

## Research on Factors Influencing Memory

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### Abstract

Based on Bartlett 's experiment, this article reproduces Bartlett 's repeated reproduction experiment. Through the analysis of the experimental results and the research of Ebbinghaus, Bartlett, and related scholars, the influencing factors of memory and the results of wrong memory we found possible causes, and propose methods to reduce the generation of false memories.

### Keywords

Memory, wrong memory, Bartlett.

### 1. Introduction

Since the advent of mankind, memory has followed and served people's lives. Since ancient times, people have never given up the study and exploration of memory. Plato first put forward the concept of memory. He likens the creation and forgetting of memories to the stencil effect. Later, people dedicated themselves to scientific memory research. Memory psychologist E Tutving believes that scientific memory research is divided into three stages. The first stage is the memory system experiment carried out by Ebbinghaus. The content of the experiment is word learning. At this stage, the two factors of association and intensity are used to explain various phenomena of memory. Ebbinghaus 'contribution is to divide memory into three categories, and the memory forgetting curve is proposed. From 1960 to 1980, due to the rise of cognitive psychology, many scholars conducted research on the computer model of memory and the paradigm of information processing, which changed the original experimental framework and experimental procedures, and used multiple processes of memory as the theoretical basis. The third stage is from 1980 to now. This stage uses the starting effect and memory system as the theoretical basis to carry out research in cognitive neuroscience. It contains brain science and cognition and behavior. Starting from the computational method and application of resting brain functional imaging, the computational theory and methodology of a series of brain imaging including nuclear magnetic resonance, electroencephalography and near infrared imaging are studied from three spatial scales, namely complex network, functional system and brain local. Based on the Bartlett experiment, this article summarizes the theories of Ebbinghaus, Bartlett and related scholars, uses experimental methods to study the factors and mechanisms that affect memory, and proposes ways to reduce false memory and improve memory. This article contains the following three parts: the first part is the literature review, the second part is the design and analysis of the experiment, and the third part is the summary part, which proposed some methods to improve memory.

### 2. Literature Review

In his representative work "Memory: An Experimental and Social Psychological Study", Bartlett proposed the concept and influencing factors of memory errors, and believed that the phenomenon of memory errors is affected by a series of comprehensive effects such as the attitudes, beliefs, and icons of the intended person. In contrast to the repeated research of

Ebbinghaus's meaningless syllables, Bartlett used materials that people often come into contact with in daily life as experimental materials, canceled the idea of passive storage of Ebbinghaus and proposed the active construction of memory. In a series of experiments, "Ghost Wars" is the most famous. The researchers used the repeated reproduction method. "Ghost Wars", a famous North American story, testers are required to read it completely twice in normal reading speed. The first reproduction time is 15 minutes after the end of the reading, and other reproductions are performed at random intervals, maybe 20 hours, 8 days, or six months. The study found that the phenomenon of omission and replacement is more obvious. As some details in the story are omitted, the story becomes shorter and shorter. At the same time, the subjects will add some new materials to make the story more reasonable and natural. Sometimes they even added some ethical content. Bartlett called this mental phenomenon that the memories of past experiences and events deviate from the facts as memory illusions. In the test, the processing and simplification of the materials confirmed the assumption of Bartlett: with the passage of time, not only the amount of memory retention will change, but also the content of memory. Relevant scholars compared the experiments of Ebbinghaus and Bartlett based on the basic viewpoints and research methods, and believed that the Bartlett inheritance and development of the research of Ai, and their focus is different. Ai's research focuses on quantity, and Bart's research on quality. Therefore, the two views are different, but not completely opposite. With the passage of time, the details remembered by people will indeed decrease, but the memories left are extracted and refined. Not only will they not be forgotten with time, but they will be enhanced.

Although Bartlett's memory research has achieved fruitful results, it has also played a major role in promoting memory research for future generations. In the pursuit of accuracy, his experimental results have been questioned a lot. Gold and Stephenson also used the "Ghost War" as the experimental material. During the experiment, three level of instructions were used: "write as accurately as possible", "as accurate as possible, do not write what did not happen", and "If you don't remember, please don't make up". The results of the study showed that the subjects did appear to have the wrong memory distortion in the Bartlett memory experiment during the recall, but only in the group with less strict instruction. Therefore, Gold and Stephenson believed that Bartlett's less strict guidance encouraged the participants to fabricate and reconstruct the materials.

