The Stimulating Factors of Cognitive Memory and the Meaning and Influence of Cognitive Conception

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Abstract. This paper studies the stimulating factors of cognitive memory and the significance and influence of such factors on cognitive concepts. Through a comprehensive review of literature and experimental data, this paper explores how different types of stimuli affect individual memory and cognitive architecture. Through literature research combined with investigation and analysis, the relationship between the themes was further determined. It is found that stimuli can significantly affect the formation of cognitive concepts, thus changing individual learning and decision-making. And further research shows that different kinds of stimuli have a great degree of difference in the change of cognitive structure. Finally, based on this research, this paper analyzes how to solve the existing social problems.

Keywords: Cognitive Memory; Conception; Influence.

1. Introduction

Cognitive memory is an important topic in psychology, which attempts to explain the interrelationship between memory changes and cognitive structure. The existing research has constituted a complete theoretical framework in general. The purpose of this paper is to explore the influence of stimuli on cognitive memory and the significance of this influence on the production of cognitive concepts. Cognitive beliefs are the foundation of our understanding and knowledge of the world, and stimuli play an important role in shaping and influencing these cognitive beliefs. This paper will classify and define different cognitive and memory stimuli, and further study relevant literature and experimental data to reveal this relationship by studying the transformation process and influence effect of cognitive concept structure, so as to help people more clearly understand the different influences of different stimuli on cognitive concept. Finally, combining the existing research results with the current social environment, the application of solving practical social problems in the future is reasonably analyzed.

2. Cognitive Memory Stimuli

Cognitive memory is the process by which the brain acquires, stores and uses information. This process allows people to store memories and use them in the future after being awakened by specific scenes. These memories are usually divided into short-term memory and general knowledge memory. The components of cognitive memory can be divided into perceptual memory, encoding storage, and retrieval memory. New information is perceived from an external stimulus, and is divided by the human brain into short-term memory and long-term memory, thus distinguishing between information that is stored temporarily and information that requires lasting memory. Among them, long-term memory and memory are also divided into explicit memory and recessive memory, respectively representing the relatively objective existence of the event record and the conditioned reflex without consciousness. Different memories are encoded and stored in the brain. When a memory is awakened, the brain extracts the stored information and acts on it. The way the brain unlocks and uses information in this way changes our cognition and memory.

There are different recall situations for different information, which are also affected by the state of recording information. Different factors will affect the effect of memory. These will be divided into four categories for discussion. The first type of factors that affect cognitive memory is the

perceptual state. When recording information, the human brain will be affected by these factors on the quality of memory. Such factors can be listed as sound and picture, meaning and emotional value of memory information. If there are sounds or images as auxiliary tools in the memory scene, the memory effect will be enhanced; Memorized information is also enhanced if it is given significant meaning or emotional value. The second type of major factor is the difficulty of information recording. If the information to be remembered is strongly dependent on a specific scene or event, these memories usually need to be unlocked and reacted in a specific state. Some information that requires long-term memory is also difficult to retrieve and store. The third factor is the stability of the memory scene. When storing new information, the brain needs the attention to encode and store the information. At the same time, repeated practice will strengthen and consolidate the memory.

2.1. Memory Factors of Cogntive Memory

Cognitive memory is an important part of human cognitive function, which is affected by various stimuli. From the perspective of psychology, this paper discusses in detail the definition and classification of cognitive memory stimuli, as well as the sources of these factors, including internal and external stimuli, emotional, social and environmental factors, in order to fully understand the various influencing factors in the process of memory.

The stimulators of cognitive memory refer to many factors that influence and help people remember and recall information. These factors can be classified according to their nature and source into the following types.

Sensory stimuli are sensory inputs that transmit information to the brain through the sensory system, including sight, hearing, and smell, taste, and touch [1]. These sensory inputs play a key role in the perception and storage of information. For example, visual stimuli help people remember images and colors, while auditory stimuli are involved in the processing of sound and language [2]. Second, emotional stimuli are related to emotions and emotion-related experiences, which can enhance or weaken memories. Emotionally related events and experiences are often better remembered because emotions can trigger emotional imprints of memories. Emotional factors can also affect the importance and relevance of information, and thus its long-term preservation [3]. Internal stimuli include individual thinking, cognitive willingness and attention. The individual's attention and cognitive willingness are both critical to storing information in memory and retrieving it when needed. This reflects the individual's active participation and self-control in the memory process. Finally, situational stimuli involve the environment and context in which an event is learned or experienced. These factors provide the background and clues of the information in the recall and help the retrieval and recovery of information. Environments that are similar to the initial learning environment or situation often provide better recall support.

