Introduction to Cultural Anthropology: Class 18

Language

- What is language?
  - a **symbolic system**
    - a **symbol** is one type of **sign**
    - **sign**: something that refers to (stands for, indicates, means) something else
      - a **sign** indicates its **referent** (what it refers to, or stands for)
      - the ability of a sign to indicate (stand for, mean) something else is called **reference**
    - Three kinds of signs:
      - **icon**: a sign that resembles its referent
        - like a stick figure that stands for the concept of "man"
        - or a linguistic sign that sounds like what it means
          - "bang", "cock-a-doodle-doo"
            - although you have never actually heard a rooster say "cock-a-doodle-doo"
            - and in other languages roosters make different sounds ("quiquiriqui" in Spanish)
            - so the "iconicity" of many supposedly iconic signs is debatable
      - **index**: a sign that indicates its referent; is directly cuased by the referent, or causes the referent
        - an honest smile is an index of being happy
          - it is caused by the state of being happy, and we recognize it as indicating that state
        - a scream is an index of pain
        - a gesture pointing up directly implies "up"
        - a gesture pointing at a thing directly indicates that thing
        - some people do not consider indexical signs to be linguistic at all
          - because they are not created to refer to something, but instead are simply observed
          - they re related to the referent by physical causes in the material world, not by a mental construct
          - a predator charging at you is an index of danger, so you run away – but does that involve a linguistic process?
      - **symbol**: an *arbitrary* sign that stands for something else
        - no inherent relationship to its referent
        - the connection is purely by convention or agreement
        - we agree that a red octagon means "stop", but people in other cultures could never guess that
        - words are symbols: the sound "pen" has no inherent relationship to the object; we just agree what it means
    - icons and indices are extremely limited; you could not communicate much using only iconic and indexical signs
    - but because symbols are arbitrary, there is no limit on them
      - you can always invent a new one and assign a meaning to it
      - so the use of symbols is absolutely necessary for a system that has to express more than a handful of simple concepts

    - most linguistic signs are symbols
        - they do not sound like what they stand for or otherwise have any inherent relationship to their meaning
- a **system** or structure that prescribes how the symbols may be meaningfully combined
    - actually, language has at least two such systems or structures
    - more on this below
- that is **learned** from others
    - that is, it is **culturally transmitted**
    - through a process of **social learning**
        - rather than being something that each individual figures out on his or her own
        - walking or throwing may be individually learned through experiment and experience
        - but language has to be learned from others, socially
- that is **productive**
    - the symbols can be combined in novel ways to create virtually infinite meaningful combinations
    - that is, speakers constantly (and effortlessly) say things that they have never heard someone else say, that may never have been said before
- that can express **displacement**
    - that is, language can refer to things not present in time or space
        - an object that is hidden
        - something that happened in the past, will happen in the future, or one hopes will happen
        - something that does not exist, or did not happen
            - as in making a conjecture or hypothesis
            - wishing or hoping for something
            - lying! (talking about something that does not actually exist or did not actually happen)
- language is often said to necessarily have "**duality of patterning**"
    - 1. **phonetic** or **phonemic** patterning:
        - this system of patterning structures how units of sound (which generally have no meaning in themselves) may be combined into acceptable syllables and words
            - without regard for what these combinations mean
            - every language has its own phonemic patterns
            - certain sounds are recognized, and others are not
            - certain sound combinations are OK, and others are not
            - in English we can say "thanks" and "minimum", while Spanish speakers have trouble saying the initial "th" or the terminal "um"
            - this is why a word you have never heard before can sound like English, or sound foreign: because it complies with English phonemic patterning, or does not
        - this allows for a very large number of possible words
        - we will touch on the difference between phonetics and phonemics later
    - 2. **syntax** or **grammatical** patterning:
        - this system of patterning structures how units of meaning (words and smaller units of meaning such as "un-" or "-s") may be combined into phrases or sentences
        - this is independent of the system governing combinations of sounds

