

To what extent does language influence thought? essay

[Design](#)



“ Language shapes the way we think, and determines what we can think about. ” - Benjamin Lee Whorf Introduction The idea that language affects the way we remember things and the way we perceive the world was first introduced by the influential linguists Edward Sapir and Benjamin Lee Whorf (Harley, 2008). The central idea of the Sapir-Whorf hypothesis, today more commonly known as the linguistic relativity hypothesis, holds that “ each language embodies a worldview, with quite different languages embodying quite different views, so that speakers of different languages think about the world in quite different ways” (Swoyer, 2003). In the late 1990s, Cameron claimed that the Sapir-Whorf hypothesis was regarded as “ that which must be refuted at all costs” (1999) and it continued to be widely regarded as false during the second half of the 20th century (Casasanto, 2012). Still, the relationship between language and thought is one that has been studied even long before Sapir and Whorf, from German philosopher Wilhelm von Humboldt to works of fiction such as George Orwell’s 1984.

This study aims to further review and expand upon previous research, following experimental evidence that reopened the debate at the turn of the 21st century in contemporary psycholinguistics. This ensuring debate, the extent to which language shapes nonlinguistic cognition and perception will be revisited. Moreover, this paper will consider the debate in context of cross-cultural implications.

The extent to which people from different cultures construe, analyze and interact with the world differently will be analyzed. For the purpose of this paper, the Chinese (Mandarin) and English languages will be focused on in particular. Building upon existing literature, this paper will consider two <https://assignbuster.com/to-what-extent-does-language-influence-thought-essay/>

central thesis statements: 1.)The use of spatiotemporal metaphors affect the way individuals think about time in the long term. .)Language has an indirect effect on cognition. The first statement will focus on the construct of time and how it is perceived differently between the English and Mandarin languages. Furthermore, the long-term implications of metaphor use for thought processing will be discussed, and the extent to which these implications differ between the two Eastern and Western languages.

The second statement takes on a more neurological role and will consider different features of language that affect different cognitive structures and processes. The Linguistic Relativity Hypothesis The original Sapir-Whorf hypothesis consists of two related ideas, linguistic determinism and linguistic relativity. According to Harley (2008), linguistic determinism is the idea that “ the form and characteristics of our language determine the way in which we think, remember, and perceive”, while linguistic relativism is the idea that “ as different language map onto the world in different ways, different languages will generate different cognitive structures” (p. 9-90).

There are three recognized versions of the Sapir-Whorf hypothesis, as distinguished by Miller and McNeill (1969) as the strong, weaker and weakest versions. The strong version states that language determines thought, while in the weaker version language affects only perception and finally the weakest version presents that language differences affect processing on certain tasks where linguistic coding is important (Harley, 2008). There is the most research and support concerning the weakest version, and previous research has confirmed that it is the easiest one to test for (Harley, 2008).

The differences in peoples' " world view" (Harley, 2008) proposed by the Sapir-Whorf hypothesis allows for an interesting cross-cultural investigation into linguistic diversity and the effect on the mind/brain. Whorf himself studied in great detail Native American Indian languages (Harley, 2008) and he found that in one of these, the Hopi language had no words or grammatical constructions for the conception of time.

He therefore concluded that these differences in the cultural lexicon would result Hopi-speaking people having a different perception of time compared to that of English, for example. Previous research by Malotki (1983) indicated that this finding was never approved as reliable data. This dilemma will be analyzed later on in reference to a contemporary study consisting of English and Mandarin native speakers and their ensuing concepts of time. The Concept of Time in English and Mandarin Research by Lera Boroditsky (2001) posed many interesting questions regarding linguistic diversity and the resultant interplay between language and thought: whether linguistic diversity stimulates different ways of thinking, whether learning new languages changes the way one thinks, whether bilingual and multilingual people think differently when speaking different languages. Clark (2003) maintains that although language does not indicate a complete map of consciousness or thought, it is at least a " representational map" that varies across languages. Spatial metaphors are used to specify these different aspects of time in our experience with the world (Boroditsky, 2000). Examples of spatial metaphors for time include looking forward to something, falling behind schedule, or planning ahead.

Results from Boroditsky's study indicated that there were indeed differences in spatial metaphors employed between English and Mandarin; while in English front/back terms are predominantly used to conceptualize time, Mandarin speakers also use vertical metaphors as well as front/back terms to talk about time (2001). Although vertical terms can also be used in English to conceptualize time, e. g. er birthday is coming up, it is not used nearly as much as compared to that of Mandarin. For example Figure 2 from Boroditsky's study (2001) shows the use of Mandarin words sha`ng (" up") and xia (" down") which are used in relation to English terms of " last" (previous) and " next" (following). The impact of one's choice of spatiotemporal metaphors across cultures can affect the way individuals think about time in the long run (Boroditsky, 2001) for instance where native English speakers perceive time horizontally while native Mandarin speakers perceive time vertically. Criticism against Boroditsky's research was put forward by Chen (2007) in his study Do Chinese and English speakers think about time differently? Failure of replicating Boroditsky (2001), where he found that native Chinese speakers actually use horizontal spatial metaphors more often than vertical metaphors.

