The given quotation, taken from Wittgenstein’s book ‘Tractatus Logico-Philosophicus’[[1]](#footnote-1), published in 1921, forms the basis of the theory of linguistic relativism, also known as the Sapir-Whorf Hypothesis, which states that the language one speaks profoundly affects, and even limits, the way in which we think.

In Whorf’s 1936 paper ‘An American Indian model of the Universe’[[2]](#footnote-2), he wrote what later became known as the “Hopi time controversy”, which provided the main justification for linguistic relativism. In it he stated that ‘the Hopi language is seen to contain no words, grammatical forms, construction or expressions that refer directly to what we call 'time', or to past, present or future’. He concluded that the Hopi have ‘no general notion or intuition of time as a smooth flowing continuum in which everything in the universe proceeds at equal rate, out of a future, through the present, into a past’, and therefore cannot understand it. This key piece of evidence was however refuted by Ekkehart Malotki’s ‘Hopi Time’ (1983), which gave hundreds of examples of Hopi words and grammatical structures that referred to time. “Among the numerous suffixes that the Hopi verb can select to mark the grammatical categories of aspect, mode and tense, one is specifically reserved to refer to time.” This work was seen to be the proverbial final nail in the coffin of linguistic relativism, which had already been widely refuted by Chomsky’s counter-theory of Universal Grammar, which stated that language ability is hard-wired into our brains.

Chomsky’s theory of Universalism is supported by the ‘Poverty of the stimulus’ argument[[3]](#footnote-3), coined in his work ‘Rules and Representations’ (1980)[[4]](#footnote-4). This asserts that natural language grammar is unlearnable due to language learners only being presented with positive evidence of grammar patterns. He concluded that humans must have some sort of innate linguistic capacity which supplemented this knowledge. His findings are supported by Berlin and Kay’s study detailed in their 1969 book ‘Basic Colour Terms: Their Universality and Evolution’[[5]](#footnote-5), which demonstrated that in the twenty languages studied from several language families, the terms for colours followed a specific evolutionary pattern. All languages studied had words for black or dark and white or light, followed by red if a language contained three terms and so on. The study also showed that the term for “red”, for example, in each language, roughly corresponded to the equivalent shade in the Munsell colour system. This also leant weight to the notion of universal grammar.

However, Chomsky’s theory has recently been challenged by arguably the most convincing counter-example to universal grammar, that being Daniel Everett’s extensive research on the Pirahã language. Everett claimed in his 2005 paper ‘Cultural Constraints on Grammar and Cognition in Pirahã: Another Look at the Design Features of Human Language’[[6]](#footnote-6)

that Pirahã lacks recursion and embedding. This arguably presents a problem for Universal Grammar, since if this was correct, all languages would show evidence of recursion or similar grammatical structures. Everett’s research thus arguably falsifies the assumption on which modern Chomskyan linguistics is based. The lack of recursion in Pirahã is supported by one of Everett’s experiments. In it he attempted to teach the Pirahã, whose only quantifying words are, according to his 2005 paper, “hói”, meaning “small quantity”, and “hoí”, meaning “larger quantity”, to count in Portuguese. After eight months not a single Pirahã had learned to count to ten. Everett provides two cultural explanations for this and one formal linguistic one. This asserts that numerals and counting are based on [recursion](https://en.wikipedia.org/wiki/Recursion#Recursion_in_language) in the language, so the absence of recursion in their language results in both a lack of counting-ability and of corresponding vocabulary.

Everett’s argument has been countered by many linguists, including Chomsky, who argue that even if Pirahã lacked recursion, there would be no implications for Universalism, which remains the dominant theory in the relationship between language and the mind. However, in recent years Universalism has been countered by a form of neo-Whorfianism, which accepts that language does not constrain human thought, but argues that it still influences our experience of the world. In a 2010 New York Times Magazine article entitled ‘Does Language Shape How You Think?’[[7]](#footnote-7), Guy Deutscher argues that ‘if different languages influence our minds in different ways, this is not because of what our language *allows* us to think but rather because of what it habitually *obliges* us to think *about.’* Using the example of genders, Deutscher explains how when a language obliges its speakers to specify certain information, it forces them to pay attention to specific details in the world, thus affecting their experiences and perceptions of it.