    - allows a very large number of different phrases
  - only duality of patterning (the *combination* of phonemic patterning and syntactic patterning) allows us to create truly novel utterances
    - that is, can produce a virtually infinite number of possible meaningful utterances
    - imagine if there were only phonemic patterning (the system for patterning sounds into acceptable words)
      - we could make many different words, but not combine them
      - but each word is an arbitrary symbol: it has to be learned by rote, it's meaning cannot be figured out
      - people would have to learn all possible words, and thus all possible utterances, by social agreement beforehand
      - language could not be "productive", or capable of expressing novel meanings
    - imagine if there were only syntactic patterning (the system for combining words into phrases or sentences)
      - the number of words would be limited to the number of individual sounds that could be distinguished
      - no way to expand the number of words by combining sounds
      - with such a limited vocabulary, there would probably not be enough words (or categories, or concepts) to allow for novel utterances
    - only by multiplying…
      - the huge number of words made possible by phonemic (sound) patterning
      - by the huge number of combinations allowed by syntactic (meaning) patterning
      - can language create virtually infinite novel utterances
    - so duality of patterning is necessary for language to be "productive" – capable of expressing novel ideas

- Why do cultural anthropologists care about language?
  - cultural anthropologists need to learn the language of their subjects
    - this is perhaps a trivial reason
  - language is far more developed among humans than among any other animals
    - so it seems to be something essential about humans
    - if we want to understand humans, clearly we need to understand one of their defining features: language
  - language is clearly part of culture: learned, arbitrary, symbolic, social
    - some people even argue that language and culture are different expressions of the same human capacity for symbolic thought
      - the capacity to classify other people into many categories and relate to them accordingly
      - the capacity to plan ahead, and to think about past events
      - the capacity to visualize a stone tool and the steps needed to make it when looking at a lump of rock
      - the capacity to interpret the "meaning" of the behavior of others and respond to it appropriately
    - so to understand how culture works, we have to understand how language works
      - this gets into some arcane theorizing about cognition (how we think)

    - we will mostly slide past this in this introductory class
    - but if you are interested, check out "The Symbolic Species" by Terrence Deacon for a fascinating but difficult introduction
  - cultural behavior uses language, influences language, is influenced by language
    - so the categories and structure of language may offer clues about other aspects of a culture
    - a language may have many words for certain domains, like kinds of music, rice, or warfare
      - that presumably indicates areas of particular relevance to people of that culture
    - a language may require speakers to constantly specify things like gender or relative status
      - presumably, linguistic features like these hint at what people think about, or what matters to them
  - people use language in ways that go beyond simply linguistic communication
    - to convey unstated messages about social status, group membership, etc.
    - to control others, or to resist control, etc.
    - so the use of language is interesting in the same way that any other behavior is
      - as a part of, and clue to, culture

- Is language uniquely human?
  - call systems among wild non-human primates
    - limited number of calls
      - no *phonemic patterning* to construct additional calls
    - a call is a reaction to a specific stimulus that is actually present
      - vervet monkeys have different calls for leopards, pythons, and eagles
      - no *displacement*
    - cause an appropriate response by others of same group
      - so calls are *signs* understood by others
      - but are they *symbols*? (we'll get back to that)
    - cannot be combined into more complex messages
      - no *syntactical patterning*
      - not *productive*
    - some experts say that calls in some primate species like vervets are learned; others say they are inborn
      - if calls are not *learned*, that would be another difference from language
    - the calls are apparently not *symbolic*
      - instead, individuals simply learn the appropriate response
      - without necessarily "understanding" a referent
  - Some chimps and gorillas in lab settings have been taught hundreds of signs
    - some using American Sign Language, like chimps Washoe and Lucy, gorilla Koko
    - some using keyboards with arbitrary signs, plastic shapes arranged on a sign board, or other methods
    - they clearly use the signs to refer to other things ("reference")
      - they know what the symbols stand for and communicate observations, desires, etc. using them
    - but did they "understand" these signs as symbols, in the same linguistic sense that humans do?

