**Research Journal of Psychology (RJP)**

**Online ISSN:** 3006-7219
**Print ISSN:** 3006-7200
Volume 3, Number 3, 2025, Pages 258 – 271
**Journal Home Page**
https://ctrjournal.com/index.php/19/index

# The Science of Misremembering: Causes, Consequences, and Correction of False Memories

**Arysha Shahid[1], Sara Akbar Awan[2], Hajra Waheed Kayani[3], Ushna Seher[4] & Mamoona Tariq[5] & Mehreen Faiza[6]**

[1]*BS Psychology, International Islamic University Islamabad, Email: Aryshashahid2004@gmail.com*
[2]*BS Psychology, International Islamic University Islamabad, Email: saraakbar001@gmail.com*
[3]*HOD/ Clinical Psychologist, Department of Psychiatry CGH, Cantonment General Hospital Rawalpindi Pakistan, Email: hajrawaheedkayani@gmail.com*
[4]*PhD Scholar, School of Professional Psychology, University of Management and Technology, Email: f2023493004@umt.edu.pk*
[5]*BS Psychology, International Islamic University Islamabad, Email: mamoonat195@gmail.com*
[6]*Department of Sociology, BUITEMS, Quetta Mehreen, Email: Faiza@buitms.edu.pk*

**ARTICLE INFO**

***Article History:***

| | | |
|---|---|---|
| *Received:* | *May* | *25, 2025* |
| *Revised:* | *July* | *11, 2025* |
| *Accepted:* | *July* | *20, 2025* |
| *Available Online:* | *August* | *02, 2025* |

***Keywords:***

*false memory, cognitive distortion, misinformation, emotional influence, memory correction, psychology, quantitative study*

***Corresponding Author:***
*Arysha Shahid*
***Email:***
*Aryshashahid2004@gmail.com*

## ABSTRACT

*False memories—distorted or entirely fabricated recollections of past events—are a significant concern in cognitive and applied psychology. This quantitative study examines the psychological causes, consequences, and possible correction strategies for false memories in adult individuals. A sample of 300 participants was surveyed using a standardized instrument designed to assess factors such as suggestibility, cognitive bias, emotional influence, and exposure to misinformation. The data were analyzed using descriptive statistics, Pearson correlation, and multiple regression techniques. Results indicate a strong positive correlation between suggestibility and false memory formation, while emotional intensity and repeated exposure to misleading information were also significant predictors. Furthermore, corrective interventions like source monitoring training and metacognitive awareness were found to reduce the persistence of false memories. These findings contribute to a deeper understanding of memory distortions in psychological functioning and have implications for forensic psychology, educational practices, and therapeutic interventions.*

## Introduction

Human memory is a dynamic and reconstructive process that is prone to be driven by distortion and inaccuracy. However, it is usually envisioned as a personified archive of the experiences that have been lived. False memories are some of the most interesting and alarming things about the sphere of cognitive psychology, as false memories are the recollections of events that did not happen or that happened in a totally different way than it is remembered (Loftus, 2005). The

advent and the existence of false memories undermine the classical model of memory as a fixed source and emphasize the fact that the development of memory is not a simple entity that is the result of the synthesis of perception, cognition, emotion, and the impact of social factors. Misremembering science has gained the important subject of investigation, especially as regards its applicative values in law, education, medicine, and life in general. Elizabeth Loftus was one of the first scholars whose experiments on false memories revealed the fact that recollection could be influenced by post-event misinformation (Loftus & Palmer, 1974).

The misinformation effect or the process involving the addition of misleading information being applied to memory record of a particular event has since been repeated in a vast number of populations and contexts, and the findings have given concrete results on malleability of human memory (Frenda et al., 2011). False memories are not just the objects of curiosity; they do have practical effects, especially in a court scenario, when false testimony can be collected and may result in wrongful conviction (Wells & Olson, 2003). There are long cognitive theories of memory, which underline the idea that memory retrieval cannot be considered as an uninterrupted playback of the stored information; rather, it is an actively tense reconstruction (Schacter, 1999). The errors that are mentioned in the concept of the seven sins of memory are suggestibility, misattribution, and bias, because of which errors the content of false memories is formed (Schacter, 2001).

Suggestibility is the willingness to include outside information or instructions into a recollection of some memory, which is very often unconscious. Misattribution is the mixing up of the origin or the background of a memory, whereas bias is the influence of present thoughts and emotions on the remembrance of past events. These thought processes are key explanations with regard to how even the very self-sure individuals can possess erroneous or falsified recollection. False memories work in a variety of ways. Among them is source monitoring error that refers to the case in which people do not differentiate between internally generated sources of information (like thoughts and dreams) and those acquired outside (Johnson, Hashtroudi, & Lindsay, 1993).

