

Map for Module 4: Linguistic Relativity

In Module 1 we were introduced to the structural differential and the central problematic of General Semantics: the process of abstracting. In this Module, led by Greg Thompson, we will focus on using cross-cultural comparisons in order to provide real world examples of *how* language affects thought.

The idea that language affects thought has been called the **Linguistic Relativity Hypothesis** or the **Sapir-Whorf hypothesis** - after linguistic anthropologists Edward Sapir and Benjamin Lee Whorf.

Relativity Effects can be seen in terms of:

1. Effects of speaking a particular language on how one perceives the world.
2. Effects of speaking a particular language on how one interacts with the world.
3. Effects of speaking human language in the first place (sign language counts as a human language!), as opposed to not speaking a human language at all.

In this module, we will be focusing on the first two types of effects, but it should be noted that the third effect of language is exactly what Korzybski was talking about in his concept of time binding. Language is an instrument of time-binding. And written language is particularly powerful in this regard. While there are many examples of non-literate cultures passing down traditions through oral language, written language even further expands our ability to transmit knowledge across great distances of time and space (and indeed it is this very work in which we are presently engaged!).

Description of Module

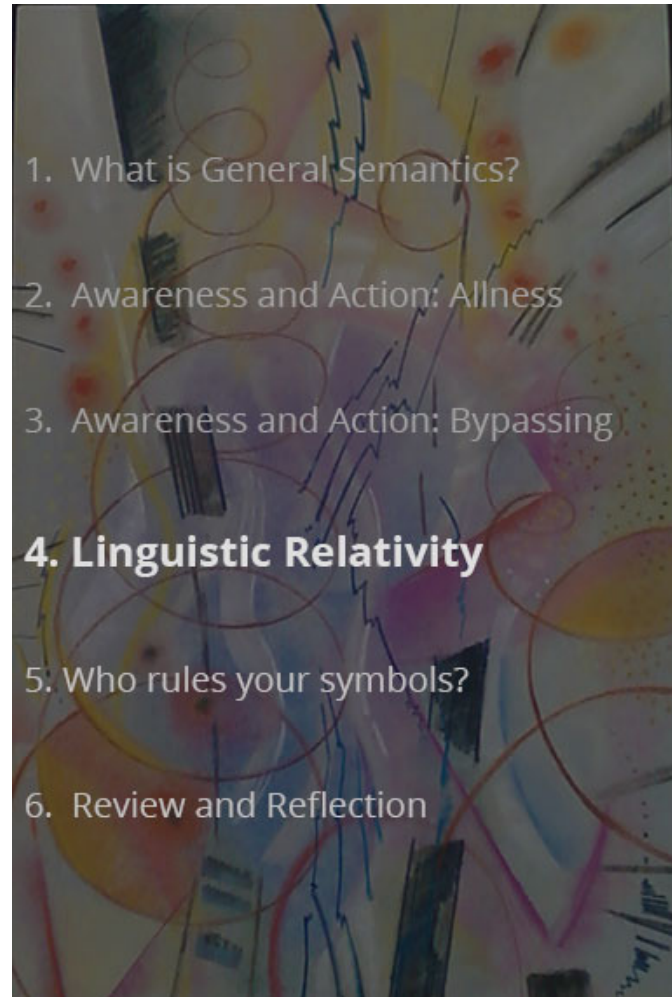
First, we begin with an overview explanation of what we mean by linguistic relativity on the page titled **Language, Thought, and Behavior**.

In What We Do With Language - And What It Does With Us, Bruce Kodish provides an excellent overview of Linguistic Relativity and its relevance to General Semantics. He effectively rebuts some of the specific criticisms of LRH by Noam Chomsky and Steven Pinker.

The module will be focused around a video presentation by University of California San Diego (UCSD) psycholinguist Lera Boroditsky, **How Language Shapes Thought**. In this engaging lecture, Dr. Boroditsky provides an outline of the general argument of the Linguistic Relativity Hypothesis as well as a number of very rich examples of how language could affect how we understand the world around us.

After you've viewed the presentation, you can share your **Reactions to Lera Boroditsky** in a graded discussion.

Next, I explain the **Relativity** in Linguistic Relativity, focusing on examples of cultural relativity, followed by



Implications of Linguistic Relativity.

The module concludes with two graded assignments: 1) a discussion that asks you to share a personal example of how language shaped your thinking; and 2) a short 250-word essay on a controversial cultural practice.

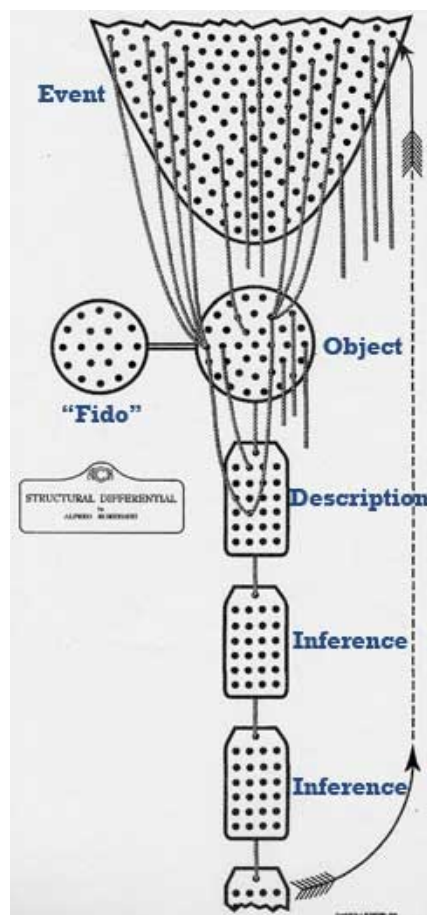
Don't overlook the **Optional Readings** page with links to PDF articles you can download.

Throughout the week, please review and contribute to the [Module 4 General Discussion](#).

I should note that there are serious challenges to doing this kind of cross-linguistic work. First and foremost, we all have very different experiences with language. Some of us are monoglots (like me!), and some of us are bi- or multi-lingual. But there are no two languages that all of us share. This makes it difficult for us to use any two languages for comparison since only a subset of us will know those two languages well enough to understand the examples. This means that we will tend to treat more superficial examples of language effects (e.g. the effects of lexical items in one language vs. another), and will make it difficult to treat more complex examples of language effects (e.g., the effects of grammatical categories).

