Memory as a constructive and active process



Memory is a constructive and active process. Evaluate this claim.

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To evaluate the notion that memory is a constructive process an assessment of some of theresearch[p1]on the exploration of memory is required. Brace and Roth (2007) argue that memory is a constructive and active process rather than a "passive mechanism for recording external information" (Brace and Roth, 2007, pg. 130). However, it can be argued that memory is not exclusively constructive and active but also includes passive elements. This can be seen through the constructive reconstruction techniques and a study conducted by Godden and Braddeley (1975), which demonstrated that active learning alongside passive environment interaction that create extra retrieval cues for context reinstatement. These techniques show that linking passive processing of an environment can aid in the active process of memory retention and recollection.

Memories are formed from information perceived through all the senses, after which information is coded and stored. Memory can be broken down into three components, Encoding, Storage, and Retrieval. Encoding is the process (in) by which information is stored in a person's memory. Sensory information, information from the outside world, is transferred and coded into memory systems. There are at least two ways that sensory information can be coded. Visual codding, where shapes, words and/or objects, are received through visual receptors which in turn form the bases for the meaning of said objects and a coustic coding, which codes particular sounds, like a word or the sound an object makes, similarly linking this information to the meaning of specific sounds, either of words and/or objects. This process

of encoding suggests that there is an active process in learning the association between specific sounds or objects and their specific meanings and interpretations, which are subsequently stored in a person'smemory[p2]. Memories are crucial for everyday human functions. Without memory all interactions and experiences would not be stored in memory systems inhibiting the development as individuals and a society. Erik Erikson 's research claimed that identity and memory were directly related to the development of individuality and society (Phoenix, 2007, pg. 53). Erikson[p3]stated that " a conscious sense of individual uniqueness... an unconscious striving for continuity..." (Phoenix, 2007, pg. 53). This suggests that memory is an active process in which helps in the development toward the idea of ' who we are'.

Storage processes are the means through which information is (coded and) then stored within a person's memory. Memory is a function that psychologists are long trying to understandThe first psychologist to conceptualise memory as involving different systems was William James (1890). James proposed that the primary memory system involved conscious use of mental activity while the secondary system was for storing knowledge and experiences. James' theory of different memory subsystems is still being used, however other research has since been conducted that shows that memory can be broken down into three main processes, *Sensory Memory*, holds sensory information from the outside world for a brief moment. *Short-Term Memory* holds coded information for a few seconds or minutes, and *Long Term Memory* holds coded information in a robust form for many years. (Brace and Roth, 2007, pg. 115).

There are different ways to study memory function, from methods such as laboratory experiments, quasi-experiments and field experiments (Brace and Roth, 2007, pg. 117) . . Brace and Roth state that "memory is an active, selective, and constructive process rather than a passive mechanism for recording external information." (Brace and Roth, 2007, pg. 130). However, this can be challenged through techniques like 'Retrieval-Enhancing Techniques'. (These' are the techniques) used by police officers when interviewing witnesses to aid in memory retrieval of a particular event . The different retrieval-enhancing techniques that are adopted are context reinstatement, where a person is as to recall the physical surroundings, including light, temperature and smells. Recalling everything where a witness is asked to recall everything from a particular incident, whether they think it is relevant or not . This is because retrieving one piece of information, important or not, can assist in the retrieval of other pieces of information that may not be as easily remembered . . Recalling in different temporal orders where trying to recall an event either from start to finish, or in reverse, starting with the last memory, using salient aspects of the event and working either forward or backward from that specific point (Brace and Roth, 2007, pg. 125). There is sufficient evidence that supports memory retrieval through cognitive interviews. It demonstrates the ability to recall information that would not otherwise be actively processed, but could be perceived, in at least one way or another, through particular senses, such as smell, sounds or tastes.

Godden and Braddeley (1975) researched *Context Reinstatement (* Godden and Braddeley) They designed a study that required participants to learn a

list of 40 words while underwater or on land. The results showed that the word (were) recall was 40% higher when the recall situation was the same as the learning environment, compared to (that) when the environments were different (switched) (Brace and Roth, 2007, pg. 127). It can be argued that these results show that memory is in fact active in some respects and passive others in that it demonstrates links between the passive interpretation of an environment to the active process of storing and recallingwords[p4] . Subsequently participant s that were asked to recall the word list in (the opposite) a different environment remember less as the opposite environment provided no cues. (such) . Endel Tulving (1983) explained the relationship between storing and recalling as stronger when " retrieval overlap or match with cues that were registered at encoding" (Brace and Roth, 2007, pg. 126).