- debate still rages about to what extent non-human primates "understand" that the signs refer to something else
  - as opposed to just rote learning that using X sign gets Y response
  - that is, just training or conditioning, the way a pigeon can learn that pecking X sign causes food to appear
- but some clues that that they do understand references:
  - they sometimes generalize from a sign for one specific thing to other, similar items, suggesting that they use the sign for a concept rather than a specific thing
    - sign for "apple" used for other reddish, roundish fruits
    - or sign for "straw" used for a new, tall antenna
  - some chimps can categorize objects that they can name into more general categories
    - that is, they can correctly assign signs that they know for specific items into groups indicated by other, more general signs like "tool" versus "food"
    - this seems to indicate that they understand the concepts that the signs refer to, rather than connecting them to specific responses
    - but concern remains about whether they learned to do this by rote, or whether they really grasp the concepts of the categories ("tool", "food")
- several cases of social learning among chimps and gorillas
  - individuals who picked up the sign system while a different individual was being taught it
  - chimps who taught the system to other chimps without human prompting
  - that is, chimp and gorilla "language" does involve social learning
- they sometimes show productivity
  - by combining symbols in appropriate ways to describe objects they have never seen before
    - "drink fruit" for "watermelon"
    - "finger bracelet" for "ring"
- they sometimes express displacement
  - referring to past events
  - lying!
    - lying is displacement in that it refers to something that is not present, in fact does not exist or did not happen at all
    - observed not only among captive chimps and gorillas, but also (debatably) among wild baboons and others
- whether non-human primates use language as humans do is still debated
  - but they clearly have some similar abilities
  - but much less well developed

- Structure and description of language
  - **Phonology**: study of speech sounds
    - **phonetics**: describes the sounds of a language in terms not tied to any particular language
      - necessary in order to describe all the possible speech sounds that humans can make
      - no language uses all the possible different sounds humans can make
    - **phonemics** describes …

- how speakers of a given language *categorize* the range of possible speech sounds into significant types (phonemes)
  - **phonemes**: the smallest significant units of sound in a given language
  - which range of sounds do they lump together as being "the same" phoneme?
  - where they draw the lines between one phoneme and another?
  - which sounds are relevant to communication, and which are ignored?
    - different kinds of clicks are crucial to meaning for the Ju/'hoansi
    - English speakers generally ignore clicks as irrelevant background noise
  - each language divides up the range of sounds humans can make differently
  - the phonemes of a language are determined by finding "**minimal pairs**", or words that differ in meaning due to the change of a single sound
    - Kottak: a minimal pair is "a contrast that makes a difference"
    - as in "van" and "ban"; the contrast is between /v/ and /b/
    - this is a significant contrast in English
      - /v/ and /b/ are different phonemes in English
    - but they are not different phonemes in Peruvian Spanish
      - most speakers of Peruvian Spanish cannot hear the difference, and do not use it to distinguish between different words
    - similarly, Spanish speakers distinguish between /r/ and /rr/ ("rolled r"); English speakers do not
      - Spanish pero ("but") vs. perro ("dog")
      - Some British English (especially from Wales and Scotland) speakers roll some r's, but it makes no difference to the meaning
    - English speakers generally do not hear the difference between an aspirated [p^h] (as in "pin") and a non-aspirated [p] (as in "spin").
      - hold your hand close to your mouth to feel the difference; there is a puff of air after the [p^h] in "pin"
      - this difference IS significant in some languages
      - in Hindi, [p^h] and [p] are distinct phonemes, and there are minimal pairs of words that are distinguished by which of the two is used
  - how speakers of a given language *combine* phonemes into words
    - for example, English speakers do not place the phonemes /t/ and /l/ next to each other, finding this a difficult and unnatural combination
      - while speakers of Nahuatl, the language of the Aztecs, do so routinely (tomatl, atl-atl)
    - English speakers routinely start words with combinations of "s" and another consonant like "t" or "m" (sterile, small)
      - while speakers of Spanish find this combination almost impossible to pronounce; their phonemic system requires an "e" before the "s" (esteril, esmalte)
    - like the system for categorizing sounds, these rules for combining elements (phonemes) are arbitrary
      - yet the speakers of a language, these rules appear so natural, normal, obvious that they are often physically difficult to violate
- by the way, this is the origin of the terms "emic" and "etic" that we have been using