I am very excited about hearing people's own personal experiences with bi- or multi-lingualism and what kinds of effects you have observed. So please be sure to participate in the discussions so that we will have some meaty first-hand examples of how speaking a language might affect other aspects of our behavior.

Language, Thought, and Behavior



This week we are considering the relationship of language, thought, and behavior. In particular, we consider this using the comparative method. We will look at different languages and how these different languages affect how we think about and behave in the world.

Put slightly differently, this module considers how different maps can map the 'same' territory in a potentially indefinite number of ways.

Here we return again to the structural differential as a way of understanding how language functions to interpret the world for us.

We will be focused on the level that is most relevant to the actual formal features of the language that we use, namely the level of *Description*.

In this module, we will see how the different languages can give us different descriptions of the same reality.

In this unit, we will consider examples taken from a number of different languages that can help us to see how the language we speak can affect how we understand the world around us.

Beyond Eskimos and their 10/100/1000 Words for Snow: The Sapir-Whorf(-Korzybski?) Hypothesis

Did you know that suburban white males have over 100 words for 'lawn'?

The Sapir-Whorf hypothesis, also known as the Linguistic Relativity Hypothesis (LRH), refers to the claim that the language that you speak will affect the way that you understand the world around you. The first to formally forward this hypothesis were Edward Sapir and his student Benjamin Whorf. Although Sapir first formulated the hypothesis, it was Whorf who was most active in researching the claim.

English examples of Linguistic Relativity

I'll begin the discussion with some of the classic examples from Whorf's work as a fire insurance claims adjuster. (Yes, Whorf was a *leisure-scholar* — meaning he had a full time job and studied language in his free time. Note that this is a point that many of his detractors cite as evidence that he wasn't a serious scholar. Based on what you've learned so far, is this a reasonable inference? Perhaps it would be better to actually read his work and then decide?)

In his work as an insurance claims adjuster, Whorf was responsible for looking into the origins of fires (ostensibly so that the insurance company see if there was justification for them to not pay out the claim). In his line of work, it was generally accepted that one need only look into the physical situation in order to understand what "caused" the fire. Yet, in his work, Whorf came to the belief that it was not just the "physical situation" that caused the fire, but that the *meaning* of the situation was critical, and that, more specifically, the linguistic meaning or the label applied to the situation was critical to understanding the cause of the fire. Below are some of his examples.

1. People working around "gasoline drums" will be extremely careful and cautious while people working around "empty gasoline drums" will not. The sense that they are "empty" suggests that they pose no harm. And thus, as Whorf discovered, a worker may with no concern, flick a cigarette stub into one of these "empty gasoline drums." The results are, well, explosive. This, it turns out, is because "empty gasoline drums" in fact contain highly explosive vapors.
2. At another plant, metal containers were insulated on the outside with "spun limestone". Seeing that it was "limestone" (i.e., "stone"), workers made no attempt to protect it from heat or flame. Yet, it turned out that this material reacted with the chemical fumes inside to produce acetone, a highly flammable liquid. Thus, when these "stone" lined containers were exposed to flame, much to everyone's surprise, the "stone" caught fire.
3. A tannery discharged waste water containing animal matter into an outdoor basin partly roofed with wood. A workman working nearby lit a blowtorch with a match and then threw the match into the "pool of water." Anyone want to guess the results?

Each of these examples show how the linguistic meaning of the situation can be seen to have very important, and perhaps even dire, consequences for participants involved. (Whorf is not clear as to whether anyone was hurt in these fires...)

Cross-linguistic examples of Linguistic Relativity

Consider the oft-quoted example of Eskimos and their words for "snow" that Whorf mentions in his paper titled "[Science and Linguistics](#)."

It is interesting that the snow example is actually given as an elaboration of another point that nobody ever seems to talk about, the fact that the Hopi have one word for "insect", "aviator", and "airplane". The point here is that if a Hopi speaker were to be walking through, let's say, an airport and if she were to be looking out the window at an airplane at which point she saw a fly buzzing around a window just as she passed an "aviator" (i.e. a "pilot"), she would say that she just saw three of the "same" thing.



This is much like the non-skiing American for whom powder, slush, and crusty snow are all the "same" thing (I qualified that as "non-skiing American" because skiers have different terms for snow - and more importantly, they engage with those different categories of snow quite differently, often to the point of even having different types of skis for different types of snow).

Whorf's point is that, for the Eskimo, these are not the "same" thing. One substance is good for making igloos ("hard-packed snow"), another is good for walking on ("ice-covered snow"), and another is generally a pain in the rear end ("powder"). But, for the Eskimo each of these different types of snow are, as Whorf says, "different things to contend with." Having a different name for each of them tells an Eskimo what exactly it is that they are contending with.

So the next time someone says that the Eskimo have over 100 words for snow, after you have helped them understand how this is false-to-facts (11 seems a more plausible number), you can then tell them that the Hopi have only one word for "insect", "aviator", and "airplane". That should blow their mind.

Contribute to the [Module 4 General Discussion](#)

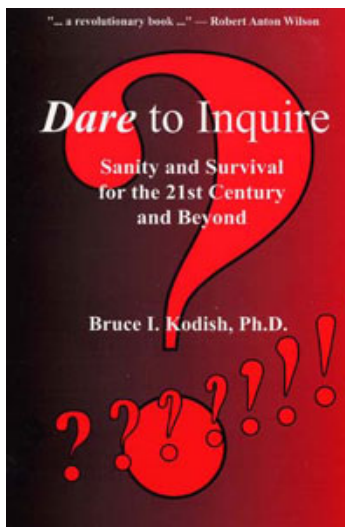
What We Do With Language - What It Does With Us

The article below by Bruce I. Kodish, Ph.D., presents an excellent overview of the Linguistic Relativity Hypothesis (or Sapir-Whorf Hypothesis) and its relevance to General Semantics. He effectively rebuts some of the specific criticisms of LRH by Noam Chomsky and Steven Pinker.