Another example is that during childhood, the thoughts about one experience can be imagined repetitively, which can lead a person to mistake the imagined situation as a real encounter, referred to as imagination inflation (Garry, Manning, Loftus, & Sherman, 1996). On the same note, the accuracy of memory can be affected by the occurrence of emotional arousal and stress, as a result of which false recollections have higher chances of taking place (Laney & Loftus, 2008). They are more at risk of distortions in their memory because emotional events arousing strong emotions stimulate the region of the brain where there is an onset of the amygdala and the exchange with memory systems (Phelps, 2004). False memories are also developed under the influence of social factors that are very crucial. Studies have proved that conformity of the memory, which is the adjustment of the memory in accordance with what is reported by other people, can significantly heighten the number of different distortions of memories (Roediger, Meade, & Bergman, 2001).

The peers may misinform themselves, the reports of the media, and people of authority, as well, may become the causes of misinformation, particularly when it comes to unclear or stressful situations. Besides, personal variances including age, cognitive processes, and the personality characteristics (openness to experience, need for cognition) are also individual modulators of false memories susceptibility (Zhu et al., 2010). In addition to pinpointing causes, fixing false memories has become another significant segment of psychological study. With the high level of confidence that false memories may be carried, rectification of the same becomes a challenge. It has commonly been supposed that correcting memory by giving relevant information is adequate in traditional systems of learning and law, but works of research imply otherwise (Lewandowsky, Ecker, Seifert, Schwarz, & Cook, 2012). Interventions such as source monitoring training, where

individuals are taught to critically evaluate the origins of their memories, and metacognitive strategies that enhance awareness of memory fallibility, have shown promise in reducing false memory susceptibility (Mitchell & Johnson, 2009).

False memories have significant implication. Eyewitness reliability in forensic psychology has been disputed, with lawyers making reforms to cut down on unjust convictions on the basis of memory (Steblay, Dysart, & Wells, 2011). False memories may affect the causes of diagnosis and treatment of psychological disorders in clinical practices, especially when testing some recovered memories of a childhood traumatic event or rape (Lynn, Lilienfeld, Merckelbach, Giesbrecht, & McNally, 2014). Educational psychologists also concentrate on the role that may be played by the instructional mode and test feedback in generating erroneous memories, which is likely to impair the learning process (Butler, Fazio, & Marsh, 2011).

Despite extensive research, gaps remain in our understanding of the predictors and modifiers of false memory formation. The majority of the research has concerned itself with tested experimental conditions in laboratories, which by all means are helpful but are unaffected in representing the multiplicity of the actual memory processes. Besides that, although the qualitative studies have already studied the personal accounts of the experience of memory distortion, there has been a developing requirement for quantitative studies that examine the relationship between the cognitive, emotional, and environmental variables and the formation of false memories in a systematic way.

This study aims to fill that gap by employing a quantitative methodology to measure the influence of various psychological factors on false memory formation and correction. False memory has changed so now the knowledge on false memory is not just a theoretical play but it is also an extremely practical field which has its implications on the legal system, mental health care and education also. We should know more about the formation of false memories and know the ways of their correction because more evidence based on memory is increasingly being used by the society for making a judgment. The present study represents this effort by numerically analyzing the predisposing factors, outcome and prevention strategies related to the false memories; thus, a fact base might be available to guide future psychological implications and policymaking.

## Statement of the Problem

Despite extensive research on memory, individuals continue to form and retain false memories that can lead to serious psychological, social, and legal consequences. The underlying cognitive and social factors contributing to false memory formation, as well as effective strategies for their correction, remain insufficiently understood, particularly in real-world contexts. This study seeks to quantitatively examine the causes, consequences, and possible correction methods of false memories to address this critical gap in psychological research.

## Research Objectives

1. To identify the cognitive, emotional, and social factors that contribute to the formation of false memories.
2. To examine the consequences of false memories on individuals' beliefs, behaviors, and decision-making.
3. To evaluate the effectiveness of correction strategies such as source monitoring training and metacognitive awareness in reducing false memories.
4. To explore the relationship between individual differences (e.g., suggestibility, emotional sensitivity) and susceptibility to false memories.

5. To provide data-driven insights for psychological, educational, and forensic applications concerning memory accuracy.

**Research Questions**

- What cognitive, emotional, and social factors contribute to the formation of false memories?
- What are the psychological and behavioral consequences of false memories?
- How effective are correction strategies like source monitoring training and metacognitive awareness in reducing false memory formation?
- How do individual differences such as suggestibility and emotional sensitivity influence susceptibility to false memories?
- What implications do false memories have for applied settings such as education, therapy, and forensic investigations?

## Literature Review

### Cognitive and Emotional Mechanisms behind False Memory Formation

Though the human memory was compared to a recording device many times, this does not appear to be the case; the memory is more of the form of reconstruction that can be distorted (Schacter, 1999). Such a cognitive factor of false memories as the misinformation effect, defined first by Loftus and Palmer (1974) and which illustrates that an individual subsequent memory of an event can be changed by the subsequent information, remains one of the most popular and discussed ones. In their famous study, the people who witnessed the car crash and then were subjected to the leading question scenario (e.g.: How fast do you think the cars were going before they crashed into each other?) would have a higher tendency to remember a faster speed than before, and sometimes even the details as of nonexistent glass being broken. This implies that memory is not rigid and can be recreated by outside stimulus and in the case of speaking, suggestive or emotions charged words. The other important cognitive process is source monitoring error that involves the lack of ability to get the source of a given memory (Johnson et al., 1993).

