

# The multi store model and the reconstructive model psychology essay



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In this essay there are two memory models what are compared. The memory models are the ' Multi Store Model' and the ' Reconstructive Model'. It shows how the models work, some studies which have been done experimenting the model, advantages and disadvantages to the models.

The multi store model is a theory by Atkinson and Shiffrin (1968). They say that memory uses a number of different processes and that there is actually more than one kind of memory store. There is three parts to the multi store model: sensory memory, short term memory and long term memory. The process starts at sensory memory where you use your senses: Sight, smell, hearing, touch and taste to receive and store information. The information here doesn't last very long from milliseconds to two seconds, just long enough for it to transfer to short term memory. To get to short term memory you use the process, encoding. Encoding means taking the information and making a memory trace. There are three types of encoding: Acoustic, visual and semantic. Acoustic is repeating the topic; you would say or sing the words in your head. Visual is where you would try to see the topic in your head and try to picture it. Semantic encoding is what it means to you e. g. a favourite birthday present, something that has a personal meaning. If the information is not attended to from sensory memory to short term memory this can be lost. The information that has been attended to then rehearsed will go to store in long term memory. (AS Level Psychology)

Peterson and Peterson (1959) did a study that supported the multi store model for the duration of short term memory; they named the study ' Trigram Retention Experiment' also known as ' TRE'. The study was highly controlled and the people all started on the same ' base level'. Their aim of <https://assignbuster.com/the-multi-store-model-and-the-reconstructive-model-psychology-essay/>

the study was to see what the duration of short term memory would be if you did no rehearsal. When they tested this, the people who partook in the trigram, were read three letters. These three constants were randomly picked and had no meaning e. g. CWT. immediately after been given this the people had to count backwards in three's starting with a very large three digit number. This was called the 'distractor task' they had to do it for a specified time and it was designed so that you could not rehearse the 'TRE'. The time period was called 'The retention interval' and this varied from 3 seconds to 18 seconds. Then when told, the people had to recall the trigram. The letters had to be said exactly the same. They found that nearly all the people who recalled after a three second retention interval were successful. Then when they did it at 18 seconds, only very few people could recall the 'TRE'. Doing this study found out that without rehearsing things the duration of short term memory is very short. So this shows that without rehearsal memory is very limited. There were criticisms to this theory though, it was said that the 'distractor task' did prevent rehearsal, but it also meant that the people were doing an additional processing task so this may have affected their recall scores. (Essential AS Psychology for AQA, Richard Gross and Geoff Rolls)

Shallice and Warrington (1970) also did a study which supported the multi store model they reported a case where someone had, had a motorbike accident. This resulted in him now having extremely poor short term memory. However his short term memory what he couldn't remember was only for verbal information. His visual and acoustic was normal. This suggests there is more than one type of short term memory, not

incorporated in the multi store model. He could only remember one or two digits. Yet his long term memory after the accident was normal. This is in support with the multi store model, because it provides evidence to show that short term memory and long term memory stores are separate.

The reconstructive model of memory was a theory by Bartlett (1932). He said that memory is unlike a camera, that it's not accurate and the interpretations are based on each person's memories and previous experiences. (Essential Psychology). People tend to be selective about what bit of event they remember. This can be a problem though when needing an accurate recall. Schemas are a major part in reconstructive memory.

Schemas are our own ready made expectation of a scenario. They 'fill the gaps' in our own knowledge. Schemas can lead to memory distortions when information doesn't already fit in to the existing schemas we have. There is also a lot of influence to memory from stereo-typing and cultural expectations. (Essential AS Psychology). The eye witness testimony also known as 'EWT' is for criminal incidents that people have seen. Eye witness testimony may not always be accurate; it can be influenced by a lot of different things like anxiety, age and even leading questions. If you were to witness a crime it would make you anxious. There are advantages to knowing that the eye witness testimony is not always accurate, this warns us and helps us to know we do have to treat with care.

Bartlett (1932) did a study on the reconstructive memory called 'War of the Ghosts'. He did this study to investigate the effect of previous experiences and expectations have on memory recall. A group of people were shown a drawing or a short story, which was the 'war of the ghosts', to look and read <https://assignbuster.com/the-multi-store-model-and-the-reconstructive-model-psychology-essay/>

through. The group of people then had to reproduce the story or drawing after different time periods. The time periods ranged from fifteen minutes to years later, this was called a 'repeated reproduction technique'. Over time they found that the group of people produced shorter more clear and carefully thought out versions, more ordinary. They had made the story sound more normal e. g. instead of using the word 'canoes' they used the word 'boats'. They only recalled the basic storyline. In conclusion to this study they found that an explanation or opinion plays a major role in remembering. An active process of reconstruction is remembering, Bartlett called this the 'effort after meaning', that is making the past more ordinary and normal so that it fits in to our existing knowledge or schemas. This study in psychology is regarded as a 'classic'. Although there are criticisms to this study, it was said that it was a 'poorly controlled study' that Bartlett may have been biased in the interpretations of the different stories. There was also another argument saying the story was very different and unusual. There have been other studies which have done real life everyday memories, which over time were successful. The study was by Wynn and Logie (1998).

There is also the study of the unreliability of the eye witness testimony which was done by Loftus and Palmer (1974). They studied 'smash/ contacted' car speed study. The aim of this study was to investigate an immediate recall from the effect of language the group of people use after being asked leading questions. The group of people were shown some slides of an accident which involved two cars. The group were split into two groups, by asking some "about how fast were the cars going when they smashed in to each other?" for the other set of people they were asked the same but

instead of using the word 'smashed' they said 'hit', 'bumped' and 'contacted'. From doing this study they found that from using different words people's opinions of the speed were very different. The difference of using the word 'smashed' was higher than the ones who were asked 'bumped', 'hit' and 'contacted'. So this proves there is an effect when using leading questions.

The reconstructive model does provide us with a good explanation of everyday memory. But that we don't have perfect memories. There are disadvantages to the reconstructive memory model there is no information on how we can improve our memory. Also it is more opinion based, because this model of memory assumes that memories are so complicated. Some predictions cannot be made, so we cannot predict what information will be and won't be remembered, as we don't know what a person's schemas are.

In conclusion to this, Atkinson and Schiffrin's model of the multi store model is one of the best known models of memory, but this doesn't necessarily mean it's the best theory. It's a very simple and straight forward theory, but in some ways it's too simplistic. It shows that rehearsal doesn't always work, and that you cannot rehearse smells and sights. The reconstructive model is more reliable as it's based more on everyday life. It explains that the eye witness testimony is not always accurate and not to fully trust it as much. It also states that we don't have perfect memories. The reconstructive model also helps us to understand how our previous knowledge effects our interpretations of memory.