With the in-depth study of memory, some researchers have become interested in this kind of wrong memory. The current research on false memory mainly focuses on three aspects: factors affecting the effect of false memory, individual differences in susceptibility to false memory, and the brain mechanism of false memory. Among them, there are relatively more influencing factors and mechanisms. Scholars use the association research paradigm and the unconscious perception paradigm to study word error memory. The association research paradigm includes centralized association research paradigm and category association research paradigm. In the experiment of the concentrated association research paradigm, the words in the vocabulary used are related to a word that does not appear in the vocabulary, such as winter, ice, and glacier, all related to cold. In the recall test, the subjects had a high probability of recalling the related word "cold" which was not presented. In the experiment of the category association research paradigm, the words in the vocabulary used can be classified, such as apples, bananas, pears, can be classified as fruit, In the recall test, the subjects had a high probability of recognizing the unrepresented category examples, such as peach. The experimental reports of the above two experiments show that "relevance" is an important factor in the association research paradigm, and it is a key variable that successfully triggers false memory. In the paradigm of unconscious perception research, researchers believe that unconscious perception is an important prerequisite for error recognition. The possibility of wrong recognition is related to whether the background words are noticed, that is, unconscious perception can affect the

subject's familiarity with the material. The subject's error recognition effect can be interpreted as the result of the unconscious extraction and attribution process.

When scholars conduct research on individual's false memory of time, the misleading information interference paradigm and KK research paradigm adopted, as well as the daily memory behavior research, have revealed the essence and characteristics of the phenomenon of false memory from a certain level. When conducting an experiment with a misleading information interference paradigm, the researcher will play the material to the subject and then ask questions containing misleading information. After a period of time, observe whether the subject's impression of the material has changed, such as watching a video of a traffic accident. Afterwards, the questions containing the words "collision" and "crash" implying different degrees of damage were used to ask the subject's car damage. The results showed that some of the subjects even "remembered" specific disaster scenes that did not exist, such as broken glass. Explain that induced problems may change a person's memory of events. The reason is that there is no unified conclusion. At present, there are mainly two views: misleading information may destroy the original memory, resulting in the internal lack of memory or interference comes from the wrong attribution of the information source, and the individual cannot confuse the later event with the original event distinguish. When conducting an experiment in the KK research paradigm, the subjects will be informed with a positive attitude that they have not done anything, and then observe whether the subjects will change their impressions on the matter, such as requiring the subjects to be on the computer Type the words you hear. If they accidentally touch the ALT key, the computer will explode. After the subjects typed for a period of time, even if they did not touch the keys, the computer made an explosion and informed them that they had touched the keys. The experimental results showed that after being informed, the subjects tended to admit to touching. This proves that social compliance and social pressure are important influencing factors for people to admit that they have done something.

### **3. Experimental Design and Discussion**

#### **3.1. Experiment Introduction**

Experiment Name: Memory Series Reproduction Experiment

Experimental method: sequential reproduction method

Experimental materials and information of the subjects:

Imitating Bartlett's part of the reason for choosing "Ghost War", this study chose the classic story in Western culture-while the car is waiting. The content is dramatic, and the subjects will not feel bored or resistant to emotions during reading. The experimental materials are shown in Figure 1.

## *While the Auto Waits*

by [O. Henry](#)

