What is the Sapir-Whorf Hypothesis?
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Whorf Revisited
- 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.
- NOT cause and effect, but correlation
- This hypothesis is tested in these experiments

Whorf Revisited con’t
- The structure of anyone’s native language strongly influences or fully determines the world view he will acquire as he learns the language.
- Can NOT be tested

Disclaimer
- Restrictions on testing the Whorf hypothesis occur, because they have been limited to color, where there are other areas of thought, like religion, that may impose perceptual limitations
- Remember…this is 1984
Experiment 1 - Subjects

- English: lexical distinction between “blue” and “green”
- Tarahumara (northern Mexico): no lexical distinction, “grue”

Stimulus

- Given triads of color chips, had to pick which pair were “most different” from each other.
- Some cross the green-blue color boundary
- Experiment similar to speech perception experiments we did

Green/Blue Boundary

- The boundary is the point where equal wavelengths of blue and green are found

Judged Distance

- This figure shows the eight color chips used
- The numbers are the distances between hues.
Predictions

- "colors near the green-blue boundary will be subjectively pushed apart by English speakers precisely because English has the words green and blue, while Tarahumara speakers, lacking this lexical distinction, will show no comparable distortion"

- Speech perception comparison - when we crossed the D-T boundary we had the same effect

Results

- Full results
- Notice that when the green/blue boundary is crossed, English speakers see it is a greater distance, even though it is not
- "The presence of the blue-green lexical category boundary apparas to cause speakers of English to exaggerate the subjective distances of colors close to this boundary." - Whorfian effect

A Closer Look

- Left graph is consistent with predictions
- Is the right graph?

A Closer Look Con't

- Left graph - Why is there such a great difference for the Tarahumara?
- Right graph - consistent, used as control
Experiment 2

- What happens when we eliminate the ability to name the colors?
- Tested English subjects

- Given the same test, but only able to see two of the color chips at once
- “tell me which is bigger; the difference in greenness between the two chips on the left or the difference in blueness between the two chips on the right.”

- Since the same chip is named as both “blue” and “green”, they are unable to use the lexical category distinctions

What We Get

- The English subjects chose the chip set with the most discrimination distance, regardless of green/blue category

What does this mean

- “The Whorfian effect shown by English speaking subjects in experiment 1 disappears.”
Cautious Whorfianism

- “A more cautious Whorfianism seems to be supported by the results reported here... In this view we acknowledge that there are constraints on semantic differences between languages, so we accept not an absolute linguistic relativity, but a modest version.”

- “Languages differ semantically but not without constraints, and second, that linguistic differences may induce nonlinguistic cognitive differences, but not so absolutely that universal cognitive processes cannot be recovered under appropriate contextual conditions.”