The sources of cognitive memory stimuli can be divided into internal and external stimuli, as well as emotional, social and environmental factors, each of which have different effects on memory. The internal stimuli mainly come from the individual's thinking, emotion, emotion and cognitive process. Emotionally intense experiences, emotional responses, and an individual's concentration and interest can all influence the formation and quality of memories. The internal state of an individual is crucial in determining what information is remembered and how it is remembered. External stimuli include sensory input, environment, and social interaction. Sensory inputs, such as sight, hearing, touch, smell and taste, provide information and affect the storage and recall of information. Environmental factors include the environment and context in which events are learned or experienced, which can provide important clues in recall and aid in information retrieval and recovery [4]. In addition, social interaction, discussion, and communication can enhance the storage and extraction of information, and sharing information and experiences with others contributes to the assistance and reinforcement of memory [5]. Emotional factors play a key role in both internal and external stimuli. Emotional factors include individual emotional experience and emotional interaction with others. Emotionally intense experiences are more likely to be remembered, and emotional responses can alter the strength

and quality of memories [6]. In addition, emotions can also influence the perception and memory of social interactions and environmental situations.

Taken together, the stimuli of cognitive memory are diverse, covering an individual's internal and external factors, emotional experiences, social interactions, and the environment and context of learning. These factors interweave with each other and jointly affect the process of memory formation, preservation and recall. Understanding how these factors affect memory will help people better understand human cognitive function and improve the efficiency of learning and memory. In future studies, the interrelationships between different stimuli can be further explored and how these factors can be better utilized to improve cognitive memory and educational methods.

3. The Meaning of Cogitive Concepts

Cognitive concepts are the ways and modes of understanding of the world and information, which have a profound impact on the process and effect of learning. Cognitive conception is a core component of the human cognitive system, they shape our cognitive framework of the world and influence how do people perceive, understand and process information [7]. In the field of education, it is important to understand the role of cognitive conception to improve the effectiveness of learning. This paper will delve into how cognitive perceptions influence different aspects of learning, including learning orientation, learning strategies, learning motivation, learning efficiency, understanding and application, problem solving, resistance to cognitive bias, and persistence of learning.

Cognitive concepts first affect the individual's choice of learning content and direction. Individuals' perceptions determine their perceptions of what is important, interesting, or challenging knowledge [8]. Students with a strong interest in astronomy may be more inclined to study the field of space and less interested in the field of biology. This tendency can guide students to choose the field of study more pertinently and improve the learning effect.

Cognitive perception plays a key role in problem solving. They provide a framework and way of thinking for individuals to help solve complex problems, as problem solving often involves applying existing ideas to new situations [9]. Individuals' cognitive beliefs can affect their problem-solving abilities, because different beliefs may lead to different problem-solving strategies.

Cognitive concepts also affect the choice of learning strategies. Different ideas may lead to different learning methods. For example, an individual with an active concept of learning may be more inclined to use active learning strategies, such as positive thinking, questioning, and exploration, while an individual with a negative concept may be more likely to passively receive information and not actively engage in learning. Therefore, understanding the influence of cognitive concepts on learning strategies is helpful for educators to guide students to choose suitable learning methods. Learning motivation is a key factor in the learning process, and cognitive concepts also affect it. If individuals believe they can successfully learn a subject, they are more likely to put in more effort and improve their learning. Conversely, negative perceptions of cognition can lead to self-doubt and a lack of motivation to learn. Therefore, encouraging positive cognitive concepts is essential to improve learning motivation.

Existing cognitive conception affect the efficiency of learning because they allow individuals to understand and remember relevant information more easily. It is easier, and therefore more effective, to learn things that fit with existing ideas. This means that when students learn, if they can connect new knowledge with their existing cognitive concepts, it will be easier to improve their learning efficiency [10]. Cognitive concepts help to understand the learning content deeply. When the content of learning can be linked to existing cognitive concepts, individuals are more likely to understand, remember and apply this knowledge. Understanding and application are key objectives of learning as they allow students to translate knowledge into practical skills and applications.

4. The Influence of Cogntive Concepts

The influence of cognitive concepts on cognitive memory is a wide and complex field. Cognitive concept is the mental representation of the cognitive process of an individual towards himself and the world around him. These cognitive concepts include perception, learning, thinking and memory. The influence of cognitive conception on cognitive memory is that they play a key role in the processing and storage of information.

Cognitive conception can influence memory storage and retrieval. Storage is the process of keeping information in long-term memory, while retrieval is the process of taking information out when it is needed. Individuals' perceptions can influence how they store information and retrieve it when needed. For example, if a person has a positive idea of self-awareness, he may be more likely to remember information about himself because it is consistent with his self-concept. In addition, cognitive concepts can also influence memory attention and attention allocation. Individuals' cognitive concepts affect their attention to information and the allocation of attention. A person may be more likely to remember information related to his interests and values because it is more likely to get his attention. Thus, cognitive perceptions play a crucial role in determining which information is remembered and which information is forgotten. Cognitive beliefs can also influence the choice of memory strategies and techniques. Individuals choose memory strategies and techniques based on their cognitive beliefs. Perceptions can also be influenced by external factors, such as culture, social background, and education. Different cultural and social backgrounds can shape individuals' cognitive concepts and thus affect their cognitive memory. Education and learning experiences can also influence the development and evolution of cognitive conception.