Promptly at the beginning of twilight, came again to that quiet corner of that quiet, small park the girl in gray. She sat upon a bench and read a book, for there was yet to come a half hour in which print could be accomplished. To repeat: Her dress was gray, and plain enough to mask its impeccancy of style and fit. A large- meshed veil imprisoned her turban hat and a face that shone through it with a calm and unconscious beauty. She had come there at the same hour on the day previous, and on the day before that; and there was one who knew it. The young man who knew it hovered near, relying upon burnt sacrifices to the great joss, Luck. His piety was rewarded, for, in turning a page, her book slipped from her fingers and bounded from the bench a full yard away. The young man pounced upon it with instant avidity, returning it to its owner with that air that seems to flourish in parks and public places - a compound of gallantry and hope, tempered with respect for the policeman on the beat. In a pleasant voice, he risked an inconsequent remark upon the weather that introductory topic responsible for so much of the world's unhappiness-and stood poised for a moment, awaiting his fate. The girl looked him over leisurely; at his ordinary, neat dress and his features distinguished by nothing particular in the way of expression. "You may sit down, if you like," she said, in a full, deliberate contralto. "Really, I would like to have you do so. The light is too bad for reading. I would prefer to talk." The vassal of Luck slid upon the seat by her side with complaisance. "Do you know," he said, speaking the formula with which park chairmen open their meetings, "that you are quite the stuningest girl I have seen in a long time? I had my eye on you yesterday. Didn't know somebody was bowled over by those pretty lamps of yours, did you, honeysuckle?" "Whoever you are," said the girl, in icy tones, "you must remember that I am a lady. I will excuse the remark you have just made because the mistake was, doubtless, not an unnatural one -- in your circle. I asked you to sit down; if the invitation must constitute me your honeysuckle, consider it with- drawn." "I earnestly beg your pardon," pleaded the young man. His expression of satisfaction had changed to one of penitence and humility. It was my fault, you know -I mean, there are girls in parks, you know - that is, of course, you don't know, but -- ""Abandon the subject, if you please. Of course, I know. Now, tell me about these people passing and crowding, each way, along these paths. Where are they going? Why do they hurry so? Are they happy?"

The young man had promptly abandoned his air of coquetry. His cue was now for a waiting part; he could not guess the role he would be expected to play. "It is interesting to watch them," he replied, postulating her mood. "It is the wonderful drama of life. Some are going to supper and some to -- er -- other places. One wonders what their histories are." "I do not," said the girl; "I am not so inquisitive. I come here to sit because here, only, can I be near the great, common, throbbing heart of humanity. My part in life is cast where its beats are never felt. Can you surmise why I spoke to you, Mr. --?" "Parkenstacker," supplied the young man. Then he looked eager and hopeful. "No," said the girl, holding up a slender finger, and smiling slightly. "You would recognize it immediately. It is impossible to keep one's name out of print. Or even one's portrait. This veil and this hat of my maid furnish me with an incog. You should have seen the chauffeur stare at it when he thought I did not see. Candidly, there are five or six names that belong in the holy of holies, and mine, by the accident of birth, is one of them. I spoke to you, Mr. Stackenpot --" "Parkenstacker," corrected the young man, modestly. "-- Mr. Parkenstacker, because I wanted to talk, for once, with a natural man -- one unspoiled by the despicable gloss of wealth and supposed social superiority. Oh! you do not know how weary I am of it -- money, money, money! And of the men who surround me, dancing like little marionettes all cut by the same pattern. I am sick of pleasure, of jewels, of travel, of society, of luxuries of all kinds." "I always had an idea," ventured the young man, hesitatingly, "that money must be a pretty good thing." "A competence is to be desired. But when you leave so many millions that --!" She concluded the sentence with a gesture of despair. "It is the motony of it" she continued, "that palls. Drives, dinners, theatres, balls, suppers, with the gilding of superfluous wealth over it all. Sometimes the very tinkle of the ice in my champagne glass nearly drives me mad." Mr. Parkenstacker looked ingenuously interested. "I have always liked," he said, "to read and hear about the ways of wealthy and fashionable folks. I suppose I am a bit of a snob. But I like to have my information accurate. Now, I had formed the opinion that champagne is cooled in the bottle and not by placing ice in the glass." The girl gave a musical laugh of genuine amusement. "You should know," she explained, in an indulgent tone, "that we of the non-useful class depend for our amusement upon departure from precedent. Just