This article was published in *ETC: A Review of General Semantics* Volume 60 Issue 4. It also constitutes Chapter 10 in his 2003 book, *Dare to Inquire* ([available on Amazon](#)).

If you prefer to download the PDF version, click: [What we do with language - what it does with us](#)

Neuro-Linguistic Relativity



A particular view of language relates to the applied, evaluational approach of general semantics. Language is intertwined with behavior, consciousness, etc. It has a neurological base; that is, language doesn't exist entirely separately from nervous systems-persons using the words. By means of spiral feedback mechanisms, we create our language; our language affects us; we create our language; etc., ongoingly. This individual process is embedded in, influences and is influenced by, a particular culture and community of others.

This view, "linguistic relativity," has a history in western culture going back at least several hundred years to the work of Vico and von Humboldt and more recently to linguistic anthropologists Franz Boas, Edward Sapir, and Benjamin Lee Whorf, among others.

For those who espouse linguistic relativity, what we call 'language' and 'culture', 'consciousness' and 'behavior' develop and operate together through individual and group experience. (Since they do not function in complete isolation from each other, although they can be considered separately, I put the terms in single quotes here.) Linguistic anthropologist Michael Agar has coined the term "languaculture" to label the joint phenomenon of language-culture. How do these factors work together?

Without denying cross-cultural similarities among humans, the principle of linguistic relativity implies that, as Whorf scholar Penny Lee wrote:

...although all observers may be confronted by the same physical evidence in the form of experiential data and

although they may be capable of "externally similar acts of observation" ... a person's 'picture of the universe' or 'view of the world' differs as a function of the particular language or languages that person knows. (1)

Korzybski and Keyser independently and earlier formulated similar notions in relation to undefined terms, logical fate, etc. As you may recall, they contended that the culturally inherited structure of an individual's language, *including his or her terminology, grammar, logic, doctrines, etc.*, relates to assumptions, premises, implications about the structure of ourselves and the world.

In *Science and Sanity*, Korzybski hinted at the practical implications of this structure even within a particular, apparently 'unified' languaculture:

We do not realize what tremendous power the structure of an habitual language has. It is not an exaggeration to say that it enslaves us through the mechanism of *s.r* [semantic or evaluational reactions] and that the structure which a language exhibits, and impresses upon us unconsciously, is *automatically projected* upon the world around us. (2)

Various distorted versions of this view have come to be known as the "Sapir-Whorf Hypothesis," an academic abstraction which does not label anything that Sapir or Whorf ever put forward as a hypothesis on their own. (The principle of linguistic relativity which they did put forward can be interpreted in various ways and may lead to many different hypotheses.) Some scholars have pursued their own distorted interpretations and made a strawman rendering of Whorf's views.

As you might imagine, much controversy has been generated by the various versions and responses to them. I consider this controversy important to examine in some detail in *Dare to Inquire*, due to the centrality of linguistic relativity in general semantics. I discuss the general-semantics view in the course of going into various other versions.

Language and Thought

According to psychologist Steven Pinker, both Whorf and Korzybski presented linguistic relativity as a single-valued, absolutistic and uni-directional belief that "language determines thought." (3) This "strong version" (and 'weaker' ones as well) of the supposed Sapir-Whorf hypothesis is "wrong, all wrong" (4) claims Pinker (widely accepted as an expert in linguistics and psychology).

Actually, neither Whorf nor Korzybski posited a 'language' entirely isolated from human behavior-in-a-culture as the sole, one-directional, single valued determinant of some separable entity called 'thought.' According to both men, 'language,' 'thought' (more accurately, neuro-evaluational processes), 'behavior,' and 'culture' do not function separately but rather as elements within a gestalt (a unified whole) where they mutually interact in multi-dimensional and probabilistic ways.

In saying that 'language' does not function separately from 'thought,' I do not mean to imply, as Pinker does, that either formulator claimed that there is no 'thought' without 'language.' Whorf, at the very least, qualified this and Korzybski denied it.

Neither did they deny the possibility of inborn and 'universal' language related processes, more or less impervious to cultural modification. Nevertheless, the thrust of their work suggests that language has important aspects modifiable through learning. Through *neuro-linguistic* (a term originated by Korzybski) processes, our language use helps create modifiable *neuro-evaluational, neuro-linguistic* environments, i.e., cultures, which can change and grow through time-binding. We not only do things with 'language,' 'language' does things with us.

The general-semantics view of linguistic relativity appears unique among other versions of linguistic relativity for several reasons. First is its explicit *neurological emphasis*. Using general-semantics language, we can talk more accurately in terms of neuro-linguistic relativity:

Even a gramophone record undergoes some physical changes before words or noises can be 'stored' and/or

reproduced. Is it so very difficult to understand that the extremely sensitive and highly complex human nervous system also undergoes some electro-colloidal changes before words, evaluations, etc., are stored, produced, or reproduced? (5)

Before his untimely death, Whorf appeared to be struggling toward such an explicit neurological formulation as well. (6)

A second point which distinguishes general semantics from many other views of linguistic relativity is its focus on an individual's *language behavior or use* as it relates to his or her evaluative (roughly 'cognitive') processes. The term "language" as neurocognitive linguist Sydney Lamb has noted, does not necessarily stand for one thing. Using a device suggested by general semanticists, Lamb indexes language(1), language(2), language(3).

..when we look closely we can see that it ["language"] is used for a number of quite distinct collections of phenomena selected from the kaleidoscopic flux, including especially these three: (1) language as a set of sentences (e.g. Chomsky) or utterances (Bloomfield); (2) language as the system that lies behind such productions; (3) language as linguistic processes, as in the title of Winograd's *Language as a Cognitive Process* (1980). (7)

A given general language(1) system such as English, French, German, etc., can have within it distinguishable dialects (regional variations) and registers (professional and group variations, such as the language of physicians, etc.). Individual speakers or writers of a given language(1) will have unique particular variations within the more general system — which may include their vocabulary, logic, metaphors, doctrines, etc. Language(2) includes the neuro-linguistic processes by which we generate language(1). A large part of human evaluative processes relates to language behavior or use, i.e., language(3). We learn how to do things with words in a social context in order to negotiate our lives with others—and with ourselves. Language(3) has become an area of increasing academic interest in recent years, as for example in discussions of "thinking for speaking" and "speech acts." General semantics especially focuses on language(3)—how an individual's evaluative processes relate to their language(1) generated from the neurological processes involved in language production, language(2) .