An example of this, is the psychologist Toshi Konishi’s 1993 experiment, ‘The semantics of grammatical gender: A cross-cultural study’[[8]](#footnote-8). This compared the perceptions of speakers of German and Spanish of inanimate objects whose genders are reversed in the two languages. The test was conducted in English, which has no grammatical genders. When asked to assign characteristics to, for example, a bridge, which is masculine in Spanish (“el puente”) and feminine in German (“die Brücke”), Spanish speakers were more likely to assign more masculine properties, such as “strong”, “sturdy” and “towering”, whilst German speakers were more likely to assign more feminine properties, such as “pretty” and “slender”. When asked to do the same for the word “key”, which is feminine in Spanish (“la llave”) and masculine in German (“der Schlüssel”), the effect was reversed. Whilst this does not mean, as classical Sapir-Whorfianism suggests, that speakers of these languages cannot divorce inanimate objects from biological sex, the existence of grammatical genders arguably leads them to view the inanimate world, as Deutscher states, ‘through lenses tinted with associations and emotional responses that English speakers… are entirely oblivious to.’

Neo-Whorfianism is the theoretical, academic support for the practical notion that the cultures associated with various languages have differing perspectives, emphasising slightly different things. In this sense, learning another language does indeed push back the frontiers of the world in which we live. In a 2010 online edition of the Economist’s ‘Johnson Column’[[9]](#footnote-9), the author stated that “speaking a foreign language puts you, psychologically, in the place of the speakers of that language, including in their culture”. This gives the language learner a new perspective on a familiar topic. For example, an English speaker learning French learns of the threat posed by the dominance of English to the French “patrimoine culturel”, whilst someone learning a language such as Hindi, learns of the importance of family in Indian culture, shown by the abundance of kinship words. These include specific words for “father’s elder brother” (“ताऊ/बड़े पापा”) and “younger sister’s husband” (“बहनोई”). Similarly, by learning another language, one is opened up to another country’s views on world events and their importance to them through their newspapers and news programmes. An English speaker learning Spanish for example may notice how Spanish peninsular newspapers tend to focus more on Latin American news than English newspapers. This could arguably be due to their colonial history on the continent as well as the common language between them. Thus by learning Spanish, an English speaker can learn much more about Latin American current affairs than they would from purely English sources.

Knowing more than one language also facilitates international dialogue and communication, not only practically in terms of breaking down language barriers, but also emotionally and psychologically. The new perspectives and understanding of different cultures given by learning another language enables diplomats to better understand the views of each others’ countries on an issue, facilitating compromise, consensus, and cooperation. In international organisations such as the United Nations, speaking more than one of its official languages allows diplomats to communicate freely with more countries, without the need of an intermediary. This means that complex ideas are not lost in translation, facilitating resolution or treaty negotiations. In addition, when UN Peacekeeping Missions are deployed, several countries will contribute peacekeepers, so it is therefore helpful for the participating forces to speak an intermediary language to be able to communicate with each other. In so doing, they can discuss and coordinate peacekeeping strategies. It is also helpful for peacekeepers to speak the language of the country in which they are to be deployed, as this will aid communication with local populations, enabling the peacekeepers to be fully informed of the threats in the area.

On an individual level, knowing another language arguably pushes back emotional boundaries. Many bilingual speakers who learned their second language in their teenage years or adulthood, describe feeling emotionally freer in their non-native tongue due to not having the same emotional attachments to the language. They often report finding it easier to express their deeper thoughts and feelings in their non-native tongue, and even report that their personality is affected by the language they are speaking. Such evidence is anecdotal, yet a study by Boaz Keyser, published in the April 2012 issue of ‘Psychological Science’, shows that the ‘framing effect’ (the phenomenon whereby humans can have different feelings about the same thing and even make different decisions about it, depending on the language used to talk about it) disappears in bilinguals working in their non-native language. This supports the anecdotal evidence of less emotional bias and attachment to a person’s second language. Other studies have found that bilinguals tend to spend more time talking about embarrassing topics in their second language than their first, and that they tend to switch into their non-native language when discussing sensitive topics in psychotherapy sessions. Again, these show how knowing more than one language push back a person’s emotional frontiers.

To conclude, neo-Whorfianism is the most convincing theory to support the emotional and practical ways in which language influences the way we perceive the world. Its acceptance that we are not constrained by language, but that we are undeniably influenced by it in subtle ways, is backed up by numerous studies conducted by a range of psychologists and linguists. Furthermore, it provides the theoretical support to the practical ways in which knowing more than one language pushes back the frontiers of the world in which we live, including personally and emotionally, as well as internationally through the different perspectives discovered through learning another language. The practical advantages of speaking another language can never be underestimated. The evidence of this can be seen daily through the facilitation of dialogue at organisations such as the UN, the European Union, and many international charitable organisations. Knowing more than one language opens up new experiences and perspectives to a person, both literally and metaphorically pushing back frontiers. Thus whilst in a linguistic sense the limits of my language are not the limits of my world, in a metaphorical sense this is exactly the case.

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