

How language can affect the way we think

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Keith Chen (TED Talk: Could your language affect your ability to save money?) might be an economist, but he wants to talk about language. For instance, he points out, in Chinese, saying “this is my uncle” is not as straightforward as you might think. In Chinese, you have no choice but to encode more information about said uncle. The language requires that you denote the side the uncle is on, whether he’s related by marriage or birth and, if it’s your father’s brother, whether he’s older or younger.

“All of this information is obligatory. Chinese doesn’t let me ignore it,” says Chen. “In fact, if I want to speak correctly, Chinese forces me to constantly

think about it.”

This got Chen wondering: Is there a connection between language and how we think and behave? In particular, he wanted to know: does our language affect our economic decisions? So he designed a study to look at how language might affect individual’s ability to save for the future. According to his results, it does — big time.

While “futured languages,” like English, distinguish between the past, present and future, “futureless languages” like Chinese use the same phrasing to describe the events of yesterday, today and tomorrow. Using vast inventories of data and meticulous analysis, Chen found that huge economic differences accompany this linguistic discrepancy. Futureless language speakers are 30 percent more likely to report having saved in any given year than futures language speakers. (This amounts to 25 percent more savings by retirement, if income is held constant.) Chen’s explanation: When we speak about the future as more distinct from the present, it feels more distant — and we’re less motivated to save money now in favor of monetary comfort years down the line.

But that’s only the beginning. There’s a wide field of research on the link between language and both psychology and behavior. Here, a few fascinating examples:

1. Navigation and Pormpuraawans

In Pormpuraaw, an Australian Aboriginal community, you wouldn’t refer to an object as on your “left” or “right,” but rather as “northeast” or “southwest,” writes Stanford psychology professor Lera Boroditsky (an expert in linguistic-cultural connections) in the *Wall Street Journal*. About a third of the world’s languages discuss space in these kinds of absolute

terms rather than the relative ones we use in English, according to

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Boroditsky. “As a result of this constant linguistic training,” she writes, “speakers of such languages are remarkably good at staying oriented and keeping track of where they are, even in unfamiliar landscapes.” On a research trip to Australia, Boroditsky and her colleague found that Pormpuraawans, who speak Kuuk Thaayorre, not only knew instinctively in which direction they were facing, but also always arranged pictures in a temporal progression from east to west.

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2. Blame and English Speakers

In the same article, Boroditsky notes that in English, we’ll often say that someone broke a vase even if it was an accident, but Spanish and Japanese speakers tend to say that the vase broke itself. Boroditsky describes a study by her student Caitlin Fausey in which English speakers were much more likely to remember who accidentally popped balloons, broke eggs, or spilled drinks in a video than Spanish or Japanese speakers. (Guilt alert!) Not only that, Boroditsky argues, but there’s a correlation between a focus on agents in English and our criminal-justice bent toward punishing transgressors rather than restituting victims.

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3. Color among Zuñi and Russian Speakers

Our ability to distinguish between colors follows the terms in which we describe them, as Chen notes in the academic paper in which he presents his research (PDF). A 1954 study found that Zuñi speakers, who don’t differentiate between orange and yellow, have trouble telling them apart. Russian speakers, on the other hand, have separate words for light blue (goluboy) and dark blue (siniy). According to a 2007 study, they’re better than English speakers at picking out blues close to the goluboy/siniy threshold.

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4. Gender in Finnish and Hebrew

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In Hebrew, gender markers are all over the place, whereas Finnish doesn't mark gender at all, Boroditsky writes in *Scientific American* (PDF). A study done in the 1980s found that, yup, thought follows suit: kids who spoke Hebrew knew their own genders a year earlier than those who grew up speaking Finnish. (Speakers of English, in which gender referents fall in the middle, were in between on that timeline, too.)

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