A third factor that distinguishes general semantics from other forms of linguistic relativity is its specific attention to *practical implications and applications*—even within the boundaries of a particular, apparently 'unified' languaculture. Whorf, who died in his forties, noted but was not able to elaborate much on the more practical implications of linguistic relativity. On the other hand, general semantics focuses on ways in which individuals can become more aware of the effects of their language and its implicatory structure for ill and for good.

"Sticks and stones can break my bones but words can never harm me," goes a saying from my childhood. On the contrary, neuro-linguistic factors, i.e., *words with the associated neuro-evaluative processes in each of us*, can play a harmful, sometimes quite toxic role in our lives—especially if we remain unconscious of their implications.

We have particularly good access to our linguistic behavior, which appears modifiable to some degree. This is not any form of word magic. We're interested in the underlying implications and orientation reflected in the structure of language. These involve our evaluational (semantic) reactions, including so-called verbal 'thinking,' as well as non-verbal 'thinking,' 'feeling,' behaving, etc. By becoming more aware of our language and its implications, we can nudge our orientation to get closer in line with so-called 'facts.'

The Chomskyite Protest

The theory of Noam Chomsky has dominated linguistic studies in the United States for decades. Chomsky has consistently argued for the universal, innate and unlearned structure of human language. Building on Chomsky's work (focusing on language(1), Steven Pinker has proposed that the structure of language, i.e., grammar, etc., comes primarily by means of what he calls a "language instinct" determined by genes.

This chomskyite approach has now begun to show serious wear with little positive results for the claim that "language is an instinct." (This failure has serious implications for the more general program of "sociobiology" or "evolutionary

psychology" as well) Linguist Geoffrey Sampson has done an especially thorough job of analyzing the inadequacies of chomskyite views. Sampson has concluded that:

...there are some universal features in human languages, but what they mainly show is that human beings have to learn their mother tongues from scratch rather than having knowledge of language innate in their minds. Except for the properties that lead to that conclusion, languages are just different (except that they probably do all contain nouns and verbs) ... (8)

It seems that Dante had more or less the right view when he wrote in his *Paradiso*:

Tis nature's work that man should utter words,

But whether thus or thus, 'tis left to you

To do as seems most pleasing. (9)

Nonetheless, the great popularity of the chomskyite program has probably prevented many people from taking Whorf's and Korzybski's work more seriously. To those who believe that most of language structure gets determined genetically, the differences between different linguistic groups can in some sense be considered trivial. If one accepts Pinker's claim that in its most significant aspects "language is not a cultural artifact," (10) then attention to language use cannot be used to affect human perception and behavior in the way general semanticists and others claim it can.

I decided to closely examine Pinker's dismissal of linguistic relativity in his book *The Language Instinct*, to see if there was anything there that would require me to revise my own views. The lack of substance in his arguments surprised me. Pinker's presentation does not seem notable for its accuracy and fairness regarding opposing views. It illustrates how someone nominally functioning as a scientist can block the way of inquiry. As Lamb noted, "Those who doubt that language can influence thinking are unlikely to be vigilant for the effects of language on their own thinking." (11)

Non-Verbal 'Thinking'

Pinker states that "General Semantics lays the blame for human folly on insidious 'semantic damage' to thought perpetrated by the structure of language." (12) Pinker finds this something to scoff at. However, Korzybski did not talk or write in terms of 'blame' or of 'thought' and 'language' so elementalistically.

A more accurate rendering of a general-semantics view of 'language' and 'thought' states that the structure of a language, with its associated neuro semantic (evaluative) reactions —in each of us, at a given time, among other factors— affects our ongoing behavior, perception, evaluating, etc., for good and ill. Pinker may be unable to understand the nuances of this view because, as a good chomskyite, he lacks the linguistic consciousness that would allow him to stop objectifying the abstract terms 'language' and 'thought' as if they represented isolated entities in the world.

Despite his inaccurate description of general semantics, Pinker does correctly conclude that general semanticists find some support for their views in Whorf's work. Unfortunately, Pinker also incorrectly concludes that linguistic relativity must imply that "thought is the same thing as language" (13) and writes at great length to refute this. However, his efforts here have *no relevance whatsoever* to either Korzybski's or Whorf's actual views. Neither claimed that "thought is the same thing as language." In fact they both directly denied this while not eliminating the importance of what Penny Lee calls "linguistic thinking" (Lamb's language(3)).

In Korzybski's case, as I have already emphasized, the term "semantic(s)" in general semantics implies "evaluation" and does not typically refer to "just words" despite the usage of those ill-informed about general semantics. Evaluation refers to happening-meanings, i.e., 'thinking,' 'feeling,' verbal and *non-verbal* organism-as-a-whole transactions within an environment. Indeed, Korzybski stressed the importance of non-verbal formulating within his understanding of neuro-linguistic behavior, noting that silent contemplating and visualization can allow us to take in

and develop fresh information, relatively unbiased by verbal ruts.

Basic Color Terms

Pinker also makes much of the "basic color term" research of Berlin and Kay, and of Rosch, as disproof of Whorfian-Korzybskian views. (14) Even though different languages have differing numbers of color terms, there does seem to exist a rough, cross-cultural sequence of those colors which get labeled first, second, third, etc. In addition, people across different cultures may tend to pick particular focal colors as the best examples or prototypes for a particular category. Although at least some of this work has flaws in both its data collection and interpretation, it does lend support to the notion that some aspects of language may depend upon the biologically based perceptual equipment of humans across cultures. This doesn't, by the way, prove that some gene or genes are directly responsible for specific, observable language behaviors. Trial-and-error empirical learning may still play a role even in the development of color terms, however biologically based. (Note that "based" does not equate with "solely determined by.")

Despite Pinker's and other Chomskyites' attempts to make this an either-or issue, any research which shows the possibility of some cross-cultural, biological basis for some of the terms we use does not actually challenge the notion of linguistic relativity. Neuro-linguistic relativity held non-absolutely has no inherent conflict with some degree of non-absolutist neuro-linguistic universalism, which may have some more or less direct biological basis.