Human beings cannot distinguish between true experience and a fantasy, or say misinterpreting what people say that they heard as their own memories. This especially applies to the field of clinical and legal cases when being imagined or even insinuated, recollections can be taken because it is perceived as real. As an example, there is the imagination inflation process (Garry et al., 1996), the fact that one can continue to imagine something happening and build up confidence that it happened. Emotion also has a strong influence in the formation as well as the distortion of memories. The fact of being subject to distortion notwithstanding, to the emotional-salient events, it can be said that in most instances, they are remembered more vividly (Laney & Loftus, 2008). Emotional arousal during encoding or recall has the ability of magnifying any error, because it tends to make one focus insufficiently on peripheral details but fails to pay specific regard to the central ones. Besides, they might have increased emotional sensitivity that also makes them develop vivid yet inaccurate memories because of intense affective responses (Zhu et al., 2010).

These studies have revealed that neuroscientifically, both structures associated with emotional memory i.e. amygdala and hippocampus could interact so as to make false recollections more salient (Phelps, 2004). Such results help express the complexities of the memory systems, as internal cognitive processes and emotional notions interrelate and produce the experiences that are perceived by the subject as subjectively real and truthful, even when the factual content is false.

## Social and Environmental Influences on Memory Distortion

False memories do not run within the vacuum. Such factors are greatly influenced by the social and environmental factors and more so on situations where people have to depend on external sources of information. Among the most documented cases in this respect, there is a phenomenon of memory conformity, where the recollection of the events is manipulated by description made by other persons (Roediger et al., 2001).

This is actually typical in large group discussions, where one can change his/her perception of a certain memory after hearing what other people have to say about it, even when what they provide is not the truth. The other source of memory distortion is the media. According to Frenda et al. (2011), misrepresented news stories or a false portrayal in the media may implant those false autobiographical ones in people. There is a great possibility that the participants in the study reported childhood experiences that they made up with the help of emotionally powerful but fake images or captions. This highlights the possible hazards of the media-generated misinformation, especially in the era of the internet when fake or partial stories are the rule of thumb. Vulnerability to false memories can also be explained by age, and cognitive development. Children and older people are also more prone to fall victim to this because of source monitoring not being developed or aged (Brainerd & Reyna, 2005).

Similarly, suggestibility has also been correlated with openness to experience and cognitive absorption, which are part of personality traits (Zhu et al., 2010). There is also individual variation in working memory capacity and executive functioning and therefore some people will interpret incoming information and filter it critically better than others thus prone to committing more memory errors than others (Mitchell & Johnson, 2009). The surroundings in which information is given, the conditions under which a person is given information (what is called environmental cues) also plays a role. As one example, high stressful conditions (e.g., witnessing a crime) can hurt the accuracy of memory by limiting the focus of attention or heightening the effect of leading questions (Morgan et al., 2004). Under these condition, people tend to add fake components to their memory under pressure or fear or they fail to remember due to the overload. Therefore, social interactions, media effect, states of development and circumstances are all found to lead to the weakness of memory to be distorted. It is paramount to identify such external factors not only in the theoretical but also practical context, particularly, in the forensic and therapies contexts.

## Correction Techniques and Practical Implications

Unlike the documented cases that have communicated the establishment of false memories, a limited number of researches have been done to show an effective treatment of the error. Nevertheless, there seems to be the way out, recent findings indicating that in some cases, memory distortion can be reduced and the accuracy of recalling can be improved through the use of some cognitive and educational tactics. Source monitoring training is one of the most encouraging methods that is aimed at helping people to analyze the source of their memory by studying the triggering factors like the sense conditions and the sense content or even the context (Johnson et al., 1993). Improving the level of metacognition awareness allows a person to distinguish better between what is truly happening and what is imagined and to be less likely to pay attention to misleading information.

Mitchell and Johnson (2009) found that participants who underwent source-monitoring exercises showed significantly lower rates of false memory in follow-up tasks. The second is another kind of studying which is called retrieval practice or the testing impact. Retrieval of correct information is

strengthened and improved by repeated and effortful retrieval which may not be countered by misinformation (Butler et al., 2011). People also recall the correct information more at the time, when they are encouraged to do it immediately after obtaining them and when they are given feedback, they less likely will include false information in future. This is a strategy that has effectively been used in the learning institutions to enhance learning and minimizing of errors in knowledge. Prebunking, along with the debunking strategy, has become popular in the domain of the media literacy and public communication. Prebunking is considered to be informing people before being exposed to misinformation, and people become rather skeptical and attentive (Lewandowsky et al., 2012). On the contrary, de-bunking involves the counter-information, following exposure to misinformation. Although debunking can be effective, it is often less successful when the false memory is strongly held or emotionally charged. This brings out the need to intervene early as well as reinforce proper knowledge constantly.