now it is a fad to put ice in champagne. The idea was originated by a visiting Prince of Tartary while dining at the Waldorf. It will soon give way to some other whim. Just as at a dinner party this week on Madison Avenue a green kid glove was laid by the plate of each guest to be put on and used while eating olives." "I see," admitted the young man, humbly. "These special diversions of the inner circle do not become familiar to the common public." "Sometimes," continued the girl, acknowledging his confession of error by a slight bow, "I have thought that if I ever should love a man it would be one of lowly station. One who is a worker and not a drone. But, doubtless, the claims of caste and wealth will prove stronger than my inclination. Just now I am besieged by two. One is a Grand Duke of a German principality. I think he has, or has had, a wife, somewhere, driven mad by his intemperance and cruelty. The other is an English Marquis, so cold and mercenary that I even prefer the diabolism of the Duke. What is it that impels me to tell you these things, Mr. Parkenstacker?" "Parkenstacker," breathed the young man. "Indeed, you cannot know how much I appreciate your confidences." "The girl contemplated him with the calm, impersonal regard that befitted the difference in their stations. "What is your line of business, Mr. Parkenstacker?" she asked. "A very humble one. But I hope to rise in the world. Were you really in earnest when you said that you could love a man of lowly position?" "Indeed, I was. But I said 'might.' There is the Grand Duke and the Marquis, you know. Yes; no calling could be too humble were the man what I would wish him to be." "I work," declared Mr. Parkenstacker, "in a restaurant." "The girl shrank slightly. "Not as a waiter?" she said, a little imploringly. "Labor is noble, but personal attendance, you know -- valets and -- ""I am not a waiter. I am cashier in" -- on the street they faced that bounded the opposite side of the park was the brilliant electric sign "RESTAU- RANT" -- "I am cashier in that restaurant you are there." "The girl consulted a tiny watch set in a bracelet of rich design upon her left wrist, and rose, hurriedly. She thrust her book into a glittering reticule suspended from her waist, for which, however, the book was too large. "Why are you not at work?" she asked. "I am on the night turn," said the young man; it is yet an hour before my period begins. May I not hope to see you again?" "I do not know. Perhaps - but the whim may not seize me again. I must go quickly now. There is a dinner, and a box at the play -- and, oh! the same old round. Perhaps you noticed an automobile at the upper corner of the park as you came. One

with a white body "And red running gear?" asked the young man, knitting his brows reflectively. "Yes. I always come in that. Pierre waits for me there. He supposes me to be shopping in the department store across the square. Conceive of the bondage of the life wherein we must deceive even our chauffeurs. Goodnight." "But it is dark now," said Mr. Parkenstacker, "and the park is full of rude men. May I not walk -- ""If you have the slightest regard for my wishes," said the girl, firmly, "you will remain at this bench for ten minutes after I have left. I do not mean to accuse you, but you are probably aware that autos generally bear the monogram of their owner. Again, goodnight "Swift and stately she moved away through the dusk. The young man watched her graceful form as she reached the pavement at the park's edge, and turned up along it toward the corner where stood the automobile. Then he treacherously and unhesitatingly began to dodge and skim among the park trees and shrubbery in a course parallel to her route, keeping her well in sight When she reached the corner she turned her head to glance at the motor car, and then passed it, continuing on across the street. Sheltered behind a convenient standing cab, the young man followed her movements closely with his eyes. Passing down the sidewalk of the street opposite the park, she entered the restaurant with the blazing sign. The place was one of those frankly glaring establishments, all white, paint and glass, where one may dine cheaply and conspicuously. The girl penetrated the restaurant to some retreat at its rear, whence she quickly emerged without her hat and veil. The cashier's desk was well to the front. A red-head girl on the stool climbed down, glancing pointedly at the clock as she did so. The girl in gray mounted in her place. The young man thrust his hands into his pockets and walked slowly back along the sidewalk. At the corner his foot struck a small, paper-covered volume lying there, sending it sliding to the edge of the turf. By its picturesque cover he recognized it as the book the girl had been reading. He picked it up carelessly, and saw that its title was "New Arabian Nights," the author being of the name of Stevenson. He dropped it again upon the grass, and lounged, irresolute, for a minute. Then he stepped into the automobile, reclined upon the cushions, and said two words to the chauffeur: "Club, Henri."

**Fig 1.** while the car is waiting

Participant information:

In this study, we recruited volunteers online. A total of 13 subjects were recruited, all of whom were in the second grade, including 6 boys and 7 girls. Before participating in the experiment, they were reminded to take the experiment seriously and cooperate.

### **3.2. Experimental Process**

Distribute the experimental materials to the first experimental subject and ask them to read twice at the normal reading speed, emphasizing the normal speed. After reading, inform the experimenter that the experimenter can withdraws the materials to ensure that the subjects complete the experiment completely by their own memory during the subsequent experiment. After an interval of 20 minutes, the subjects were notified to repeat the material they had read before. During this period, the subjects were free to exercise. After the first experimenter retells it, sends the content of the retelling as the experimental material to the second experimenter. The process is required to be exactly the same as the previous one. Then the second retell will be handed over to the third, until the text is missing too much and is no longer modified.

### 3.3. Experimental Results and Analysis

From the overall perspective, the content of the subjects is very different from the original text. The content of the subjects appears more reasonable, simpler, carefully organized or distorted the stories written by the first groups were more logical, consistent, and shorter than the original. It demonstrates the processing and simplification of memory, as well as the active construction of memory process, that people can categorize information based on past experience.

