Annotated Bibliography: False Memories Research

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Alakbarova, D., Hicks, J. L., & Ball, B. H. (2021). The influence of semantic context on false memories. Memory & Cognition, 49(8), 1555-1567. <https://doi.org/10.3758/s13421-021-01182-1>

The above article examines the frequency of false memories based on the semantic context (“meaning”) of sentences. In three experiments, participants were exposed to both sentences with meaningful context, and meaningless sentences. Every experiment involved creating sentences using words from a themed list, and showing them to subjects. Researchers concluded that subjects were more likely to have memory mistakes when exposed to a meaningful sentence, as the latter caused to make a relational, rather than an item-based connection. This means that, instead of focusing on the “image” part of a sentence, the participant’s mind focuses on its meaning, increasing the chances for error. Although the study itself is quite comprehensive, it could become larger if it is expanded to other age groups. The subjects here were 32 college students, but it would be interesting to also see how semantic sentences affect, for example, millennials. Although not necessarily a weakness, it is rather a suggestion. Overall, this article positions itself well, having separate sections about every experiment, methods, results, etc. It is peer reviewed, and offers statistical data, making it quite useful.

Cohen, A., Silverstein, M. J., Derksen, D. G., Hamzagic, Z. I., Bernstein, D. M., & Stephen Lindsay, D. (2020). Future planning may promote prospective false memories. Journal of Applied Research in Memory and Cognition, 9(2), 242-253. <https://doi.org/10.1016/j.jarmac.2020.02.004>

In the above article, Cohen et al (2020) examine memory clarity among participants to determine if future intentions have any correlation with false memories. The authors first explain the concept of prospective memory (PM), which is the human ability to remember tasks to be done in the future. They then proceed to talk about the ways in which PM is usually studied, and describe their own experiment. The conclusion was reached that the participants had a clearer memory for tasks that they intended to execute, rather than tasks they had cancelled. The study itself was done in a very intriguing way: Rather than using complicated scientific tools, the participants created and executed tasks through the board game *Taboo*. Although this approach may seem unprofessional, it may prove effective due to a more “natural” study environment (as opposed to an “artificial” demonstration of images). This “fresh perspective”, along with measurable, clear number variables and charts included in the results, makes this article suitable for my research. What I am very critical about is when the article seems to imply that the participants rated their own clarity of memory. This could be a major weakness for the study, as the subjects rating themselves may produced biased results.

Dang, X., Zhu, B., Chen, C., & Li, X. (2020). Age differences in false memories for visual scenes and the effect of prior recall. Journal of Pacific Rim Psychology, 14, e4. <https://doi.org/10.1017/prp.2019.26>

The above article, written by Dang et al (2020) presents a very intriguing false memory study, particularly one relating to the influence of age on false recognition. The authors first explain the difference between spontaneous and suggestive false memories. They then discuss the findings of previous studies, and the psychological tools (such as the DRM paradigm) that were used to conduct them. Through a series of experiments, where 80 child participants were asked to associate visual elements with themes, the researchers concluded that children had lower false recognition rates after being asked to recall what they were shown (“prior recall”) than older adults, where false recognition was actually higher. However, it was also found that adults have an increased true recognition (recognition of things that actually happened) after prior recall as well. This article is interesting on many levels, but the most intriguing part is the hypothesis itself. Knowing which age group is more prone to false memories can prompt researchers to examine the neurology of the group more thoroughly, getting closer to the truth of where these memories actually come from. This, along with the many terms and concepts explained there, makes it a suitable article for my research. The only problem may be the relatively insignificant weakness of the article in that the images shown may hold a different meaning to each age group, and that more groups (ex. Young adults) may need to be included for better results.

Knott, L. M., & Shah, D. (2018). The effect of limited attention and delay on negative arousing false memories. Cognition and Emotion, 33(7), 1472-1480. <https://doi.org/10.1080/02699931.2018.1556153>

In this article, Knott & Shah (2018) examine the effect of rapidly demonstrating stimuli on negative arousing false memories. Their study concluded that when the subject has less time to encode a stimulus, the negative false memories associated with it become more frequent. A very interesting detail about this study is that the stimuli shown to participants were separated into more specific categories, such as “weak related distractions”, “weak fillers”, and “unrelated distractions”. This gave the study a much more narrow focus, and it is exactly why I would choose it for my research. It not only contains credible information from previous studies, but also provides clear statistical measures for the result of every category, giving plenty of evidence to back up its claim. It even includes a comprehensive table and graph, effectively summarizing all of its results, and making them easier to use. The strength of this study is that it uses participants of a very diverse age group (from 18 to 56), making its results widely applicable. I am only slightly concerned about the imbalance of genders in the experiment (47 females and 21 males), as this gender imbalance may bias the results [read article summary below].

Spets, D. S., Karanian, J. M., & Slotnick, S. D. (2021). False memories activate distinct brain regions in females and males. Neuroimage: Reports, 1(4), 100043. <https://doi.org/10.1016/j.ynirp.2021.100043>

In this article, Spets et al (2021) examine the influence of certain brain regions on false memories, as well as how this influence differs between males and females. This was done through a study composed of four experiments, where 40 females and 18 males had their false memory rates compared. Previous studies are also used in the article, showing how different areas of the brain relate to both true and false memories. Each of these areas are named. Researchers concluded that the false memory gender differences are in fact very real, and that each sex has different ways of retrieving them. On the other hand, confirming some previous studies, they found no differences in behavior among the participants, proving that sex was the main factor affecting these differences. In general, this article seems very effective for the purpose of my study, as it approaches the “false memory” phenomenon from a neurological perspective, naming various components of the brain, and citing peer-reviewed studies. The only weaknesses this article may have is the imbalance in the number of males vs. females in some experiments, and the fact that data was not collected simultaneously.