Hopi Concept of 'Time'

Unfortunately Pinker doesn't play fair when it comes to discussing these issues. His representations of linguistic relativity cannot be relied upon for accuracy. For example, he uses selective quotes to 'prove' that Whorf made "outlandish claims" that the Hopi Indians were "oblivious to time" and did not have tenses in their language. (15) Although Whorf's analysis of Hopi language may not be entirely flawless, a comparison of Pinker's claims about it and what Whorf actually wrote results in very different pictures.

It seems clear from a full, non-selective reading of Whorf's work that he recognized the importance of how the Hopi language clearly deals with durations and times. Whorf did not deny that the Hopi have used dating or calendars, counted the number of days or duration of events, etc. What he did claim was that the Hopi did not conceptualize "space or time as such" in the reified manner that we do in English and other Indo-European languages. This has been corroborated by others who have lived within and studied Hopi language and culture, such as anthropologist Edward Hall.

Eskimo Snow

In his crusade to show how linguistic relativity is wrong, Pinker doesn't seem to mind descending to personal attack either. A common "urban legend" claims that Eskimo language has hundreds of different words for snow. By connecting Whorf's work to this popular claim, Pinker suggests that Whorf was party to a hoax. According to Pinker, from a report of four Eskimo words for snow made by Boas in 1911 "...Whorf embellished the count to seven and implied that there were more. His article was widely reprinted, then cited in textbooks and popular books on language, which led to successively inflated estimates in other textbooks, articles and newspaper columns of Amazing Facts." (16)

Whorf actually wrote that English had one word for snow and Eskimo had three. Whorf used data that he had available at the time of this writing (1940) to emphasize that: "Languages classify items of experience differently. The class corresponding to one word and one thought in language A may be regarded by language B as two or more classes corresponding to two or more words and thoughts." (17) To say that Whorf embellished anything here distorts what he said. Whorf does not have responsibility in any way, as Pinker tries to suggest, for other people's exaggerations and misinterpretations. This constitutes pure name-calling and has no basis in fact. (18)

Experimental Evidence for Linguistic Relativity

Studies to deliberately test one or another interpretation of linguistic relativity have gone on for at least a half-century. This research remains an area of great contention and, despite the claims of chomskyites to some sort of victory, their efforts to declare linguistic relativity "bunk" don't stand up to analysis. Pinker and others have attempted to downplay the significance of tests that corroborate the notion that words can in some sense have an effect on memory or categorization. However, the evidence hardly seems "weak." The results of these tests have sometimes surprised researchers who didn't necessarily favor linguistic relativity.

In one set of classic studies, subjects were shown colored chips. The colors varied in their *codability*, how easily an individual could apply a color label or name from his or her language to a chip. The chips were then removed, mixed up and shown again to the experimental subjects, who were asked to pick out the chips they had been shown before. The more easily labeled, more codable chips, appeared *more available*. In other words, the subjects had a better memory for, and could pick out, the more easily labeled chips, even though they could also remember colored chips without names. (19)

Pinker briefly mentioned and pooh-poohed the significance of another study about which the experimenters concluded that the habitual categories of speakers' languages could indeed influence their color-categorizing behavior. (20) One of the researchers, Willett Kempton, later wrote:

A simple experiment, clear data, and seeing the Whorfian effect with our own eyes: It was a powerful conversion experience unlike anything I've experienced in my scientific career. Perhaps this all just goes to affirm Seguin's earlier quote, as applying to us as both natives and as theorists: "We have met the natives whose language filters the world—and they are us." (21)

Neuro-Linguistic Revision

Do this simple experiment. Have a friend select a number of newspaper headlines of similar size. Find a distance at which the friend can hold the headlines so that you cannot make out what they say. At this distance, when your friend tells you what an unfamiliar headline reads, the headline will probably 'pop out' at you.

This experiment provides a literal demonstration of *neuro-linguistic revision*. It illustrates how your linguistic maps may have a visible effect on what you 'perceive,' respond to, etc. Indeed, to a great extent we react to what goes on around us as a function of the linguistic maps that we hold. In other words, we often appear to react to our neuro-linguistic reactions.

To the extent that the structure of our language fails to adequately map the non-verbal territory, we may ignore important 'facts' or respond to fictitious entities created by our way of talking. We do well to become aware of and, when necessary, change the structure of our language in order to create more adequate linguistic maps. The languages of science and mathematics not only provide another worldview but also serve as models for the kind of linguistic behavior that can help us improve our evaluative abilities. They provide especially powerful means for helping us to fit our language to the non-verbal world.

This doesn't mean that we can create a language that perfectly matches the world. Quite the reverse: our representations remain that; never exactly the same as what we're representing. Does it follow from this that we waste our time when we try to tidy up language, to make it more structurally in keeping with the structure of the non-verbal world? Surely not!

On the contrary, if our representations have properties not shared by the thing represented, or vice versa, we need to look at that. It indicates a lack of fit or structural similarity between our mode of representation and what we wish to represent. This lack of fit can lead to problems and should be put right to the degree possible. We can study other languages and linguistically expressed viewpoints, including the language of science and mathematics, to expand our 'perceptions' and 'conceptions' of the world.

Neuro-linguistic relativity provides another way of understanding logical fate. Its significance relates not only to different 'languages' as conventionally understood, i.e., English, Hopi, Tarahumara, etc. (language), but also and

perhaps even more importantly to the "linguistic" behavior of each individual (languageJ). The words we use, the sentences we say, the logic we apply, the doctrines we espouse, insofar as they are done in language, must be produced and affect us through neuro-linguistic (languagez) mechanisms.

If we do not understand these mechanisms, we are more likely to misuse them and/or to become misused by means of them. The faith-based mass-murderers of September 11, 2001 probably screamed "Allahu Akbar" (Arabic for "God is Great") as they killed themselves and thousands of others. They could not have done what they did without their particular language-based evaluations. Their actions inevitably required neuro-semantic, neuro-linguistic mechanisms and influences in order to occur.