Evening just come, a gray skirt girl also come to this quiet park reading, veil and cap covered her face young man saw her, as he knows, she yesterday, the day before yesterday in the same place at the same time also to read girl's book slipped from his fingers and fully off spread out a yard away young people can't wait to her book, with very popular at that time the gentleman etiquette returned the book to the girl and asked the sentence has nothing to do with you about weather young man showed no expression, the girl said: If you like, please sit down light is too dark, I'd rather talk, the young man said, I notice you for a long time ago, a beautiful little girl is very unhappy, said: I ask you to sit down and not to bring a little girl, please remember I am a classy woman, don't look at me like a maid dress and hat, I do not want to make people pay attention to not let my name appeared on the newspaper is a difficult task, young men and said: Look at the people on this street, they come and go, it's hard to know what they're up to. I'm never interested in what they're up to. I'm just here to feel the great pulse of humanity. I'm sick of it. The party revelry and the monotony of the champagne coupe. What's your name? Parkenstein. The young man gives his name and the girl is expected to give her name. I work at the restaurant across the street with the flashing sign. You're not a cashier, are you? After a while, the girl got up to go, she said, I am going to a party by car. The young man asked, Which car is yours? The girl said, "Is the white one the red one? Yes, I will tell the driver Pierre that I am going to the department store, and I will lie to my driver. This kind of life is really miss, will you come back tomorrow? Maybe, if you respect me, will you please after I walk 10 minutes had been sitting in the chair girl went away, the young man followed her, on both sides of the trees of his disguise is very good, he followed the girl to across the street, looking at her walking past the car was turned into the brilliant brand hotel, now she dived into a corner, remove the hat and veil, sitting in the position of cashier on the young man walked over and picked up the book she - new Arabian nights, he smiled and turned to sit in the procession of the car, the driver said: go to (somewhere), Leon

**Fig 2.** The content written by the first participant

The content shown in Figure 2 is the content described by the first participant. By comparison with the original text, it can be seen that the most unstable part of the series reproduction is the name and title, which is easy to be ignored. During the narrative process, the first subject understood and sorted out the content. For example, she had sorted out "she came at the same time yesterday and the day before yesterday" as "she yesterday, the day before yesterday also read at the same place at the same time ". A sentence contains many words of the original text, and is integrated in a smooth word order, grouped together; " If you are happy, you may sit down "to" If you are happy, please sit down ", " Think about this This kind of life that even my driver has to cheat, how unfree is."simplified to "I must lie to my driver, this kind of life really is" After the modification, it is obviously more inclined to be spoken, using the unique omission in Chinese Sentences; " Cold shoulder " was changed to "very unhappy", indicating that the

subjects were unhappy with the introduction of the cold and the introduction of the girl; the man's request for a change of topic in the original text was not repeated, but directly said that the man changed. For details, the details here have been omitted; "money money money" has not been changed, the repeated parts make the subjects remember more clearly; the exact name of the man and the specific location of the club have been forgotten. When translated from a foreign language, long English translations tend to be ignored or taken for granted, as opposed to the usually shorter Chinese names. Although the content of the retellers is almost complete, as the number of people increases, the content is getting less and less, and the transition between different content is not clearly explained, so that the subsequent retellers feel confused and actively construct, Try to make the content more smooth or directly omit links that lack relevance.

Time: Dusk has just arrived

Location: Bus station

Characters: Man and girl with hat veil

Girls often read at the same place at the same time. The girl's book fell a yard away. The man returned the book to him with the gesture of the gentleman at the time. Then he asked how the weather was. It's too dark to chat, the young man said he has been paying attention to this chick for a long time. The girl was very upset. She said that she was an aristocrat. Asking him to sit down did not ask him to call her a chick like a servant, and said she could easily appear in the newspaper. From the perspective of God, the girl said that she was observing the pulse of the city, expressing her aversion to money, the kind of banquet, indulgent monotony. The girl asked if the man's name was Pasha, and the young man also expected the girl to voluntarily report his name \*. The girl asked the man what he was doing. He said he was working in a restaurant. The girl asked him if he was a cashier. Then he said that his car was the red one with a white surface. After she said she was leaving, the man asked how he could still meet her. She said that if she wanted to show respect to her, she would do it for ten minutes. The man then took cover under the lush forest and followed her quietly, watching her take off her veil and hat and sit in the cashier's seat. The man turned to get in the car and said to the driver: "Go to XXX, Lyon."