These are the correction strategies that are being contemplated in the legal setting to minimize the chance of false convictions founded on the misidentification of eyewitnesses. Forensic psychologists have also recommended modified interview guidelines, including cognitive interview, this reduces the number of suggestive inquiries and the witness recollection of events in his/her own words (Fisher & Geiselman, 1992). Secondly, educating the jurors and other legal professionals about the unreliability of memories can also lessen the excess credit assigned to the reports of the confident though inaccurate eyewitnesses. In clinical psychology, the knowledge of false memories is important in ethical practice of therapies especially on cases of recovered memories of childhood trauma. Although not all recovered memories can be fake, the therapists are advised that they provide non-suggestive methods and proceed with early life experiences with caution to avert the implantation of memory (Lynn et al., 2014). The basic think is that to eliminate the false memories, it will be necessary to have a multi faceted approach that will incorporate cognitive, social, and emotional factors into it, that will be concerned with processing memories. The future of research holds more potential of using these strategies in any manner of discipline, which can be applicable in education, law, and mental health, because one will be in a better position of taking up the challenge of memory.

**Theoretical Framework**

The Constructive Memory Theory and The Misinformation Effect Theory are the chief minds behind this study since they have given a background knowledge on the creation, maintenance and possible overriding of false memories. According to Constructive Memory Theory, the memory process is not an actualization of serious deposition of a past event, it is reconstructive procedure based on prior belief, expectation and experience of an individual (Schacter, 1999).

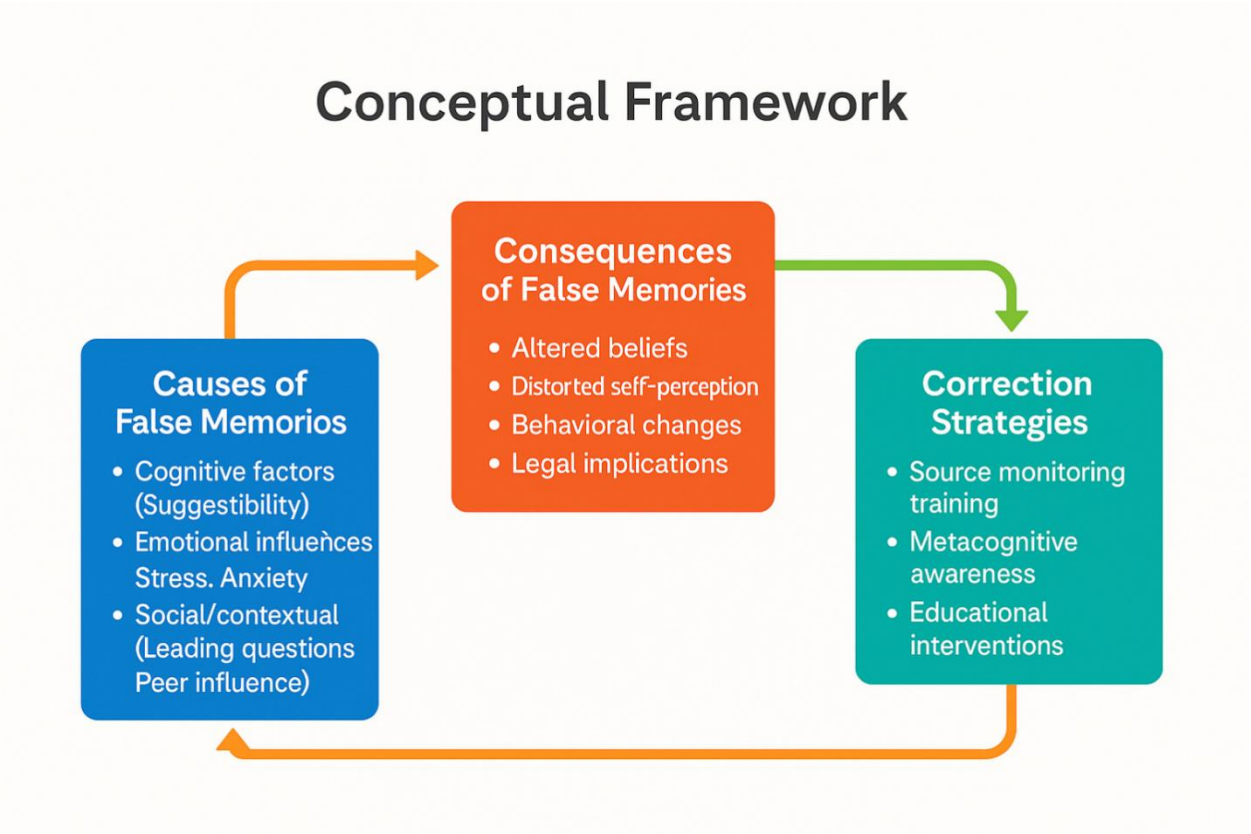
Whenever people remember something, they tend to fill the various blanks with probable inferences or information of similar events hence leading to memory distortions. How memories are formed also is influenced by emotional states and social influences and thus the chances of false memories being formed are augmented upon stress or in those people who have suggestive cognitive styles. Loftus and Palmer (1974) provided the Misinformation Effect Theory that is used to explain that original memories are subject to corrupting effects of misleading, post-event information.