Training in the system of GS provides an explicit language of evaluation. This language and its associated evaluative (semantic) reactions make our own neuro-evaluative, neuro-linguistic mechanisms more codable and thus more available for each one of us to consciously control. Semiotics pioneer Charles Morris wrote:

The work of A. Korzybski and his followers, psycho-biological in orientation, has largely been devoted to the therapy of the individual, aiming to protect the individual against exploitation by others and by himself. (22)

General Semantics can help us understand the basic mechanism through which this neuro-evaluative, neuro-linguistic control occurs. Out of this understanding, suggestions for practice follow including the use of neuro linguistic devices which can influence perception and behavior in less unsane/insane and more positive, inquiry-oriented directions.

Contribute to the [Module 4 General Discussion](#)

Notes

- Penny Lee 1996, p.87
- Korzybski 1994 (1933), p.90
- Pinker 1994, p.58
- Ibid, p.57
- Korzybski 1994 (1933), p.xl
- Whorf, p.239
- Lamb 2000
- Sampson, p.136
- Qtd. in Vossler, p.235
- Pinker 1994, p.18
- Lamb 2000
- Pinker 1994, p.57
- Ibid, p.57
- Ibid, pp.61-63
- Ibid p.63
- Ibid, p.64
- Whorf, p.210
- Pinker gets his 'information' about this from original research by anthropologist Laura Martin (Martin, 1986) and an article on Martin's work by Geoffrey Pullum, entitled "The Great Eskimo Vocabulary Hoax." Martin's conclusions were later challenged by Stephen O. Murray. The term "hoax" implies a conscious act of deception. Pullum and Pinker abuse Martin's research. They have no actual evidence of conscious deception by Whorf or his colleagues.
- Agar, pp.69-71.
- See P. Kay and W. Kempton, "What is the Sapir-Whorf Hypothesis?" This research is discussed in Lakoff 1987, pp.330-334.
- Kempton. Also see Alford, Minkel, and Nisbett and Norenzayan.
- Morris, p.283

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How Language Shapes Thought

Dr. Lera Boroditsky is now professor of psychology at the University of California, San Diego. At the time of this presentation, she was at Stanford University in Palo Alto, California. One of the leading researchers studying linguistic relativity, in this engaging lecture sponsored by [The Long Now Foundation](#), she brings together numerous examples of research on linguistic relativity, both her own and that of others.

The YouTube video is embedded below. The entire video is one hour forty-one minutes long. You may want to watch it in multiple viewings. Here is a time guide that may be helpful:

- 0:00 Introductory video about Words (interesting, but not directly relevant)
- 3:50 Stewart Brand's introduction of Dr. Boroditsky (Stewart Brand published *The Whole Earth Catalog* from 1968-1972)
- 5:08 Dr. Boroditsky's presentation begins
- 1:09:45 Question & Answer period
- 1:41:11 End

If you would prefer to watch the video directly on YouTube or with a YouTube mobile app, copy/paste this link: <http://youtu.be/cPGpZp1pfQQ>

After viewing the video presentation by Dr. Lera Boroditsky, "How Language Shapes Thought," select two examples of how language affects thought that you found most convincing (or most memorable) and explain your selections.

You will not be able to see others' responses until you post yours.

Relativity, not determinism

One of the most important things to understand about the Linguistic Relativity Hypothesis is that it is not about "determinism". The argument is not that your thought is "determined" by the language that you speak - as is implied by George Orwell's classic book *1984*.

Rather, as Dr. Boroditsky noted in her lecture, the argument for determinism has been de-bunked. Rather the argument is that the language you speak will *affect* how you come to know the world around you. This is an important distinction because it means that it is indeed possible to understand people of different languages and cultures.

Relativity in Physics

As should be obvious from its name, Linguistic Relativity was related to the then emerging Theory of Relativity, which was also quite influential for Alfred Korzybski's thinking. Einstein's Theory of Relativity poses a serious problem to the way that most of us think about the world. Most of us think of the world as a thing that is always the same for all observers. And yet Einstein's theory tells us that perspective matters.

This point is not so simple as the classic parable of the blind men touching different parts of an elephant and insisting that they are all touching something different. That is a worthwhile point, but Einstein's theory goes much further than this.

The theory of relativity predicts that both time and mass change with relative velocity as you approach the speed of light. Thus, the closer you come to the speed of light, relative to some observer, the slower will be the passage of time for you in relation to those you have left behind (this has been demonstrated with atomic clocks on the space shuttle). Similarly, as you approach the speed of light, your mass will appear to an observer to have been foreshortened or compacted in the direction of travel.

Thus, if we were to take the elephant example, if a person is riding an elephant that is moving near the speed of light with respect to some other person, then the person riding the elephant (and the elephant herself) will experience time passing more slowly compared to an observer at rest. What's more, the elephant will appear to be considerably compacted to that observer at rest.

So what?

The upshot of all this is that Physics has come to the understanding that your frame of reference matters quite significantly for the reality that you perceive.

Linguistic and cultural relativity took this idea into the realm of social life - noting that one's frame of reference matters considerably when one is trying to understand the *meaning* of a given cultural practice. Or, to put it in a slightly different idiom, in order to understand a part (e.g., a practice within a culture), one must first grasp the whole (e.g., the culture's system of meaning).

We have already seen some excellent examples of how language can affect our understanding of the world. Next I turn to how our cultural frames of reference can have a rather considerable affect on our understanding of the world - and with very serious consequences!

Cultural Relativity

As an anthropologist, cultural relativism is an important principle. But before anyone think that I am some kind of moral relativist, let me clarify what I mean by this. Cultural relativism, as I practice it, involves adhering to the principles of General Semantics that have been outlined thus far in the course. Most fundamentally, it involves holding off on semantic reactions until one has fully understood the situation and what it means for those involved. Below I will consider two rather charged examples of this kind of thing that have been hotly debated (what might this suggest?) in the media. But first a word on cultural relativism.

Cultural relativism, for me, is a methodological concept. That means that it involves how I go about understanding a situation. Thus, with methodological cultural relativism, one would want to suspend one's judgment of a situation until one has a good grasp of the situation. This does not mean that one can never say what is good or bad. That is what is known as moral relativism. Rather, methodological cultural relativism (or just "cultural relativism") involves exploring the conditions in what some other practice exists before making a judgment about whether or not that practice is good or bad.

