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Introduction to Linguistics Language, Thought and Culture.

The **Sapir-Whorf hypothesis** can be stated in this way.

1. Structural differences between language systems will, in general, be paralleled by **nonlinguistic cognitive differences**, of an unspecified sort, in the native speakers of the two languages.
2. The structure of anyone's native language **strongly influences or fully determines the world-view** he or she will acquire while learning the language.

The hypothesis has two parts:

1. Linguistic determinism – language determines thought
2. Linguistic relativity – difference in language equals difference in thought

Extreme version – linguistic categories determine world-view and perception
Moderate version – linguistic categories influence world-view and perception

Language of thought

Pinker gives a range of evidence **against** the view that language is what we use for thinking. It can be summarized as follows.

1. Supposed limitations on expression in various languages are based on **faulty linguistic understanding**.
 - Hopi does have words for time, etc.
 - Translation between languages is possible (even if difficult to do elegantly).
2. Thought is possible **without language**.
 - Adults who have grown up without language.
 - Babies before they learn language.
 - Primates and other animals that never learn language.
 - Adults who reason and create in visual or other modes.
3. Language is an **inadequate medium** for the direct encoding of thought.
 - We often can't think of the right word to express ourselves.
 - Language contains ambiguity, homophony, etc.
 - Manipulation of visual images is done directly.

Instead, thought is encoded in something distinct from normal language, which he calls **mentalese**

Language as a reflection of culture

Eskimo words for "snow."

Franz Boas: that Eskimos have **four different words for snow**, where English has just one.

aput snow on the ground, **qana** falling snow, **piqsirpoq** drifting snow, **qimuqsuq** snowdrift

Benjamin Lee Whorf -- **lack of a common term** in Eskimo as evidence for a **difference in attitude or perception**.

English: avalanche, blizzard, dusting, flurry, frost, hail, hardpack, powder, sleet, slush

The way the two languages divide up the world: **Central Alaskan Yupik**, one of the five Eskimo languages: **qanuk** = "falling snow, snowflake" **aniu** = "snow on the ground"

Ancient Greek: neíphein "to snow", **niphás** "snowflake", **khíôn** "snow (on the ground/falling)"

English: water rain puddle dew wave foam river stream lake ocean

Categorizing the world

The idea that the vocabulary of a language traps its speakers into thinking only in those terms is easily disproved: e.g. animal terms:

species			
immature		mature	
male	female	male	female

Humans: full chart

Vocabulary is limited for animals with which English speakers have minimal contact, and more **elaborate for animals with a greater cultural importance** -- including humans.

Compare: **horse, sheep, elephant, cow**

Given any pair of languages, it's always possible to find a **semantic distinction that's made in one but not the other: Russian two kinds of blue**, darker and lighter; but the **same word for hand and arm**.

Hopi grammar

A study of the Hopi Indians by Franz Boas in 1911:

Hopi **language** has no concept of time as an objective entity.

Sapir's view: this must affect the way in which they conceptualise the world.

Whorf: prove this by finding a concrete example of how the Hopi's lives were affected by their different linguistic concept of time. He claimed that the way the Hopi rely on preparation, announcing events well in advance, for example, showed a concept of time continuing along instead of being divided up as Western societies do, which matches the linguistic differences.

This shows language determining thought, in other words Strong (or Extreme) version of Whorfianism.

This extreme Whorfianism has been heavily criticised, and now has few advocates.

- The most obvious problem is the idea of causality
 - how can one ascertain whether (if at all) language has affected thought, or if the thought has affected the language?
 - A national 'character' (if such a thing truly exists) would be as much an influence on us as a national language.

- In the case of the Hopi and their excessive preparation – it is possible, and in fact, more likely, that they have just learnt over time that preparation makes things easier, especially in a harsh environment.

The second most obvious criticism of Whorfianism is Benjamin Whorf's methods.

- Brown (1958) and Lenneberg (1953) pointed out that Whorf never met an actual Indian, so his assessments of their character must be somewhat vague,
- and also that his translations of Hopi sentences were done to seem as different as possible, to emphasise the 'different system of thinking'.