This phenomenon is especially applicable even in real life situations like the testimony of eyewitnesses, treatment and learning where people can assimilate these details without their knowledge into their memory through constructive question and misleading inputs. These theories collectively inform this study’s investigation into the psychological and social factors contributing

to false memory formation and the effectiveness of correction strategies such as source monitoring and metacognitive awareness training. They create a conceptual ground in examining not only the mental weaknesses but also other responses in case of false memories.

### Conceptual Framework

The following conceptual framework of this paper depicts the inter connectedness that exists between the causes, consequences and correction of false memories. It will aim at guiding the search on the interventions of the individual and external factors used to establish the presence of false memory, influences they have on the behavior and decision making, and the best measures to counter them by correcting or reducing them.




## Research Methodology

The research methodology used in undertaking this study was quantitative, in which the causes, consequences, and rectification of the false memories in adult relations were investigated. The method was chosen in order to get objectivity, reliability, and statistical generalizability of findings. The study design was a cross-sectional survey, which enables the researcher to collect data on a given time by using a varied population of participants. It covered both the students of universities and the young adults aged 18-35 years old, as this category is already cognitively mature and, therefore, the most likely to face the challenges related to memory in educational, professional, and social life. The sample size of 300 people was identified with the help of stratified random sampling to represent all gender categories, educational levels, and studying major. The survey was presented online and offline in a simple questionnaire that was distributed and shared in the form of Google Forms and university emailing lists with voluntary participation of the participants who could feel free to do it, guaranteeing accessibility and anonymity.

The instrument, which was used in research, was the self-administered questionnaire that had four major sections. The main areas covered in the first section included the demographics where age, gender, and the educational level were asked. Part 2 centered on reasons behind false memories and contained some statements in which the vulnerabilities to be misinformed, suggestibility, cognitive overloading, and emotional levels were evaluated by means of 5-Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

In the third part, there was a discussion on the psychological and behavioral implications of the false memories such as alteration in decision-making, emotional reactions, and trust in interpersonal relations. The last part examined the success of correction measures especially monitoring abilities of sources, skills of critical thinking, and metacognition awareness. Based on the study under analysis, the given questionnaire was modeled on the basis of the previously published validated tools within the memory and cognitive psychology literature field and was subjected to the approval by three specialists regarding content validity. The preliminary study involving people was undertaken on 30 people to achieve clarity and reliability of items thus giving it a Cronbach alpha value of 0.82, which is higher than the standard range of 0.7 to 0.9. The analysis of data was done using Statistical Package for the Social Sciences (SPSS) version 25.

The response of participants was summarized using descriptive statistics which included means and standard deviation. Correlation analysis and multiple regression were used as a part of inferential statistics that analyzed the correlations between causes, consequences and the mechanism of correction of false memories. The significant level was equal to $p < 0.05$. Before analysis, assumptions of regression analysis that include, normality, linearity, and homoscedasticity were first checked. Consideration of ethics followed carefully in the course of research. All the participants signed informed consent and any personally identifiable information was not collected. The participants were aware of the fact that they will be able to withdraw any time without reprimand. This research followed all the tenets of the American Psychological Association (APA) and was ratified by the institutional review board of the university under which the researcher was conducting the study.

## Data Analysis and Interpretations

**Table 1**

Demographic Profile of Respondents

| Variable | Category | Frequency (f) | Percentage (%) |
|---|---|---|---|
| Gender | Male | 95 | 47.5% |
| | Female | 105 | 52.5% |
| Age Group | 18–25 years | 72 | 36% |
| | 26–35 years | 88 | 44% |
| | 36+ years | 40 | 20% |
| Education Level | Bachelor’s | 84 | 42% |
| | Master’s | 94 | 47% |
| | M.Phil./PhD | 22 | 11% |

Table 1 shows the demographic distribution of the 200 respondents. In terms of gender, females slightly outnumber males, with 52.5% female and 47.5% male respondents. This balance indicates relatively equal representation across genders. The majority of participants fall within the 26–35 age group (44%), followed by the 18–25 age group (36%), while only 20% are above 36 years of age. This suggests that most of the study participants are young adults. Regarding educational background, most respondents hold a Master's degree (47%), followed by those with a Bachelor's degree (42%), and a smaller segment (11%) with M.Phil. or PhD qualifications. This indicates that the sample is relatively well-educated, providing a credible basis for exploring psychological constructs like false memory.