"Bride Kidnapping" in Kyrgystan

To take an example, consider the practice of "bride kidnapping" in Kyrgystan. [Watch this 20-minute video on the PBS website](#). (As you watch, remember that videos are representations of the world that already involve a lot of labeling and inferencing - i.e. only a few examples are shown to us, so we are already at a disadvantage. At the same time, this particular video is, at least, an interesting representation of the practice.)

Initially, the very label "bride kidnapping" suggests a practice that is cruel. And yet, watching the video, you begin to

wonder if, perhaps, what they are doing is not quite the same thing as "kidnapping." Often the kidnapping is arranged ahead of time between families, and it seems that the bride can be "in on it". Further, it is important to know that the practice exists b.c. some families cannot afford to pay the necessary bridewealth (money paid from the husband's family to the wife's family). "Bride kidnapping" is the practice that these families must resort to if their sons are going to be married at all.

Thus, to offer another interpretation of the practice that may be true of at some or many of these cases of what is called "bride kidnapping", it may be that these so called "kidnappings" are well known by the bride-to-be and even agreed upon by her (although this is not always the case in the video). It may be the case that, even if she wants to marry the man (or at least is not opposed to it), she must behave in a way that shows that she is not going easily because that would be disrespectful both to her family since they would not be receiving a bridewealth payment and potentially degrading to her b.c. for her to willingly accept would suggest that she is not worth a bridewealth.

Note that it could still be the case that some or most, or even all, of the cases of "bride kidnapping" are actually instances where the woman is randomly snatched off the street by force and it is done against her will. The point is not to conclude that if one instance of the practice turns out harmlessly, then all instances of the practice are harmless, or that one can never be critical of another culture. Rather, the point is that deciding whether or not the practice is problematic will necessarily involve more than just relying on the label "bride kidnapping". Instead, we need to take a scientific perspective, understand the situation and the relevant cultural frame of reference and then decide.

Female Genital Mutilation / Female Circumcision

A second example, that we can consider in slightly more detail is the example of the practice referred to as "Female Genital Mutilation" or "Female Circumcision". We can see right from the get-go how labels really matter. The difference in English between "mutilation" and "circumcision" is dramatic. Whereas the former implies a grotesque and perhaps torturous act, the latter is a common cultural practice that has been widely accepted for male babies in the U.S. and elsewhere for quite a long time. So, then, we have a very practical problem at hand, for the purposes of this module, how should I refer to the practice?

For this module, I find "female circumcision" (or just FC) to be a less loaded term as compared to "female genital mutilation". This keeps open the possibility that some may find that "female circumcision" is a despicable practice (perhaps similar to how some view male circumcision). Using the term "mutilation" makes it difficult for one to take the contradictory side - I mean, who would say "I support a cultural group's right to mutilation"? Alternatively, one could imagine saying "I support a cultural group's right to circumcision". So, FC it is.

The debate over FC is a rather intense and hotly argued one. The politically correct position (in the U.S. at least) has been to oppose the practice. This is argued on the grounds that the practice is:

- oppressive to women
- evidence of male domination
- is an attempt by men to reduce the sexual pleasure of women

I suspect that most who live in the U.S. have at least heard of this debate and have probably come to the conclusion that it is indeed a despicable practice.

And indeed, at this point, it would be difficult to imagine that this practice could be understood in any other way (particularly if we have heard it called "female genital mutilation"). And yet, on the other side of the issue, there are those that argue that this conception of the practice is a gross misunderstanding.

One rather striking example comes from anthropologist Fuambai Ahmadu, an anthropologist who received her PhD from the London School of Economics). In an essay entitled "[Rites and Wrongs: An Insider/Outsider Reflects on Power and Excision](#)", Dr. Ahmadu writes of her own experience of female circumcision. As a woman from Sierra Leone living in the U.S., at 22 years of age, she chose to go back to Sierra Leone to be circumcised - as was standard

part of entry into "womanhood" for Sierra Leonean women. As Ahmadu describes her experience of the practice, it was almost exactly the opposite of what most Americans think of the practice. First, it was a practice that was performed solely by women. This was an important part of the ritual because it involved the women removing themselves from the community to undertake the practice away from the men. Second, she argues that it was, for her, not at all a sign of patriarchal power (i.e. the power of men) but rather was a realization of the power of women because the practice could only be performed by women and because the practice involved getting rid of a kind of bodily maleness and becoming more fully female. Finally, she argues, and further medical research supports her on this point, that her experience of pleasure during sexual activity was not affected by the fact that she was circumcised.

If you have now read the article and my explication, perhaps you are beginning to be convinced that this might not be the horrific practice of male domination that we thought it to be.

And as with "bride kidnapping", following the principle of non-allness would mean that just because one instance of a practice was shown to be acceptable this does not mean that we should conclude that all instances are acceptable. But it at least opens us to the possibility that this practice might *mean* something different to the people who are undertaking it than it means to us.

If you are interested in further reading on the topic, [here is a link to an article by Richard Shweder](#), an anthropologist who has addressed the topic in some detail (and he is quick to acknowledge that he may not be the best person to discuss it since he is a white, Western, male! But the article gives more historical and social perspective on the debate around the practice).

Contribute to the [Module 4 General Discussion](#)

Implications of Linguistic (and cultural) Relativity - here and now

In addition to these implications for cultures around the globe, there are those who have begun to explore the role of relativity within our own culture. One standout in this regard is [Carol Cohn's study of defense intellectuals \(click to download\)](#).



Although she was generally opposed to many of the policies that emerged from the world of defense intellectuals, Cohn decided that she wanted to study them in order to better understand their frame of reference. Although she saw their policies as inherently irrational, she sought to understand. To this end, she conducted ethnographic research where she became a participant observer in a community of defense intellectuals.

She found that these defense intellectuals had a different language that they would use to describe the act of war. For example, as many Americans will recognize, defense intellectuals don't speak of "accidental death" caused by bombs but rather, they refer to "collateral damage."

