Summary: Language and thought

Last week, we considered how the loss of language might influence our thought. This week, we ask a slightly more general version of this question: Does language influence how we think?

The **Sapir-Whorf** hypothesis posits that there is a relationship between language and thought. In its strongest form, the hypothesis holds that language *determines* thought – that without language, we cannot have concepts. A slightly weaker version of the hypothesis, known as the **linguistic relativity hypothesis**, is that the language we speak fundamentally *shapes* how we think. To the extent that language carves up our world into categories and concepts, language may affect which aspects of the world are most pronounced to us, and this may have strong influences on our cognition.

Evidence in favor of this weaker hypothesis comes from, for instance, studies on **grammatical gender**. Many languages assign gender to inanimate objects, and the particular gender for an object may differ across languages. Research shows that if an object is masculine in someone's native language, they will tend to use stereotypically masculine adjectives to describe the object, even when describing it in English (and the same is true for feminine objects).

Other evidence comes from studies involving color perception. It is easier for people to identify that two colors differ from each other if they cross a category boundary – this is because of the **categorical perception** of color. Similar effects have been found in studies of attention, where a two-colored object is shown to be more salient ("attention grabbing") if the viewer's language uses different words for those two colors.

Neither of these studies suggests that language is *necessary* for concepts. One suggestion that language may determine thought comes from number cognition. Nicaraguan homesigners, for instance, live in a culture that values precise numerical skill but do not have access to conventionalized linguistic representations (signed or spoken) for these numbers. When asked to describe quantities larger than four, these homesigners are able to approximate the quantity, but they cannot provide entirely accurate responses, even with unlimited time. This is in contrast to individuals with formal (signed or spoken) language, who have rich representations of numbers and do well on these tasks given unlimited time.

Taken together, these kinds of data indicate that language has an influence on thought, though the exact extent to which it determines thought remains a matter of investigation.