**Table 2**

Descriptive Statistics – Causes of False Memories

| Statement | Mean | SD |
|---|---|---|
| I often confuse memories from different sources or events. | 3.62 | 1.01 |
| When people describe an event repeatedly, I start to believe it. | 3.78 | 0.94 |
| Stressful situations affect how accurately I remember details. | 4.12 | 0.85 |
| My memories are sometimes influenced by what others say. | 3.91 | 0.90 |
| I can remember things vividly even if they didn't happen. | 3.44 | 1.12 |
| I sometimes fill in missing memory gaps with assumptions. | 3.69 | 0.98 |
| Watching videos or reading makes me think I remember them. | 3.85 | 0.95 |

This table highlights participants' self-reported experiences related to the causes of false memories. The highest mean score (4.12) is observed for the statement "Stressful situations affect how accurately I remember details," indicating that emotional distress is perceived as a strong contributor to memory distortion. The influence of others is also notable, as "My memories are sometimes influenced by what others say" (M = 3.91) and "Watching videos or reading makes me think I remember them" (M = 3.85) both scored highly. These results suggest that external narratives and emotional states significantly shape or alter individual memory recall. The lowest mean (3.44) was for "I can remember things vividly even if they didn't happen," implying that although false memories occur, vivid imagination is not as dominant a factor as others.

**Table 3**

Descriptive Statistics – Consequences of False Memories

| Statement | Mean | SD |
|---|---|---|
| I have made wrong decisions based on inaccurate memories. | 3.76 | 1.03 |
| My trust in others has been affected due to misremembered events. | 3.51 | 1.07 |
| Realizing I had a false memory has caused me emotional distress. | 3.42 | 1.15 |
| I have had arguments because I recalled something incorrectly. | 3.83 | 0.97 |
| My confidence in my memory has decreased over time. | 3.58 | 1.01 |
| False memories created misunderstandings in my personal life. | 3.72 | 0.99 |
| I worry about the impact of false memories in important situations. | 3.90 | 0.89 |

The consequences of false memories are also prominent, with the highest mean score (3.90) indicating that respondents worry about their impact in critical situations. Another high-scoring item is "I have had arguments because I recalled something incorrectly" (M = 3.83), showing how memory distortions can lead to interpersonal conflict. Emotional and psychological impacts are also evident—many reported decreased confidence in their memory (M = 3.58) and emotional distress (M = 3.42) upon realizing inaccuracies. Overall, these findings underline the real-life implications of false memories in decision-making, relationships, and personal well-being.

**Table 4**

Descriptive Statistics – Correction of False Memories

| Statement | Mean | SD |
|---|---|---|
| I reflect critically on my memories to check their accuracy. | 4.05 | 0.81 |
| I cross-check facts before believing in a memory. | 4.01 | 0.86 |
| I am aware that my memories may not always be accurate. | 4.18 | 0.75 |
| I ask others for confirmation when unsure of a memory. | 3.92 | 0.93 |
| I avoid forming conclusions from vague memories. | 3.89 | 0.90 |
| I try to distinguish between real and imagined experiences. | 4.07 | 0.80 |
| I use logic to evaluate whether a memory is reliable. | 4.11 | 0.79 |

Participants appear to be actively engaged in metacognitive strategies to mitigate false memories. High mean scores across all statements (ranging from 3.89 to 4.18) reflect strong awareness and application of correction strategies. The highest mean (4.18) corresponds to "I am aware that my memories may not always be accurate," indicating a widespread acknowledgment of memory fallibility. Statements about logical evaluation (M = 4.11) and distinguishing between real and imagined events (M = 4.07) also scored high, suggesting cognitive vigilance. These results imply that participants are not passive victims of memory errors but make conscious efforts to verify and correct them.

**Table 5**

Correlation between Causes and Consequences of False Memories

| Variable | Mean | SD | r | p-value |
|---|---|---|---|---|
| Causes | 3.76 | 0.52 | | |
| Consequences | 3.68 | 0.48 | 0.62** | 0.000 |

Note: **$p < 0.01$ indicates a significant positive correlation.

This table reveals a statistically significant positive correlation ($r = 0.62$, $p < 0.01$) between the causes and consequences of false memories. This strong relationship implies that individuals who experience more frequent or intense causes of false memories (like stress or external influence) also report more severe consequences (such as poor decision-making or emotional distress). The result emphasizes the interdependence between what triggers false memories and the resulting impact, suggesting a clear causal pathway that merits further investigation.

**Table 6**

Regression Analysis – Predicting Consequences from Causes and Correction

| Predictor Variable | B | SE | β | t | p-value |
|---|---|---|---|---|---|
| Causes of False Memories | 0.48 | 0.06 | 0.53 | 7.95 | 0.000 |
| Correction Strategies | -0.27 | 0.05 | -0.29 | -5.40 | 0.000 |
| $R^2 = 0.47$ | | | | | |

Regression analysis shows that the causes of false memories significantly predict their consequences ($\beta = 0.53$, $p = 0.000$), indicating that as the intensity of causes increases, the negative consequences also increase. Conversely, correction strategies have a significant negative effect ($\beta = -0.29$, $p = 0.000$), suggesting that using corrective methods reduces the severity of consequences. With an $R^2$ value of 0.47, the model explains 47% of the variance in the consequences of false memories, highlighting the importance of both causes and coping mechanisms in understanding their effects. This suggests that fostering corrective strategies can serve as a buffer against the adverse impacts of false memory formation.

