Outline and evaluate an alternative to the Multi-store Model of Memory

There are many different explanations as to how we remember things. One of the most basic is Atkinson and Shiffrin's multi store model of memory. This indicates that you see things, then they go into your short-term memory, and then if they are processed they will go into your long term memory. One of the most important things that influences whether something goes into your long-term memory is rehearsal. If you rehearse things, for example, say things over and over again or keep it in your mind for a longer period of time, then it is more likely that it will go into your long-term memory.

Craik and Lockhart put forward the levels-of-processing theory, which is an alternative to Atkinson and Shiffrin's Multi-store Model of Memory, because they felt that rehearsal wasn't enough to get data from STM into LTM. This theory states that the depth of processing of an item has a big effect on its memorability, e.g. how well you remember the item. They said that when items are deeply or semantically processed, it means you can remember the item for longer, more elaborately and the memory is stronger. This is compared to phonemic and shallow processing where the memory is not as strong. The assumption of this is that in deep processing, the meaning of the word gets processed too, and this therefore leads to a better long-term memory of it. However, the meaning doesn't get processed in shallow processing, therefore the long-term memory of it is poor, if there is any long-term memory of it at all. There are three other types of deep processing, these being elaboration (thinking more about the item), distinctiveness (unique things are easier to remember) and organisation. Strengths of the theory include the fact that it offers a model that can help you improve your memory e.g. if you can't remember something, don't just rehearse it, memorise the meaning of it. Also, before this theory was put forward, the view was that memory can be explained in terms of structure and rehearsal, so this theory had a major impact. However, there are some criticisms to this theory. For example, it doesn't explain why deeper processing leads to better memory. It's also hard to establish whether a particular task involves shallow or deep processing.

Craik and Tulving conducted a study that they used to support the level-of-processing theory. In this experiment, they used semantic processing as a form of deep processing, and the physical analysis of a stimulus to represent shallower processing. They found that words that were semantically processed and therefore deeply processed were remembered better than the words that were shallowly processed. However, the shallow processing task lacked mundane realism and it is not clear that we ever really process information this way. If the participants had read the words quickly it would be more realistic as people do this in real life. Also, participants may not have stopped at the expected level of processing, especially if they guessed it was a memory test and therefore tried to remember the items more, so there is a problem with demand characteristics.

In 1966, Baddeley conducted an experiment on how information in STM was stored. He gave participants two lists of words - the first in which the words were acoustically similar (shallow processing) and the second semantically similar (deep processing). He found that recall was better for the semantically similar words, which suggested that information was stored in STM acoustically. Therefore, to get something into the LTM and therefore remember it, it would need to be stored semantically - which supports the levels-of-processing theory because it says that something needs to be semantically processed for you to remember it in the long-term. However, as with Craik and Tulving's study, this lacks mundane realism and ecological validity and therefore cannot be generalised to real life situations.

In 1977, Morris, Bransford, and Franks found that stored information is remembered only if it is relevant to the memory test. Their participants were tested with a rhyming recognition test in which they were given some words and were then asked which words rhymed with the words previously presented. None of the words on the list were presented in the last test. Participants remembered words that had been processed in terms of their sound (shallow processing) instead of those that had been processed in terms of their meaning (deep processing). This goes against the levels-of-processing theory because that states that deep processing is always better than shallow processing. The reason that shallow processing was better in this case was shallow processing was much more relevant and related to rhyming because it's to do with sound, rather than meaning. However, this experiment lacks mundane realism, as people wouldn't be doing this in real life.