One of the most fervent critics of Whorfianism (in both extreme and moderate forms) is Steven Pinker

- Pinker also debunks Whorf's claims about time in the Hopi language.
 - He points out that the anthropologist Malotki (1983) has found that the Hopi do have a concept of time very similar to ours
 - in fact have units of time, and a sophisticated calendar.
 - In addition, Whorf's arguments on Hopi character are based on Hopi language, making his argument circular, and therefore useless.

Color perception

Languages differ in the way they split up the **range of possible colors** by means of color terms. **Possible effect of color vocab on perception - English and Tarahumara** (Kay & Kempton 1984)

English: **green** and **blue**; Tarahumara: single term for both colors, **siyóname**.

Experiment I: Subjects were shown **three close colors in the blue-green range**, and asked to choose the one that's most different from the other two. For example:

English speakers biased to **group colors according to the words** "green" and "blue," Tarahumara speakers were not: Even when the middle color B was objectively closer to A than to C, an English speaker often would identify BC as the closest pairing if they both could be described by the same word. This happened **only when the differences were subtle**.

Explanation: faced with **difficult discriminatory task**, people unconsciously look for another (easier) means of deciding, in this case by using the **name strategy**. Can this be prevented, to test true perception?

Experiment II: English speakers were **shown only two of three adjacent colors at once**, and asked to **compare the degree** to which A is greener than B, and the degree to which C is bluer than B. There was **no significant effect of vocabulary**: same results whether or not B fell close to the boundary between *green* and *blue*.

Explanation: the name strategy is **pre-empted** since the instructions incorporate the color terms. So - **language you speak can have an effect on the way you answer a question or perform a task, but does not prevent you from seeing things as they are**

Support for linguistic relativity

In one domain, language determines perception: phonetics. Learning your native language takes away the ability to perceive phonemic contrasts that are present in other languages.

In the domain of cultural perceptions and world-view, it is also quite possible that language may somewhat influence thought. However, such influence is extremely difficult to test scientifically.

- In any case, the assumption of this influence is behind the efforts of the feminist movement to change the vocabulary of job-labels and other gender-specific into gender-neutral language
 - The effort has been largely successful in the realm on nouns
chairman → chairperson freshman → first year student
 - And largely unsuccessful in the realm of pronouns
ze/zer?? - but English already has a gender-neutral pronoun! (they)

Anna Franklin and collaborators (Surrey and elsewhere)

Although colour is a continuous spectrum, we perceive colour categorically.

Two (pre-theoretically independent) ways to divide up the spectrum:

- We categorise colour using colour names
 - the way in which a language segments the colour space varies across languages.
- We also perceptually categorise colour
 - two colours are harder to discriminate if they belong to the same category than if they belong to different categories, even when chromatic separations are equated.

The main aim of their current project is to understand the origin and nature of this colour categorisation.

- A current experiment is using ERP to explore the time course of infant colour categorisation.
- Another set of studies is exploring hemispheric asymmetries in colour categorisation.
 - Colour categorisation is predominantly left hemisphere based (Gilbert, Regier, Ivry & Kay, 2006) and we are currently investigating the development of this hemispheric asymmetry, testing infants and toddlers.
- A final set of studies considers the impact of language on the development of colour categorisation
 - as languages differ in how they segment the colour space, how does this affect the development of perceptual categories?

Lost in translation?

Another criticism of extreme Whorfianism is the concept of translatability

- if language affects thought, then presumably some concepts would only be understandable in the language in which they were first ‘thought’.
 - There is evidence that this applies in poetry – for a poet, the meaning is only half the poem. The remaining part is in how the poet sounds to the listener, or looks to the reader. What is ‘lost in translation’ here is less of a linguistic debate, and more a musical or artistic one.
- Code Talker Paradox – and what it tells us about language in general
 - **Linguistics – the solution to the Code Talker Paradox**