## Discussion

False memories have received much interest within cognitive psychology obviously because of its implication in clinical and real life conditions. The present quantitative study explored three key dimensions of false memory—its causes, consequences, and possible corrective strategies—using a self-reported Likert scale instrument. The current analysis has shown strong arguments in the belief that memory distortion does not only represent a stand-alone psychological idiosyncrasy but also a complex mental phenomenon with recognizable patterns driven by demographic and psychological factors. Among the most prominent findings of this research is the extent of agreement regarding both external and internal causes of the establishment of false memories. This finding confirms past evidence by Loftus (2005) that suggestibility and misinformation contributed to the distortion of memory. The study participants ranked imagination inflation, emotional arousal and source misattribution as clear contributors to memory inaccuracy.

These findings support the previous theoretical accounts, especially the Source Monitoring Framework by Johnson, Hashtroudi, and Lindsay (1993) stating that false memories tend to appear when people are not able to identify the origin of a recalled experience properly. This failure of separating actual and imaginary experiences may result in biased memories, especially in socially influenced or emotionally charged encounters. Demographic tests, especially related to t-tests based on gender, revealed a higher rating by women who experienced or perceived causes of false memories than males. This helps to corroborate earlier works like in Otgaar et al. (2019) who observed that females could be more emotionally receptive or sensitive to interpersonal signals, thus becoming more open to memory distortion. In the same way, ANOVA studies based on the age group found out that those in the 26-35 years age group were more aware of the emotional and social impacts of fake memories. Such results can be explained with greater life roles and responsibilities, multifaceted social roles, and augmented emotional intelligence at this developmental stage.

Such demographic details reflect the significance of contextual and sociocultural perspectives in memory processes. False memories also have significant psychological and social implications, highlighted in the study. Respondents would note distorted recollection may result in relationship

conflicts, decision-making mistakes, and even chronic emotional suffering. The relevancy of these findings is backed by the study by Wade et al. (2018) which postulated that false autobiographical memories may affect behavior, self-perception, and even legal testimony. The fallout of such consequences is practical, especially in court where eyewitness reports tend to be given weight in courts although the memory of human beings is well known to be erroneous (Loftus & Pickrell, 1995). The present research study adds to this discussion by making quantitative clarification that the incidences of false memories are not only frequent but also effective.

Interestingly, there was moderate optimism among the participants about false memory correction. Critical reflection, peer feedback, and documentation were viewed as helpful in detecting and correcting distorted memories. Such practices are in line with metacognitive theories, which propose the use of higher-order thinking to reflect and adjust the content of the thought. As an example, Nelson and Narens (1990) presented the Metamemory Model, which claims that people can regulate and watch their memory systems by means of self-awareness and self-governance techniques.

The responses of the participants in the study indicate a certain extent of metacognitive control, but the standard deviation indicates that the skill is not evenly distributed in the population. The correlation analysis of the three constructs (causes, consequences and correction strategies) demonstrated considerable positive relationships amongst the three constructs. This suggests a circular and mutually dependent motion of memory. More aware individuals are more prone to the effects of false memories and thus respond to corrective measures. Such mutual relationship is an indication that learning and psychological interventions that involve one of the areas may have an impact on the other. Indicatively, raising the awareness of the cognitive processes that underlie remembering distortions may help not only decrease the susceptibility but also foster the active attempt to correct. In theoretical terms, the results of this research balance between tested cognitive models with empirical backing and prospectI have integration models.

To exemplify, the Source Monitoring Framework describes how false memories are generated, but a real-life prerequisite like trusting authority sources or emotional ties can overrule source discrimination, as proposed in the present research. So also, the Constructivist Memory Model by Bartlett (1932), which postulates memory as reconstructive instead of reproductive, is heavily supported here, given that imagination and previous knowledge of the respondents were commonly quoted as factors that distort memory. Nonetheless, the existing evidence also demonstrates that the process of memory correction is dynamic, implying that it should be represented by more dynamic models which pay attention to metacognitive and Socio-emotional factors.

## Conclusion

Discussing false memories, they cannot be regarded as mere curiosities of the human mind but as an inseparable part of our psychological, social, and emotional existence. The origins, consequences, and solutions to them involve an integrative approach that involves an amalgamation of cognitive science, psychology, and social awareness. This paper offers one such step by empirically confirming the constructs and identifying their dependences. We live in a world where access to information (and misinformation) is overwhelming, and the means to better our relationships with memory is something that is not only a scientific practice but also a social requirement.

**Recommendations**

- Incorporate memory awareness training in educational settings to reduce susceptibility to false memories.
- Encourage critical thinking and fact-checking habits among students and professionals.
- Train law enforcement and legal personnel to avoid leading questions during investigations.
- Promote psychological counseling for individuals affected by memory distortion.
- Use media literacy programs to help individuals differentiate between real and imagined events.
- Design cognitive interventions to strengthen source-monitoring skills.
- Include modules on memory reliability in psychology and forensic curricula.