However, memory is pliable and recollection can be influenced by post event information as well as previous mental images and thought processes.

Bartlett (1932) described these changes in recognition and recall as being "unwitting[p5]." Research by Bartlett illustrated that when actively recalling new information, in order to make sense of it, a person relies on past knowledge and experiences . . Bartlett designed an experiment which highlighted influences of social factors on memory . . The experiment included participants reading an extract and then asked to recall as much of the extract as possible . . It was found that when new information was recalled the recognition was different to the original information . . He noted that unusual descriptions were changed into standard descriptions, for example, "something black came out of his mouth" became "foamed at the

mouth" . . Other changes occurred through rationalisations and omission of materials (Brace and Roth, 2007, pg. 132) . . Bartlett explains this as 'effect after meaning' in that past experiences, unconsciously and/or passively, intertwine with new information to help interpret and make sense of the new information . . These particular observations supported the idea that memory adopts both active and passive processing when processing new information making memory pliable and influential (Brace and Roth, 2007, pg. 133).

Another example that demonstrates that memory is able to passive process information is through the works of Craik and Lckhart (1972) . . Craik and Lockhart proposed two different levels of processing, shallow and deep . . They suggest that 'shallow' level processing is simple coded information in terms of physical characteristics, shapes and sounds . . ' Deep' level coding is information that is processed is assigned a meaning (Brace and Roth, 2007, pg. 119). This theory led Craik and Tulving (1975) to further investigate these different levels . . A study conducted by Craik and Tulving demonstrates the abilities of incidental learning against intentional learning. . This required participants with in the study to try not actively remember the words in the stimuli, as to 'only' demonstrate the capabilities of incidental learning. The results found that people were more likely to incidentally learn words that they came across during the semantic task (word that fit into sentences), and less likely to incidentally learn the words in the structural task (words in block capitals), and an intermediate amount of acoustic learn words (words based on rhyme) (Brace and Roth, 2007, pg. 120). This notion of incidental learning would suggest that the memory processes are also being passively stored to memory systems, as one of the main requirements

was that participants were asked to try not actively learn anything during testing and yet their memory still subconsciously encodes and stores the information.

In evaluating the notion that memory is a constructive process the assessment on some of the research in exploration of memory systems suggests that memory is not only constructive and active process, but a passive one as well . . It cannot be stated that memory is not an active process, as this is evident in the active process of visual and acoustic encoding, and that encoded information is key everyday human function, development and interactions. However it can be argued that memory is also a passive processes, in which sensory information is taken in and linked with active memory processes through environmental interactions or already established schemas . . This can be seen and argued through multiple studies. The results of Godden and Braddeley (1975) demo n strate that memory is active and passive in that it highlights links between the passive interpretation of an environment to the active process of storing and recalling words. Which is explained by Tu r lying that when "retrieval overlap or match with cues that were registered at encoding" (Brace and Roth, 2007, pg. 126) . . However Bartletts discussion of the pliability of memory, due to the notion that memories are processed and understood using already established schemas, and that Incidental and intentional learning, further supports the argument that memory adopts both an active and passive process when processing and/or applying meaning to new information.

Words: 1637

References

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Phoenix. A. (2007) ' *Identity and Diversity*' in D. Miell, A. Phoenix, & K. Thomas (Eds.), *Mapping Psychology* (2nd ed., pp. 45-92). Milton Keynes, The Open University.

[p1]Though you have explain the issue to some extent- this cannot be said to be an introduction, as you are referring to terms and studies that have not yet been explained, You also need to inform the reader you mean to answer the question, and how it is to be organised.

[p2]Though things can be stored in memory passively, without us attending to them.

[p3]This quote is not really relevant to the question, and as above, there are elements of memory storage that occur without consciousness.

[p4]I didn't understand this point in the introduction, but it makes sense this time!

[p5]Note that recognition is matching something to what is already in memory, whereas recall is retrieving something stored in memory.