attachment, where the securely attached obtained the highest score for intimacy (Bartholomew & Horowitz, 1991). Consequently, the reliance on the Other could be more important in the reaction to suggestion, compared to the negative model of the Self.

The explanations given so far match the result according to which the high avoidant participants recalled the objects more accurately than did the participants in the two other avoidant groups. We can also include here the effect according to which the undergraduates with low attachment avoidance reacted significantly more to the suggestive influence on recalled objects compared to the undergraduates in the other two avoidant groups. Equally, high avoidant participants (in terms of effect size) responded significantly less to suggestion compared to the average avoidant ones. There seems to be an inverse relationship between the dimension avoidance and the memory’s suggestibility to misinformation procedures, although no significant correlation was identified between these two dimensions.

The fearfully attached students were significantly less influenced by the suggestion on memory compared to the secure, preoccupied, and avoidant students taken together. This does not support the hypothesized resistance towards suggestion of avoidant attached individuals compared to fearfully attached ones. The participants with fearful attachment style in our study proved to be less suggestible in the recalling task compared to all the other attachment styles considered together, while the securely attached participants were more suggestible than all the other three attachment styles. It seems that attachment anxiety influences suggestibility in the opposite way than what we predicted. We hypothesized that those with high level of attachment anxiety would be more suggestible. This finding suggests there are global tendencies to distrust others in the insecure attachment styles, compared to the secure ones, regardless of the attachment dimensions. We can consider the fearful attachment (with both models, of the Self and of the Other, negative) opposed to the prototypical secure participants (with both models positive).

The preoccupied participants in our study were more suggestible than were the avoidant ones. The effect was quite modest but is valid for
the entire sample of participants. This effect supports what we expected from individuals with high levels of attachment anxiety. We supported the opposition identified by Bartholomew and Horowitz (1991), who showed that the participants with preoccupied attachment style differ from those with avoidant style in almost all the variables of their study. The avoidant attachment style differs from the other styles of adult attachment by the fact that, although the model of the Self is positive (low anxiety), the Other is not perceived as willing to help and provide comfort (high avoidance, negative model of the Other).

Our results for the stimulus-misinformation-test task support, to a high extent, previous conclusions. For example, Collins and Read’s attachment conceptualization factors (1990) Closeness and Dependency correlate in a significant and positive way with the interpersonal trust scales. In fact, the three initial attachment styles have a significant effect on the results of this scale (Collins & Read, 1990). The avoidant participants are characterized by low capacity to rely on others but high self-reliance (Bartholomew & Horowitz, 1991).

One of the moderated effects we identified was that the participants (high school students) with preoccupied attachment styles were more suggestible to misinformation than the securely attached ones. This result is the only one supporting the hypothesis that preoccupied attachment style might be the most suggestible. This explanation is also supported by the classic description of the anxious-ambivalent attachment. In some experimental settings, for example, children with this style seem to be both anxious and angry and are concerned with the attachment figures to the detriment of exploration (Hazan & Shaver, 1994). Some results from the literature show that the preoccupied participants recorded the highest score in the level of trust in others. Thus, the level of interpersonal trust may significantly predict the tendency to respond to suggestion, without this being the sole predictor. This would explain why the secure participants scored higher in suggestibility compared to the preoccupied ones, since, compared to the latter, the secure participants also benefit from a high level of intimacy within friendships (Bartholomew & Horowitz, 1991).

When the individual has a negative model of the Self, (s)he also doubts himself/herself regarding his/her personal value. This model of the Self generates a feeling of fundamental uncertainty and a permanent pursuit of confirmation from the Other. In fact, regarding the early maladaptive schemas in adults, recent studies identify considerably higher levels of dependence/incompetence in the participants with preoccupied attachment styles compared to the secure ones (Simard, Moss, & Pascuzzo, 2011). Our hypothesis was based on this key element. The anxiously attached individual tends to seek confirmation in the relation with the Other, depending thus on his/her feedback. We supposed that the feeling of uncertainty with respect to the personal value also
expands over the trust towards the Other in ambiguous situations, thus being more suggestible.

Nonetheless, the most representative group of effects that are incongruent with our hypotheses refers to attachment anxiety. We expected that the high levels of attachment anxiety were connected to high levels of suggestibility. We based our expectations on a model of the negative Self that increases the individual’s tendency to seek information in the Other. This hypothesis was confirmed only in the case of the high school students. On the contrary, some effects, although rather modest, indicate a decrease in the response to suggestion with the increase in the level of attachment anxiety. A moderate effect identified showed that the high anxious undergraduates were less suggestible compared to the two other anxiety groups. Although we did not identify any significant correlation between the recalling task and the scores obtained for the anxiety subscale, increased anxiety seems to relate with smaller scores in suggestibility. Corroborating these results, we can better understand why the participants with fearful attachment style (high anxiety, high avoidance) show such a stronger contrast effect compared to the other attachment styles, as far as the recalling task is concerned.