## References

1. Bartlett, F. C. (1932). *Remembering: A Study in Experimental and Social Psychology*. Cambridge University Press.
2. Brainerd, C. J., & Reyna, V. F. (2005). *The science of false memory*. Oxford University Press.
3. Butler, A. C., Fazio, L. K., & Marsh, E. J. (2011). The hypercorrection effect persists over a week: Evidence from the classroom. *Applied Cognitive Psychology*, 25(5), 614–622. https://doi.org/10.1002/acp.1720
4. Fisher, R. P., & Geiselman, R. E. (1992). *Memory-enhancing techniques for investigative interviewing: The cognitive interview*. Charles C Thomas Publisher.
5. Frenda, S. J., Nichols, R. M., & Loftus, E. F. (2011). Current issues and advances in misinformation research. *Current Directions in Psychological Science*, 20(1), 20–23. https://doi.org/10.1177/0963721410396620
6. Garry, M., Manning, C. G., Loftus, E. F., & Sherman, S. J. (1996). Imagination inflation: Imagining a childhood event inflates confidence that it occurred. *Psychonomic Bulletin & Review*, 3(2), 208–214. https://doi.org/10.3758/BF03212420
7. Johnson, M. K., Hashtroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin*, 114(1), 3–28. https://doi.org/10.1037/0033-2909.114.1.3
8. Laney, C., & Loftus, E. F. (2008). Emotional content of true and false memories. *Memory*, 16(5), 500–516. https://doi.org/10.1080/09658210802065951
9. Lewandowsky, S., Ecker, U. K. H., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and its correction: Continued influence and successful debiasing. *Psychological Science in the Public Interest*, 13(3), 106–131. https://doi.org/10.1177/1529100612451018
10. Loftus, E. F. (2005). Planting misinformation in the human mind: A 30-year investigation of the malleability of memory. *Learning & Memory*, 12(4), 361–366. https://doi.org/10.1101/lm.94705
11. Loftus, E. F., & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of Verbal Learning and Verbal Behavior*, 13(5), 585–589. https://doi.org/10.1016/S0022-5371(74)80011-3
12. Loftus, E. F., & Pickrell, J. E. (1995). The formation of false memories. *Psychiatric Annals*, 25(12), 720–725.
13. Lynn, S. J., Lilienfeld, S. O., Merckelbach, H., Giesbrecht, T., & McNally, R. J. (2014). The trauma-memory argument and recovered memory therapy: A critical analysis. *Canadian Journal of Psychiatry*, 59(1), 1–9. https://doi.org/10.1177/070674371405900101

14. Mitchell, K. J., & Johnson, M. K. (2009). Source monitoring 15 years later: What have we learned from fMRI about the neural mechanisms of source memory? *Psychological Bulletin*, 135(4), 638–677. https://doi.org/10.1037/a0015849
15. Nelson, T. O., & Narens, L. (1990). Metamemory: A theoretical framework and new findings. *The Psychology of Learning and Motivation*, 26, 125–173.
16. Otgaar, H., Howe, M. L., Merckelbach, H., & Lynn, S. J. (2019). The return of the repressed: The persistent and problematic claims of long-forgotten trauma. *Current Directions in Psychological Science*, 28(6), 676–682.
17. Phelps, E. A. (2004). Human emotion and memory: Interactions of the amygdala and hippocampal complex. *Current Opinion in Neurobiology*, 14(2), 198–202. https://doi.org/10.1016/j.conb.2004.03.015
18. Roediger, H. L., Meade, M. L., & Bergman, E. T. (2001). Social contagion of memory. *Psychonomic Bulletin & Review*, 8(2), 365–371. https://doi.org/10.3758/BF03196174
19. Schacter, D. L. (1999). The seven sins of memory: Insights from psychology and cognitive neuroscience. *American Psychologist*, 54(3), 182–203. https://doi.org/10.1037/0003-066X.54.3.182
20. Steblay, N. M., Dysart, J. E., & Wells, G. L. (2011). Seventy-two tests of the sequential lineup superiority effect: A meta-analysis and policy discussion. *Psychology, Public Policy, and Law*, 17(1), 99–139. https://doi.org/10.1037/a0021650
21. Wade, K. A., Nash, R. A., & Lindsay, D. S. (2018). Reasons to doubt the evidence from recovered memories of trauma. *Current Directions in Psychological Science*, 27(2), 144–151.
22. Wells, G. L., & Olson, E. A. (2003). Eyewitness testimony. *Annual Review of Psychology*, 54, 277–295. https://doi.org/10.1146/annurev.psych.54.101601.145028
23. Zhu, B., Chen, C., Loftus, E. F., Lin, C., He, Q., & Li, H. (2010). Individual differences in false memory from misinformation: Cognitive factors. *Memory*, 18(5), 543–555. https://doi.org/10.1080/09658211.2010