The Sapir-Whorf Hypothesis

"He gave man speech, and speech created thought,
Which is the measure of the universe."
---Shelley, Prometheus Unbound

In linguistics, the Sapir-Whorf hypothesis (SWH) states that there is a systematic relationship between the grammatical categories of the language a person speaks and how that person both understands the world and behaves in it. Although it has come to be known as the Sapir-Whorf hypothesis, it rather was an axiom underlying the work of linguist and anthropologist Edward Sapir and his colleague and student Benjamin Whorf.

Put simply, the hypothesis argues that the nature of a particular language influences the habitual thought of its speakers. Different patterns of language yield different patterns of thought. This idea challenges the possibility of representing the world perfectly with language, because it acknowledges that the mechanisms of any language affect its users. The hypothesis emerged in many formulations, some weak and some strong.

The Sapir-Whorf hypothesis as we know it today can be broken down into two basic principles: linguistic determinism and linguistic relativity.

Linguistic Determinism: the idea that the language we use to some extent determines the way in which we view and think about the world around us.

Linguistic Relativity states that distinctions encoded in one language are unique to that language alone, and that "there is no limit to the structural diversity of languages." If one imagines the color spectrum, it is a continuum, each color gradually blending into the next; there are no sharp boundaries. But we impose boundaries; we talk of red, orange, yellow, green, blue, indigo, and violet. It takes little thought to realize that these discriminations are arbitrary—and indeed in other languages the boundaries are different. In neither Italian nor Russian is there a word that corresponds to the English meaning of "blue," and likewise in Spanish there are two words (esquina and rincón) meaning an inside and an outside corner, which necessitate the use of more than one word in English to convey the same concept. These examples show that the language we use, whichever it happens to be, divides not only the color spectrum, but indeed our whole reality, which is a "kaleidoscopic flux of impressions," into completely arbitrary compartments.

"Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication and reflection. The fact of the matter is that the "real world" is to a large extent unconsciously built up on the language habits of the group." —Edward Sapir, The Status of Linguistics as a Science (1929)
Eskimo Words for Snow

It is a popular urban legend that the Inuit or Eskimo have an unusually high number of words for snow: dozens, hundreds, or thousands. The number of words depends on the definitions of *Eskimo* (there are a number of languages) and *snow*, and on the method of counting numbers of words in languages that have quite different grammatical structures from English.

Origins and Significance of the Myth

The first reference to Eskimo having multiple words for snow is in the introduction to *The Handbook of North American Indians* (1911) by linguist and anthropologist Franz Boas. He mentions that Eskimos have four words: *aput* ("snow on the ground"), *gana* ("falling snow"), *piqsirpoq* ("drifting snow"), and *qimuqsuq* ("snowdrift"), where English has only one ("snow"). English has more than one snow-related word, but Boas’ intent was to connect differences in culture with differences in language.

Edward Sapir and Benjamin Whorf’s hypothesis of linguistic relativism holds that the language we speak both affects and reflects our view of the world. In a popular 1940 article on the subject, Whorf referred to Eskimo languages having seven distinct words for snow. Later writers inflated the figure: by 1978, the number quoted had reached 50, and on February 9, 1984 an editorial in The New York Times gave the number as one hundred.

The idea that Eskimos had hundreds of words for snow has given rise to the idea that Eskimos viewed snow very differently than people of other cultures. For example, when it snows, others see snow, but Eskimos could see any manifestation of their great and varied vocabulary. Vulgarized versions of Whorf’s views hold not only that Eskimo speakers can choose among several snow words, but that they do not categorize all seven (or however many) as "snow": to them, each word is supposedly a separate concept. Thus language is thought to impose a particular view of the world — not just for Eskimo languages, but for all groups. Whorf, a well-informed and respectful student of Native American cultures, held more sophisticated views than this caricature would suggest.

The Truth of the Situation

There is no one Eskimo language. A number of cultures are referred to as Eskimo, and a number of different languages are termed Eskimo-Aleut languages.

Eskimo languages have more than one word to describe snow. For example, Yupik has been estimated to have around 24 - but English has at least 40, including "berg", "frost", "glacier", "hail", "ice", "slush", "flurry", and "sleet".

It is reasonable to suppose that Eskimo languages would have several extra words to describe snow, which is specifically the point of Boas’s theory. This is because they deal with snow more than other cultures, just as artists have more words to describe the
various details of their profession - what a non-artist calls "paint", the artist identifies as "oil paint", "acrylic paint", or "watercolor". This does not mean that these two individuals see two different things, nor does it mean that the artist would be confused by the idea that oil paint and acrylic paint are related.

In fact, the number of Eskimo words for snow is limitless, because Eskimo languages (like many native North American languages) are polysynthetic. Polysynthetic languages allow noun-incorporation, resulting in a single word that is the equivalent of a phrase in other languages (Spencer 1991), having a system of derivational suffixes for word formation to which speakers can recursively add snow-referring roots. As in English, there is a handful of these snow-referring roots, such as for "snowflake", "blizzard", "drift". What an English speaker would describe as "frosty sparkling snow" a speaker of an Eskimo language such as Inuinnaqtun would call "patuqun", and express "is covered in frosty sparkling snow" as "patuqtamšun". The concept is the same in both languages. This is true of things other than snow: "qinmiq" means "dog", "qinmiarjuk" "young dog", and "qinmiqtuqtuq" "goes by dog team".

Conclusion

There are two principal fallacies in this myth. The first is that Eskimo languages have more words for snow than English does, when they may have a few more or a few less, depending on which Eskimo language. As in English, these words are related to each other: for example, blizzards and flurries are two different types of snow, but they are both recognized as 'snow' in the general sense. Speakers of Eskimo languages categorize different types of snow in a similar manner to English speakers.

The second fallacy comes from a misconception of what are to be considered "words". As in other polysynthetic languages, the use of derivational suffixes and noun-incorporation result in terms or language codes that may include various descriptive nuances, whether describing snow or any other concept. Because Eskimo is polysynthetic, it describes concepts in compound terms or 'words' of unlimited length.
Another Example of the Sapir-Whorf Hypothesis (Possibly a Better One)

Particularly interesting evidence has been found from interviews with bilingual Japanese women living in America. These women were married to Americans and only spoke Japanese when they met each other—they used English the rest of the time. According to the Sapir-Whorf hypothesis, the way these women thought should vary according to which language they were using, and an experiment was conducted to see whether or not this was the case.

The experiment involved a bilingual Japanese interviewer who visited each woman twice. In the first interview, he chatted with them only in Japanese. In the second interview, he asked them exactly the same questions, but only in English. The results are surprising; rather than giving the same answers but in different languages, as one might expect, the answers that were given seemed to depend on the language spoken. Here are two examples where the same woman seemed to change her views completely.

'When my wishes conflict with my family's...   
... it is a time of great unhappiness.' (Japanese)

... I do what I want.' (English)

'Real friends should...  
... help each other.' (Japanese)

... be very frank.' (English)

Proponents of the Sapir-Whorf hypothesis argue that the bilingual women 'lived in difference language worlds' when they spoke English and Japanese, and this accounted for the difference in answers, attitudes and thoughts.