However, Boroditsky's claim that native English speakers use horizontal spatial metaphors consistently more often compared to native Chinese speakers, who systematically use vertical metaphors has been supported in numerous other researches, in contrast to Chen's single opposition (2007). This is supported by Harley (2008), " Mandarin speakers are most likely to construct vertical timelines to think about time, while English speakers are more likely to construct horizontal ones" (p. 97), in line with Boroditsky's <https://assignbuster.com/to-what-extent-does-language-influence-thought-essay/>

study (2001). Figure 1 The Features of Language and its Impact on Cognitive Processes The aim of scientific tests of linguistic determinism (strong version) and linguistic relativity (weak version) is to “ clarify what is universal in the human mind and what depends on the particulars of people’s physical and social experience” (Casasanto, 2012). The previous section investigated the significance of linguistic diversity and vocabulary differences in influencing different frames of perception between people and particularly across cultures. I now aim to consider possible cognitive consequences of these differences in language. Examples of indirect effects of language on cognition can be observed in basic grammatical differences, number systems, linguistic encoding, color-coding and memory for color. Grammatical Differences According to Harley (2008) another difference between English and Chinese languages is the ability to encode counterfactuals through their expression of language.

Counter-factual thinking is often used as a form of expression in the English language, i. e. “ If I had gone to bed earlier last night, I wouldn’t be so tired now. ” This draws upon the subjective mood, which is easily encoded into counterfactuals within the English language. The fundamental difference is that the Chinese language does not have a subjective mood, and supporting evidence by Bloom (1981, 1984) indicated that native Chinese speakers consequently found it harder to reason counter-factually, attributing this to their lack of a subjective construction (as cited in Harley, 2008). Research by Au (1983, 1984) and Liu, (1985) found that complex constructions can be used in Chinese to argue counter-factually, i.

e. “ Mrs Wong does not know English; if Mrs Wong knew English, she would be able to read the New York Times” (as cited in Harley, 2008). However, counter-factual thinking is not used nearly as commonly in the Chinese language compared to the English language, and it is evident that native Chinese speakers still indicate difficulty apprehending counter-factual reasoning compared to native English speakers. Number Systems Native English and native Mandarin speaker’s differences in the way they conceptualize time via use of language relates to how vocabulary differences reflect differences in experience and expertise (Harley, 2008) that are generally culturally bound. Members of the Piraha tribe in the Amazon, for instance have two distinct words for the numbers “ one”, “ two”, and then “ many”. Research by Gordon (2004) found that their performance on various numerical tasks particularly for quantities greater than three was consequently “ very poor” (as cited in Harley, 2008). In this way, where the English language allows us to count above two, these number words lacking in the language of the Piraha tribe limits their cognitive abilities comparatively, by not having equivalent words available for a comparable frame of reference.

Linguistic Encoding Research by Carmichael, Hogan, and Walter (1932) put forward further evidence that language can have an indirect effect on cognition (as cited in Harley, 2008). Their research focused on linguistic encoding, studying the effects of learning a verbal label on participants’ memory for “ nonsense pictures” (Harley, 2008, p. 92). Results of their study indicated that the label associated with the picture was significant in influencing participants’ recall of the pictures. Supporting evidence was

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provided by Santa and Ranken (1972), which found that a subjective verbal label was significant in stimulating the recall of nonsense shapes (as cited in Harley, 2008). Considering the relationship between linguistic terms and cognitive categories is highly interesting yet a challenging process and continues to pose further questions, whether such categories exist prior to being articulated by language and are then merely enhanced or diminished by language experience (Tohidian, & Tabatabaie, 2010). The findings from Carmichael et al. 's study (1932) indicate participants' perceptions and the way people remember things is as dependent on knowledge as it is on the initial stimulus that is presented.

Color-coding and Memory for Color Finally, language can manipulate the basic structure of how and what we perceive in the external environment, changing our construal of the world at the most basic stages of processing. The way in which we name and remember colors has proved to be “ The most fruitful way of investigating the strong version of the Sapir-Whorf hypothesis” (Harley, 2008, p. 94). A cross-cultural example is the subdivision of different races through language, affecting the ability of individuals who speak English, Russian, Korean, Himba, Tarahumara and Greek to perceptually discriminate colors. These differences in processing can be observed in the brain at so little as a 100 milliseconds after a color is presented to a subject (Boroditsky, 2010). Research by Harley (2008) found that “ Codable colors” (p. 94) and “ communication accuracy” (p.

94) are important factors that influence our mental representations and processing of colors. Therefore, colors that have simple names and that are

easy to describe are easiest to remember (Harley, 2008).

Conclusion Following the fade out of linguistic relativity in the second half of the 20th century, it is interesting to reconsider the debate that continued to ensue since the turn of the 21st century, reestablishing a case for the linguistic relativity hypothesis. Although previous research has consistently indicated support for the weakest version of the linguistic relativity hypothesis alone, subsequent research by Boroditsky (2001) has challenged weaker yet significant formulations to be entertained regarding the strong version, literally inferring that language shapes thought. Differences between culturally defined lexicons and frames of reference are evident in the use of spatial temporal metaphors, which indicate discrepancies in how native English speakers and native Mandarin speakers conceptualize the concept of time. Furthermore, the indirect effects of language on cognition are evident in numerous features of language: basic grammatical differences, number systems, linguistic encoding. Even color-coding, perception and memory for color, which was previously thought to be biologically determined provides evidence that features of language are important, and linguistic factors can influence our cognitive processes to some extent. It is incontrovertible that there is an important link between environmental and biological factors that determine our basic cognitive processing and thought.

All of the above mentioned linguistic features are significant in creating and fostering our culturally determined “ world view” which constructs a mental frame of reference for the way in which individuals perceive and make sense of the world. References Au, T. K. (1983).

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Tohidian, I. & Mir Tabatabaie, S. M. (2010). Considering the Relationship Between Language, Culture and Cognition to Scrutinize the Lexical Influences on Cognition. *Current Psychology*, 29, pp: 52-70. Appendix 1 Figure 2