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The Impacts of Languages on Thoughts

Language is an alive and constantly evolving creature that allows people to communicate with each other. People deliver their feelings and thoughts to others through language. For this reason, language is undoubtedly one of the most important assets in human life. But what is the connection between human thoughts and language? How does language affect human thoughts? This review is an attempt to analyze the studies conducted by Lera Boroditsky and Guy Deutscher.

Lera Boroditsky¹ is one of the scientists who tackled this topic within one of her Ted-Talks in 2017, she explained the deep relationship the correlates between language and thoughts by providing some vivid examples. She maintained that there are more than 7,000 languages spoken in the world and all of them are of different structures and this according to her raises an important question which is, 'Does language affect people's thoughts?'

Throughout history, people have been thinking about this question and getting different results, as Boroditsky explained. However, in some recent research, scientific data on this question has been reached. To elaborate on this, Boroditsky has given the example of an Australian Aboriginal community that she works with called The Kuuk Thaayore people, they are a small community that live in Pormpuraaw on the west coast of Cape York. The interesting thing about The Kuuk Thaayore is that they do not have right and left concepts in the language that they use. Instead, they use the words such as east, west, north, south. Even when they say 'Hello' it's called 'Which way are you going?'. It may seem difficult to comprehend and yet still their use of these words in their language makes them better at indicating direction than other people. As an example, A child who speaks this language can easily tell the directions in which he/she will go, while many other people have difficulty expressing the direction in which she/he will go in these words.

¹ Lera Boroditsky is a cognitive scientist and professor in the fields of language and cognition. She is an Associate Professor of Cognitive Science at UCSD and Editor in Chief of Frontiers in Cultural Psychology.

Boroditsky exemplifies how language affects our thoughts by explaining through colors. In some languages, for example in English, only the word 'blue' is used for all shades of blue. However, in some languages, there are other words for light and dark shades of blue, as in Russian. Therefore, these people are learning to divide colors into shades. The Russian will be able to distinguish the difference immediately when a people show someone different shades of blue, but when a people show someone the same shades of English, his/her brain will not be able to understand the differences of color shades and will have difficulty finding the difference. At the end of her talk, Boroditsky mentioned that linguistic diversity shows how flexible and dexterous the human mind is. But these languages are dying every day and it is estimated that half of the world's languages will disappear in the next century. According to Boroditsky, science needs to work harder on language and the human mind.

In her article published in 2009, Lera Boroditsky² cites her experiences and work on the same subject. According to her, the idea that language can shape thoughts was often considered wrong. As a result of her work at Stanford University and MIT laboratories, she raised this debatable question again. For this, she collected data from different countries and her final research provided her with a general understanding on how people who speak different languages think differently and how even grammars in languages affect thoughts. To delve more into this, it can be started with simple observations to understand whether language affects thoughts and the difference of languages; Verbs in English vary by time. For example, if people use the word 'read' in the past tense, then it should be pronounced as 'red'. In Indonesian language, people do not change the verb to indicate the time. In Russian, for instance, the verb varies by tense and gender. While, in Turkish, how this information is learned is indicated in the verb when saying information. From the verb form used, it can be understood that the talking person witnesses and receives this information with their own eyes, or learned it only from another place or someone else. As can be seen, each language is spoken differently and highlights different things.

Therefore, can't all these differences of thought be caused only by cultures? Because one of the most important factors affecting people's lives is culture. How can people be sure that the reason for these differences in thinking is language? Boroditsky says that she conducted some experiments in her lab to answer this question. English speakers are taught size metaphors to describe duration, as in Greek, or vertical metaphors used in Mandarin to describe the order of

events. As a result, after English speakers learned about them, their speech began to resemble people who spoke Greek or Mandarin. From here, it can be seen that when a person learns a new language, they also learn the way they think. Even most things that sound meaningless in language have a significant impact on the human subconscious. Looking at the gender divide in languages, there are many languages in the world that are divided into masculine and feminine, as well as languages that are divided into more genders than these two genders, such as some sixteen-sex Australian Aboriginal languages. As can be seen from the experiments, human beings imagine these words according to which gender the words in the language they speak are counted. In other words, they imagine a masculine word more masculine, a feminine word more feminine. This again shows how gender discrimination in language affects thoughts. As it can be seen, language shapes and affects human thoughts about most things. Studies of language and thought show how effective language is in human life and in the decisions people make.

