Outline and evaluate research relating to the linguistic relativity hypothesis

The linguistic relativity hypothesis was put forward by Whorf, and states that language determines, or directly influences, thinking. This theory was further developed by Sapir, and again by Miller & McNeill, giving rise to three different hypotheses: the 'strong' hypothesis is that of Whorf, which suggests that language completely determines the way in which we think about the world. Sapir's 'weak' hypothesis suggests that language only has an influence on thought, therefore giving a more cautious approach. The 'weakest' hypothesis was proposed by Miller & McNeill, suggesting that language differences affect processing on certain tasks where linguistic encoding is particularly important (such as memories and certain schemata).

Much support for the linguistic relativity hypothesis has come from the study of differences between the thought processes of speakers of different languages. One type of such study is one which investigates colour words and the ability to discriminate between colours, as this is a factor that varies widely from one language to another. Brown & Lenneberg studied Zuni speakers in New Mexico, whose language had no separate word to describe yellow and orange, and found that they had difficulty in a task that required them to distinguish the two. This appears to support the hypothesis, but there has been research to indicate the contrary. Challenging research comes from Rosch, who studied speakers of Dani (a language of New Guinea). Dani has no words for separate colours, instead only distinguishing brightness, and yet its speakers were successful in tasks that required them to distinguish between a wide array of colours. This challenges the linguistic relativity hypothesis because it is an example where language is not necessarily required to perform tasks based on the colours, but it may still support the 'weakest' hypothesis (as the colours may have been distinguished by their brightness). A wide range of research has had conflicting findings with regard to how speakers of different languages distinguish colours, but Davies & Corbett conclude that we may have an innate ability to distinguish certain colours, with language and other cultural influences moderating how we think. This proposition would support the weak relativity hypotheses.

Another aspect of language that has been frequently studied in order to test the linguistic relativity hypothesis is grammar. The morphology of Navajo verbs can be affected by properties of the verb's object; for example, verbs that refer to handling objects are affected by the form of the object being handled. By contrast, English does not have this distinction. With relation to the linguistic relativity hypothesis, Carroll & Casagrande tested three groups of people on their categorisation of objects. The three groups were Navajo children who spoke primarily Navajo, Navajo children who spoke both Navajo and English, and English-speaking American children. They found that the monolingual Navajo children were more likely to group objects by shape rather than colour than were the bilinguals, but also that the English-speaking Americans had a tendency towards group-base shapings. This seems strange, and perhaps inconclusive, in that the findings appear to both support and contradict the linguistic relativity hypothesis. That is, the monolingual Navajos placed more emphasis on the shape than the bilinguals (supporting the hypothesis), and yet the English-

speakers placed more emphasis on shape rather than colour (contradicting the hypothesis). However, Carrol & Casagrande explained this by saying that experience and practice with toys, or other cultural participation on the part of the child, could influence their thinking about such objects, as well as language. This once again provides support for the weak hypotheses, because it demonstrates language working alongside other factors to affect thought.

Piaget's theory of cognitive development describes language as being the successor of knowledge: in other words, he believed that it is thought that influences language rather than the other way round, contrary to the linguistic relativity hypothesis. The theory indicates that children may not develop the cognitive ability to conserve, for example, to draw comparisons (*e.g.* 'bigger'), until they have developed the ability to understand absolutes (*e.g.* 'big'). This view is supported by De Zwart, who found that training children to use more descriptive language did not affect their cognition. For example, although they may be able to use comparative language, they are still not able to realise that the same amount of water in two different-shaped glasses is still the same amount. This indicates that thought precedes language, and therefore supports Piaget's theory.

A primary criticism of research into this area of cognitive psychology is that scientific evidence is inconclusive. Many of the conclusions relies on assumptions made after the findings had been gathered, and therefore remain untested and may lack validity. Additionally, the research largely focuses on very specific aspects of language such as colour, grammar and abstraction, which may be a reductionist approach that ignores other factors. This also brings into question whether this research can be used to criticise or support the linguistic relativity hypothesis.