4.1. Decision-making and Problem-solving

Cognitive concepts are our cognitive models of the world, including how people perceive information, understand information, think about problems, and make decisions. Cognitive conception shape how people think about problems. Different cognitive concepts may lead to different ways of identifying and defining problems. A problem that may be obvious to one person may not be obvious to another. Different cognitive concepts will affect the identification and definition of problems, and thus affect the beginning of problem solving. Cognitive conception determines how people sift through and process information. People may be inclined to choose information that is consistent with their cognitive beliefs and ignore information that is inconsistent with them. This filtering of information affects the information relied upon during the problem-solving process and can lead to limited vision or bias.

Cognitive conception influences the way of thinking and strategies people choose to solve problems. Different cognitive concepts may lead to the use of different modes of thinking, such as induction, deduction, comparison, analogy, etc. The choice of these ways of thinking and strategies will affect the effect of problem solving. At the same time, the cognitive concept has a direct influence on the judgment and decision-making process. A person's values and beliefs can influence how they interpret and weigh information, which in turn affects their decision-making. For example, an individual's conservative views may lead to more conservative decisions, while an open perception may lead to more open decisions.

Cognitive perceptions can also influence creativity in problem solving. Some perceptions may encourage innovative and novel solutions, while others may focus more on traditional and conventional solutions. Cognitive beliefs also change our adaptability in the face of challenges and difficulties. Some cognitive beliefs may make people more resilient to setbacks and adversity, while others may lead to anxiety or negative emotions.

To sum up, cognitive perception has an important impact on decision-making and problem-solving ability. Understanding our own perceptions, and learning to accept different perceptions, can help people understand problems more fully, solve problems more flexibly, and make smarter decisions. This also highlights the importance of interdisciplinary and cross-cultural cognitive diversity, as

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4.3. Social Interaction

The application of cognitive concepts in social interaction is multifaceted. They affect emotion recognition and expression, social cognition and understanding, social judgment and reasoning, communication and communication, conflict resolution and negotiation, and self-concept and other concepts. The application of cognitive concepts in social interaction involves the cognitive process of individuals about themselves and others, and how to deal with and understand social interaction. Individuals' cognitive beliefs influence their ability to perceive their own and others' emotional states. An individual with a high level of emotional intelligence may have an easier time understanding the emotional expressions of others and thus be better able to connect emotionally with them. In addition, cognitive perceptions influence how a person expresses their emotions, and thus the quality of social interactions. A person's cognitive perception can make it easier for him to identify the needs, intentions, and expectations of others, and thus better adapt and cooperate with others. This ability for social cognition plays a key role in coordinating and resolving conflicts, building close relationships, and working together in teams.

In addition, cognitive perceptions influence the process of social judgment and reasoning. In social interactions, individuals are required to make a variety of judgments, such as assessing the honesty, trustworthiness, and intent of others. Cognitive perceptions influence the basis and criteria for these

judgments. An individual's perception of interpersonal trust may lead to a greater tendency to trust others, while a skeptical perception may make him more cautious. A person's cognitive beliefs influence the communication strategies, words and expressions they choose. For example, a person's idea of social culture may influence his communication style, while a person's idea of emotional intelligence may influence his expression.

Cognitive perceptions can also influence how individuals deal with conflict and negotiation. A person's concept of conflict resolution may influence whether they are more inclined to compromise or to stand their ground. Cognitive conception shape an individual's conception of himself and others. A positive perception of self may increase self-esteem and make individuals more confident, while a positive perception of others may promote understanding and compassion. These concepts affect the quality of relationships and social interactions.

Understanding and cultivating positive cognitive perceptions is essential for building healthy relationships, successful cooperation, and effective social interactions. On an individual level, improving self-awareness and developing skills such as emotional intelligence can help improve social skills. In the field of organization and education, understanding the role of cognitive concepts can help develop more effective training and social development programs.

5. Conclusion

In this paper, how the stimuli of cognitive memory affect the formation of cognitive conception. Through literature review and experimental research, stimuli establish a close link between memory and cognition, which has a profound impact on individual learning, decision making and knowledge construction. This research provides new insight into the complexity of cognitive memory and helps to reveal the importance of stimuli to cognitive processes. This study can provide valuable reference and inspiration for future cognitive psychology research.

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