Fig 3. The content written by the second participant

As shown in Figure 3: The name of the exact person and place written by the second subject had been completely forgotten. The subject chose to use symbols instead. The starting place was also changed from a park to a bus stop when the subjects just saw the world "public". He subconsciously thought of bus stops; The girl's long speech was succinctly put in "the perspective of god"; the last driver's name changed from "Henri" to "Lyon", a more common English name translation (and look a little bit same in Chinese). The transition between content is getting weaker. The subjects' preference for different parts of the content obviously affected the integrity of the story.

A man and a woman with a veil and hat at the bus station at dusk  
 The man's name is Pa... something  
 The man asked the woman what she called but she didn't answer him  
 The women often study in one place  
 The book was accidentally dropped and the man picked it up very gentleman  
 The woman said it's okay to sit down and chat, the man said he's been paying attention to the chick for a long time  
 Woman seems very unhappy  
 Ask the man if he is a restaurant cashier  
 The woman is leaving, the man asks how can I see you  
 The woman said I waited here for ten minutes after I left  
 Then the man watched the woman put on the cashier's clothes  
 Get in a car, say X X, go X X

**Fig 4.** The content written by the third participant

As shown in Figure 5, a male and female protagonist is still present in the content written by the fourth subject, and the content continues to be streamlined. Recognition of the profession and embarrassment can be drawn from the subject's repetition. Things that are not obviously related to each other have been actively constructed, so that the female host's leaving behavior after asking the male host's career becomes reasonable, and then he gets the wrong conclusion that the male host is embarrassed. At the same time, the word "coffee shop" appeared out of thin air. The fourth subject guessed that the location was a coffee shop from the exit of waiter. The reason why it was not a restaurant was because the subjects like to drink coffee and milk tea every day. It can be seen that the memory reproduction will produce wrong memories. One reason is influenced by people's living habits.

#### 4. Conclusion

Through the above research, it is proved that memory is not just a simple biological current sink and stress response, but a conscious active construction of the organism. The subject's memory is easily affected by past experience, living habits, living environment, understanding ability, emotional state, and the generation of wrong memory is inseparable from association. Bartlett believes that research on psychology should not be limited to laboratories, and that integration into everyday life is the real purpose. For students, good memory is the dream skill of most students. After exploring memory and wrong memory, this article proposes methods to improve the accuracy of memory content according to the relationship between them: 1. Pleasant emotions and learning environment helps to enhance memory, so parents and teachers should establish a pleasant learning environment, encourage students, and use positive methods to guide students. 2. People can receive information through multiple senses, such as sight, hearing, touch, etc., so that the same information establishes multiple channels in the cerebral cortex. These memories leave multiple traces in the cerebral cortex, even if a certain memory is thin The presence of other memories can make the memories reappear. In addition, the participation of multiple senses makes the memory more layered and three-dimensional. When the information is communicated to the brain, the brain can retell from different angles and play a strengthening role, thereby making the memory more profound. Therefore, in the teaching process, teachers use experiments and multimedia for experiential teaching, so that students can participate in the experiment personally, participate in the

experiment more often, and use the brain to participate in the discussion in the classroom, promote students' multi-sensory experience and enhance memory. 3. In the teaching process, students should be ensured that they have enough time to learn and repeat their studies in a timely manner. Learning that is repeated frequently and with sufficient time is conducive to strengthening understanding and reducing the occurrence of false memories. In daily learning and teaching, it is advisable to arrange different learning methods according to the different learning materials. If the materials have large differences, you can use the centralized learning method to reasonably arrange the length of the concentrated learning. If the materials are similar, under the condition of ensuring a reasonable learning time each time, it can strengthen the learning and increase the number of learning, so that the number of learning is more than 3 times, which can increase the correct amount of memory and reduce the wrong memory. 4. People can convert the memory content into visual symbols for memory to form visual information. This memory method of building a situation model in thinking can effectively reduce the amount of language and enrich the information "chunks" in short-term memory. To sum up, this paper believes that students can deepen their memory and reduce the occurrence of false memory by reducing the time pressure of memory, adjusting their emotions and changing the method of memory.

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