Another article on this topic was written³ by Guy Deutscher⁴ in 2010 where He treats the relationship between language and thought differently. Deutscher cites the Benjamin Lee Whorf's⁵ theory. This interesting and controversial theory states that man can think within the limits allowed by the language. Nevertheless, from 1940 to the present, research has shown that there is no clear evidence of this theory. Research has shown that when people learn their mother tongue, they also acquire certain thinking habits. One of Whorf's biggest mistakes was his defense that native language prevented people from thinking certain thoughts and restricted their minds. According to Whorf, if a concept does not have any word equivalent in the language, people could not understand this concept. Deutscher raised an important question which is; How is it possible to learn new things if language determines what concepts people can understand?

Languages do not prohibit thinking about anything. According to the famous linguist Roman Jakobson⁶, languages differ in what they must communicate. This means that languages force thinking through habits, so different languages affect minds differently. Deutscher explains the issue providing different examples, in English language for instance, when someone is describing or talking about another person it might be difficult to define the gender of the person that has been talked about unless they use referential pronouns 'He/She'.

³ The article was published in the New York Times, Sunday Magazine.

⁴ Guy Deutscher is an Israeli linguist and author. He is honorary research fellow at the School of Languages, Linguistics and Cultures at the University of Manchester.

⁵ Benjamin Lee Whorf was an American linguist and fire prevention engineer.

⁶ Roman Jakobson was an American linguist and literary theorist.

However, this not the case with German or French languages where the speaker has to specify gender when speaking due to some grammatical rules.

Deutscher describes an experiment conducted by psychologists in 1990 with German and Spanish speakers. Both languages have genders of inanimate objects. For example, apple is masculine in German, but feminine in Spanish. In this experiment, people are also asked to rate and identify certain objects. As a result, people who speak both languages also comment on what gender the object shown is in their language, taking into account that gender. As can be seen, these gendered languages significantly affect human memory. Obviously, this does not mean that these people do not realize that these objects are inanimate and sexless. However, to get more comprehensive information about the impact of gendered languages on human life, people need to have more information about the brain as Deutscher argued.

It is possible to look at other examples to see how language can affects thought. One of these examples is directions. People usually prefer to use their own body coordinates, like right and left instead of north, south, east, west etc. Because it's easier and more natural to say in this way. But in North Queensland, an Australian Aboriginal language called Guugu Yimithirr differs at this point. People who speak this language, like people who speak the Kuuk Thaayorre language mentioned by Lena Boroditsky, do not use the words egocentric instead of words like right and left. These people use cardinal directions, like east and west. For people who speak geographical languages, it is natural to express aspects as east-west. At the same time, the language they speak gives them an extraordinary sense of direction that most other people don't have. Because the language they speak obliges them to learn geographical coordinates and develop their memory accordingly. This habit of awareness of geographical direction begins in childhood. For the people who have gained this awareness from a very young age, speaking this language becomes effortless after a while. They can talk about directions without thinking or hesitating.

For many years, people have argued that language restricts their thoughts as Deutscher maintained. When these claims proved unfounded, it was accepted as evidence that people basically thought the same thing. But according to Deutscher, simplifying people's abstract thoughts and trivializing them is a mistake to expect everyone to think the same things. Especially since childhood, the impact of native languages on life and thoughts is much greater than measured by experiments.

As a result, it is a fact that language affects human thoughts. Language shapes human thoughts, even if people don't realize it and this effect of language on thoughts should not be underestimated. Although this effect is certain, it is clear that scientific research on this issue should continue and more data should be collected. If more information is obtained about the influence of language on thoughts, people may be more conscious about it.

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