### Is it true that the language I speak shapes my thoughts?

People have been asking this question for hundreds of years. Linguists have been paying special attention to it since the 1940s, when a linguist named Benjamin Lee Whorf studied Hopi, a Native American language spoken in northeastern Arizona. Based on his studies, Whorf claimed that speakers of Hopi and speakers of English see the world differently because of differences in their language.

What we have learned is that the answer to this question is complicated. To some extent, it's a chickenand-egg question: Are you unable to think about things you don't have words for, or do you lack words for them because you don't think about them? Part of the problem is that there is more involved than just language and thought; there is also culture. Your culture — the traditions, lifestyle, habits, and so on that you pick up from the people you live and interact with — shapes the way you think, and also shapes the way you talk.

There's a language called Guugu Yimithirr (spoken in North Queensland, Australia) that doesn't have words like left and right or front and back. Its speakers always describe locations and directions using the Guugu Yimithirr words for north, south, east, and west. So, they would never say that a boy is standing in front of a house; instead, they'd say he is standing (for example) east of the house. They would also, no doubt, think of the boy as standing east of the house, while a speaker of English would think of him as standing in front of the house. Has our language affected our way of thinking? Or has a difference in cultural habits affected both our thoughts and our language? Most likely, the culture, the thought habits, and the language have all grown up together.

The problem isn't restricted to individual words, either. In English, the form of the verb in a sentence tells whether it describes a past or present event (Mary walks vs. Mary walked). Hopi doesn't require that; instead, the forms of its verbs tell how the speaker came to know the information — so you would use different forms for first-hand knowledge

(like I'm hungry) and generally known information (like the sky is blue). Of course, English speakers may choose to include such information (as in, I hear Mary passed the test), but it's not required. Whorf believed that because of this difference, Hopi speakers and English speakers think about events differently, with Hopi speakers focusing more on the source of the information and English speakers focusing more on the time of the event.

Objects are treated differently by the syntax of different languages as well. In English, some nouns (like bean) are 'countable' and can be made plural (beans), while others are 'mass' and can't be made plural (you can have two cups of rice but not two rices). Other languages, like Japanese, don't make this distinction; instead, classifiers like cup of are used for all nouns. Researchers are studying whether this property of the language makes English speakers more aware of the distinction between substances and individual objects.

Here's one more example. Whorf said that because English treats time as being broken up into chunks that can be counted - three days, four minutes, half an hour - English speakers tend to treat time as a group of objects - seconds, minutes, hours - instead of as a smooth unbroken stream. This, he said, makes us think that time is 'stuff' that can be saved, wasted, or lost. The Hopi, he said, don't talk about time in those terms. and so they think about it differently; for them it is a continuous cycle. But this doesn't necessarily mean that our language has forced a certain view of time on us: it could also be that our view of time is reflected in our language, or that the way we deal with time in our culture is reflected in both our language and our thoughts. It seems likely that language, thought, and culture form three strands of a braid, with each one affecting the others.

#### But people think in language, right?

Much of the time, yes. But not always. You can easily conjure up mental images and sensations that would be hard to describe in words. You can think about the sound of a symphony, the shape of a pear, or the smell of garlic bread. None of these thoughts require language.

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# So it's possible to think about something even if I don't have a word for it?

Yes. Take colors, for example. There are an infinite number of different colors, and they don't all have their own names. If you have a can of red paint and slowly add blue to it, drop by drop, it will very slowly change to a reddish purple, then purple, then bluish purple. Each drop will change the color very slightly, but there is no one moment when it will stop being red and become purple. The color spectrum is continuous. Our language, however, isn't continuous. Our language makes us break the color spectrum up into 'red', 'purple', and so on.

The Dani of New Guinea have only two basic color terms in their language — one for 'dark' colors (including blue and green) and one for 'light' colors (including yellow and red). Their language breaks up the color spectrum differently from ours. But that doesn't mean they can't see the difference between yellow and red; studies have shown that they can see different colors just as English speakers can.

In Russian, there are two different words for light blue and dark blue. Does this mean that Russian speakers think of these as 'different' colors, while having one word (blue) causes English speakers to think of them as the same? Maybe. Do you think of red and pink as different colors? If so, you may be under the influence of your language; after all, pink is really just light red.

So our language doesn't force us to see only what it gives us words for, but it can affect how we put things into groups. One of the jobs of a child learning language is to figure out which things are called by the same word. After learning that the family's St. Bernard is a dog, the child may see a cow and say dog, thinking that the two things count as the same. Or the child may not realize that the neighbor's chihuahua also counts as a dog. The child has to learn what range of objects is covered by the word dog. We learn to group things that are similar and give them the same label, but what counts as being similar enough to fall under a single label may vary from language to language.

In other words, the influence of language isn't so much on what we can think about, or even what we do think about, but rather on how we break up reality into categories and label them. And In this, our language and our thoughts are probably both greatly influenced by our culture.

## But what about all those Eskimo words for snow?

You may have heard it said that Eskimos have dozens (or even hundreds!) of words for snow. People often use this claim to show that the way we view the world and the way we talk about it are closely related. But it's simply not true that Eskimos have an extraordinary number of words for snow. First of all, there isn't just one Eskimo language; the people we refer to as 'Eskimos' speak a variety of languages in : the Inuit and Yupik language families. And even if we pick a single dialect of a single language, we won't find much evidence that it has more words for snow than English does. For one thing, there's the question of what counts as a word: In English, we can combine words to get compound forms like snowball and snowflake, and we can add what are called 'inflectional' endings to get snowed and snowing. The Eskimo languages have far more word-forming processes than English does, so a single 'root' word (like snow) could be the basis for hundreds of related words. It hardly seems fair to count each one of these separately. If you only count the roots, you'll find that these languages aren't that different from English. After all, English has lots of words for snow; we've got snow, sleet, slush, frost, blizzard, avalanche, drift, powder, and flurry - and if you're an avid skier, you probably know even more.

### So learning a different language won't change the way I think?

Not really — but if the new language is very different from your own, it may give you some insight into another culture and another way of life.

#### For further information

Numberg, Geoffrey. 1996. "Snowblind." Natural Language and Linguistic Theory 14: p. 205-213.

Pullum, Geoffrey, 1991. The Great Eskimo Vocabulary Hoax and Other Irreverent Essays on the Study of Language. Chicago: University of Chicago Press.