A possible explanation could be found again in the classic literature on attachment. Our hypothesis was that the need for information characteristic to the person with preoccupied style was expected to render him/her more suggestible. However, some authors draw attention to a special strategy associated with the inconsistent responsiveness of the attachment figure. The anxious-ambivalent (preoccupied) participants are characterized by a lack of trust in the others’ responsiveness consistency. These individuals invest a constant effort in keeping the other close and engaged in the relationship. This is also manifest in an intense expression of distress and anger and through diminished exploration. It is likely that distrust affects interpersonal relations in the preoccupied adults as well (Hazan & Shaver, 1994). Another explanation could reside in the theoretical basis of the adult attachment description and measurement. Several studies using the ECR–R adult attachment scale confirmed a significant and moderate correlation between the two subscales illustrating the two attachment dimensions, a correlation that was also found in our pretests. This supports the position of the authors of the model. They argue that a style-based approach could entail an explanatory and predictive advantage compared to a size-based approach, without accurately settling which of the two concurring solutions is the best (Griffin & Bartholomew, 1994a). An insecure attachment may also involve decreases both in the model of the Self and in the model of the Other. Also, these modifications are likely to emphasize each other. This could explain our results, which have not identified the expected relationships between the response to suggestion and the anxiety dimension. We could thus explain why, for the task of suggestibility
on memory, the fearful participants showed the lowest suggestibility compared to the other attachment styles, while the secure participants showed the highest suggestibility.

**Limitations**

First, the investigated population comprised undergraduate students and high school students, which does not allow for a generalization of the results to the general population. In addition, the gender-based distribution of the sample is unbalanced; the number of women prevailing over the number of men.

Second, the suggestion tasks represent a pioneering endeavor. For instance, although experimental and in line with the tradition of the misinformation effect on recalling, the way in which the recalling task renders the recalling suggestibility of the participants cannot guarantee complete accuracy. For this task, we were able to carry out an item analysis and to choose false objects with a good discrimination among the participants. The inkblot task also followed the traditional path of Eysenck and Furneaux (1945), who used Rorschach stimuli. We used inkblots that we made ourselves, pretested on relatively reduced samples but we made sure that there was an effect of suggestion on the perception of these inkblots.

Finally, the circles task is an approach inspired from the tradition of suggestion (e.g., Stukát’s, 1958, secondary suggestibility), being a pioneering intervention. During this task, we noticed that there was a suggestion effect, the participants noticing, on average, differences of 11% in the disk pairs. Nevertheless, the task proved to be too aggressive, as we could also see from the score distribution, which leaned radically to the left. According to the dual model of behavior we used in the initial assumptions, the circles task easily stirred the participants’ suspicions. This drew the intervention of the supervising (reflexive) system in perception and the doubt that there was, indeed, a difference.

Last, but not least, we should not neglect a possible effect of the experimenter’s gender. The male experimenter (and his male assistant) might have influenced—in an uncontrolled way—the results of the participants, who were, for the most part, women.

**Conclusion**

The present study aimed to explore the possible connection between adult attachment styles and suggestibility. As expected, the results suggest a possible connection between attachment avoidance and a reduced suggestibility. This could be explained by the fact that attachment avoidance involves an overestimation of personal competence.
This reduces the effect of suggestion as a semiautomatic form of processing based on the cues from other people. On the other hand, contrary to our expectations, the results would suggest that higher attachment anxiety also causes a decrease in suggestibility. This renders people with anxious-fearful attachment style the least responsive to suggestions and the secure participants the most responsive to suggestion. We could explain this by the fact that a higher anxiety does not involve higher reliance on the Other as compensation for a negative model of the Self. On the contrary, the instability of the attachment figures is likely to generate the feeling that the others’ responsiveness is unpredictable, which leads to a marked distrust expressed in all social relations of the adult. Overall, the results are not entirely consistent with any of the explanations. Further studies could interpose possible moderating variables in the relation between suggestion and attachment.

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**References**


**Anhang und Suggestions-bezogene Phänomene**

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**L’attachement et les phénomènes liés aux suggestions**

**Tudor-Ștefan Rotaru et Ion Dafinoiu**

Résumé: Cette étude utilise une nouvelle classification de phénomènes liés aux suggestions et examine la relation qui existe entre les styles d’attachement et la réaction à une suggestion hypnotique. Les auteurs se
sont servis de trois tâches expérimentales traditionnelles : une tâche de désinformation relative au stimulus, une tâche de perception par tache d’encre et une tâche d’estimation subjective de différence inexistante. Une mesure de l’attachement adulte a également été prise. Les participants ayant un sentiment élevé d’insécurité de l’attachement ont été moins influencés par les suggestions hypnotiques durant la phase de rappel de la tâche de mémoire que ceux ayant un faible sentiment d’insécurité. Les résultats sont abordés dans le cadre des modèles de suggestions hypnotiques, des modèles dualistes de comportement social et du modèle de l’attachement adulte. Les implications de ces découvertes sont limitées à la simple suggestion plutôt qu’à l’ensemble plus complexe de réactions liées à l’hypnotisabilité.

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Fenómenos relacionados con el apego y la sugestión

Tudor-Ștefan Rotaru y Ion Dafinoiu

Resumen: Este estudio utiliza una nueva clasificación de fenómenos relacionados con la sugestión e investiga la relación entre los estilos de apego y la reacción a la sugestión. Los autores utilizan tres actividades experimentales tradicionales: una actividad de estímulo desinformación, una actividad de percepción de mancha de tinta, y una actividad de estimación subjetiva de una diferencia no existente. También se midió el apego en el adulto. Los participantes con una alta inseguridad de apego, en contraposición a aquellos con baja inseguridad, resultaron menos influenciables por las sugestiones en la fase de recuerdo de la actividad de memoria. Los resultados se discuten dentro del marco teórico de los modelos de sugestión, los modelos dualistas de comportamiento social, y el modelo de apego en el adulto. Las implicaciones de los resultados están limitadas a la sugestión simple en vez de al conjunto más complejo de respuestas relacionadas con la hipnotizabilidad.

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