

The Nature of Language (Philosophy 80-180)

I teach an undergraduate class called *The Nature of Language*. This is an introduction to linguistics, which covers the basic skills of language analysis and problem solving in phonetics, phonology, morphology and syntax. I try to teach this course as much as possible with students actually using the skills of linguistic analysis they are learning. To this end I teach the first two-thirds of the course as a laboratory course in linguistic analysis. I try to balance the abstractness and dryness of some of this material by bringing in native speakers of illustrative languages whenever possible, or by illustrating points with the students' own languages or dialects in class. I also remind the students at every opportunity I can, that real people speak these languages; and that they themselves when they speak their own languages use these basic principles of phonetics, phonology, morphology and syntax that they are studying in class. At the end of this section, the students have an in-class project in which they sit down in groups of four or five with a native speaker of a language they have never studied, and construct a small grammar of that language. This exercise gives the students a chance to integrate what they have learned of phonetics, phonology, morphology and syntactic analysis; and to see that they can use these skills in a very tangible way, in going from a real human being to the abstract properties of the language that person speaks. I have found that this way of teaching linguistic analysis gives the course a more unifying theme than introductory textbooks usually provide in covering these subjects. The students also realize through sharing their analyses of the different languages afterwards, that very different languages can be analyzed using the same basic tools.

The last third of the course is devoted to various related topics. These may include neuroscience and the brain-language connection, computational linguistics and machine language processing, child language acquisition, and animal communication. For the animal communication section of the course I bring a registered service dog to class, which I use to demonstrate that the dog can understand signals with arbitrary connections between form and meaning (as do humans when they use language), but cannot understand communications about things displaced in time or distance. In place of the last exam, the students can substitute a paper or project, and students can use this option to devise projects at the intersection of linguistics with their own interests or fields of study. Some things students have done using their knowledge of linguistics include: comparing and testing different speech recognition products on the market; researching the history of the English language; analyzing how the Cantonese-speaking community at CMU merges English expressions into Cantonese grammar; researching the literature on language attrition among speakers of a second language; developing a natural language interface with spatial reference to attach to a virtual world; writing a linguistic assessment of a project to develop an automated recognizer for American Sign Language; comparing the differences between Mandarin speakers learning English and English speakers learning Mandarin; researching how English is used online; and creating an original language based on linguistic principles.

This is what I want my students to take away from this course:

- First: some understanding of what linguistics has to contribute to their own field of study, be it philosophy, computer science, psychology, or English literature.
- Second: the understanding that at the right level of abstraction, all human languages follow the same basic plan, no matter how strange or different they may seem. From

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there it is a small step to realize that under the skin, and beyond our linguistic and cultural differences, we are all the same.

- Third: some appreciation for the abstract nature and structure of human language. As human beings, this is a great and unique gift we share, and we cannot appreciate how difficult it is to actually use language until we examine it in a dispassionate and analytic way.

Finally, I want to make my students wonder and make them think. If our young people can wonder and can think, then their minds are truly alive.