Examples abound in weapons and war talk. Missiles intended to kill people are called nuclear missiles with up to 400 times the power of the bomb dropped on Hiroshima are called "Peacekeepers", bombs that kill people by explosive power rather than radiation are called "clean bombs", and devices attached to missiles to help them go further into their target are called "penetration aids." And this is where things take an interesting turn that makes one wonder What is this bomb-talk really all about? Back to that in a moment.

Cohn was particularly interested, as any good ethnographer or good GS thinker would, in figuring out how it is that people can talk this way without even noticing that they are doing it. How can people talk about killing people in terms that make it sound like a game of cricket. What she describes is that, as she becomes increasingly indoctrinated into the culture and the language of defense intellectuals, her thinking begins to change. As she writes:

"But as I learned their language, as I became more and more engaged with their information and their arguments, I found that my own thinking was changing. Soon, I could no longer cling to the comfort of studying an external and objectified 'them.' I had to confront a new question: How can I think this way? How can any of us?" (Cohn 1987, p. 488).

Cohn's method of approach here is very much the kind of open-mindedness that one needs to do be a good ethnographer. Just as with the examples of "bride kidnapping" and "FGM/FC", one needs to begin from a place of non-allness by acknowledging that the seemingly irrational acts that other people are engaged in may not be as irrational as they seem to us. Key to gaining this understanding is understanding their frame of reference. And most important to a frame of reference is the language that is used.

So what then does the language used by defense intellectuals *mean*?

Here is a passage from an earlier article of hers on defense intellectuals that should give us some clues as to what else might be involved in the bomb and missile talk of defense intellectuals (and note that this was recorded in the mid-80's well after feminist critiques of weapon-as-phallus had been made - a point that Cohn was particularly struck by since nobody she observed using this language seemed at all aware of this interpretation of their language):

"Another lecturer solemnly and scientifically announced 'to disarm is to get rid of all your stuff.' (This may, in turn, explain why they see serious talk of nuclear disarmament as perfectly resistable, not to mention foolish. If disarmament is emasculation, how could any real man even consider it?) A professor's explanation of why the MX missile is to be placed in the silos of the newest Minuteman missiles, instead of replacing the older, less accurate ones, was 'because they're in the nicest hole--you're not going to take the nicest missile you have and put it in a crummy hole.' Other lectures were filled with discussion of vertical erector launchers, thrust-to-weight ratios, soft lay downs, deep penetration, and the comparative advantages of protracted versus spasm attacks--or what one military adviser to the National Security Council has called 'releasing 70 to 80 percent of our megatonnage in one orgasmic whump.' There was serious concern about the need to harden our missiles and the need to 'face it, the Russians are a little harder than we are.'"

Now, thinking about this in terms of general semantics, we would want to better understand what kinds of semantic reactions might come from making these kinds of associations between armaments and masculinity? (I could get more specific here with terminology, but that would be impolite). Cohn suggests one possibility: "if disarmament is emasculation, how could any real man even consider it?" Whether or not this is precisely what is going on here is certainly up for debate. But it nonetheless raises some interesting questions about whether or not this type of language might not be making the world a much more dangerous place than it really needs to be.

[You may want to visit Cohn's website for more.](#)

Once again, we see that choice of language can potentially have very serious consequences.

Personal Examples

Indicate whether you are mono-lingual (English-only, in this case), bi-lingual, or multi-lingual, and tell us which languages you speak. Then provide an example from your own life where language proved particularly consequential.

For bi- and multi-lingual speakers

This could be an instance where there was a problem with translation from one language to another. Or, it could be a general experience that you have of feeling like you are one kind of person when speaking one language and an altogether different type of person when speaking another language. Or, it could be a difference that you experience in your ability to think about particular topics in one of the languages that you speak (assuming that this isn't just a matter of insufficient vocabulary).

For mono-linguals

Describe some domain in which you had to learn a new set of terms (e.g. a job specific language or perhaps a mathematical language). How did learning that new set of terms affected how you understood the behavior that you were engaged in?

You cannot see others' replies until you've posted your own.

Module 4 Assignment

Pick a controversial issue that you have heard practiced in another culture and do some web research in order to better understand the cultural frame of reference within which that practice is understood. By "controversial," we mean an issue that is considered normal when seen from another culture's frame of reference but which may not be seen as normal or acceptable from your own or someone else's cultural frame of reference. Pay particular attention to the way language and labels encourage you to see the issue in a particular cultural frame of reference.

Here is a short list of some possible controversies:

- eating dogs in some countries
- Muslims chopping off hands of thieves
- Americans with guns
- Americans with the death penalty
- female genital mutilation
- honor killings
- arranged marriages
- death penalty for gays

Write a short essay (250 words or less) describing what you learned from your research. You can type in the box below, or copy/paste from another application. If you found a particularly helpful online resource, include the link.

Optional Readings

These articles provide additional perspectives on the Linguistic Relativity Hypothesis.

You can click on the Preview icon to view the document within this page, or click on the link to download the PDF file to your computer.

Benjamin Lee Whorf

- [Languages and Logic](#)
- [Science and Linguistics](#)
- [The Relation of Habitual Thought and Behavior to Language](#)

John A. Lucy

- [The linguistics of "color"](#)
- [Language, Culture, and Mind in Comparative Perspective](#)

Carol Cohn

- [Nuclear Language and How We Learned to Pat the Bomb](#)

Fuambai Ahmadu

- [Rites and Wrongs: An Insider/Outsider Reflects on Power and Excision](#) (from *Female "Circumcision" in Africa: Culture, Controversy, and Change*, edited by Bettina Shell-Duncan Ylva Hernlund)

Module Completion Checklist



- ☐ 1. Did you complete the readings about **Linguistic Relativity**?
- [Language, Thought, and Behavior](#)
 - [What We Do With Language - What It Does With Us](#)
 - [Relativity](#)
 - [Implications of Linguistic Relativity](#)
- ☐ 2. Did you view the [Lera Boroditsky video presentation](#)?
- ☐ 3. Did you [post your reactions to the Boroditsky presentation](#)? (50 points)
- ☐ 4. Did you [contribute to the Personal Example discussion](#)? (50 points)
- ☐ 5. Did you [submit your Module Assignment](#)? (50 points)

Great!

You're ready to move on to **Module 5: Who Rules Your Symbols?**