    - the contrast between phon*etics* (description of all possible sounds, specific to no one language, from an outside scientist's point of view)
    - and phon*emics* (description of how speakers of a particular language classify and combine sounds)
  - **Morphology**: study of units of meaning and how they are combined into words
    - **morphemes** are the smallest units of meaning in a language
      - two English morphemes are "dog" [an animal] and "-s" [plural]
    - every language has different morphemes
      - that is, every language divides up the same reality into different categories
      - we will look at this more later on
    - morphology describes how these morphemes may be combined
      - in English morphology, the morpheme "-s" that indicates plurality has to go on the end of the word: "dogs"
      - a combination with the morpheme "-s" first, like "sdog" is meaningless, because it does not comply with the rules of English morphology
    - again, both the categories (morphemes) and the structure of their relationships (morphology), are arbitrary social constructions
  - **Syntax** (or **grammar**): system or rules of arrangement of words into phrases
    - again, a structure that is an arbitrary social construction

- This discussion of symbols, arbitrariness, social construction, categories, and structure should sound like our earlier discussion of culture as a system of meanings
  - both language and culture are systems of symbolic meanings
  - like language, culture categorizes experience or perceptions
    - much as language categorizes sounds into phonemes
    - and as language categorizes perceptions into morphemes (words)
  - like language, culture involves rules or structures for understanding the relationships between things, and rules or a "grammar" of behavior to respond to experience
    - much as language establishes rules or structures for understanding utterances
    - and for generating responses
  - This parallel between language and culture is not a coincidence
    - in part because anthropologists have used linguistics as a source of metaphors for describing and understanding culture
    - but also in part because the cognitive abilities and processes that enable humans to learn and use the symbolic system of language are probably close to, or the same as, those that enable us to learn and use the symbolic system of culture

- Just as anthropologists consider all cultures to be equally "valid", we consider all languages to be equally functional
  - some languages have more words for some subjects
    - others have to explain the same concepts using many more words
    - for example, some concepts that German expresses in a single word take many words to express in English, but they nevertheless can be expressed in English
      - German "schadenfreude" = English "pleasure that results from someone else's misfortune"

  - some have grammars more suited ton communicate certain kinds of concepts
  - even so, all natural languages appear able to express pretty much everything their speakers need to say
  - with enough effort, anything can be translated into any other language
  - thus all languages are capable of expressing the full range of human thought
- Language as a categorizing system
  - words are symbols for categories of experience or perception
  - consider color terms
    - example: blue in English and Spanish
      - "blue" in English covers two distinct colors in Spanish: "azul" [dark blue] and "celeste" [light or sky blue]
      - Spanish speakers do not consider azul and celeste to be variants of single color, as English speakers do; they are two distinct colors
      - Say a Spanish speaker has three crayons, one red, one green, and one light blue.
        - If you ask the "azul" one, the Spanish speaker will just be confused, and will probably say that he or she has no azul crayon
        - while if you asked an English speaker for the "blue" crayon, he or she would understand immediately that you meant the light blue one.
      - Example with the "blue" truck in Moquegua, Peru
  - more complex systems of categories also vary from one language to another
    - example: brushes in English and Spanish
    - all the objects in the example slide are "brushes" to an English speaker
      - what they have in common is that all have a mass of bristles or hairs
      - they can be subdivided into types according to what they are used for
    - to a Peruvian Spanish speaker, there is no single category or word for these objects
      - they are first divided by the kind of use they are put to
      - and then some of those are divided by the material they are used on
    - if you asked English speakers and Spanish speakers to lump some of these items by similarity, they would respond with different groupings
      - because their languages categorize the objects according to different characteristics
      - so the speakers focus on the characteristics that their language singles out as most important
  - So what?
    - this goes beyond an arbitrary naming game
    - it actually affects how people lump and split the perceptions of their world
      - what things they consider to be "the same" and "different"
      - what characteristics they consider more or less fundamental or important
    - surely that must affect how they think about the world
- Language and thought: The Sapir-Whorf hypothesis
  - claim (still controversial): language affects perception and thought
  - The categories (words) of a language affect how people perceive and think of the world
    - Benjamin Lee Whorf's famous "empty gas drum" example
      - in English, we have words for full and empty

        - they focus on the intended or principal contents of the container
        - an empty milk bottle might still have a few drops at the bottom, or a film on the sides. It is nevertheless called "empty"
        - an empty garbage can may still contain a stink
        - we have no single word for "empty of main contents but still containing residue"
      - so a pile of gas drums with no fuel but full of flammable fumes can be marked "empty"
      - leading to inappropriate behavior and explosions
    - The differing categorization of brushes and colors in Spanish and English
      - leads to considering different features to be fundamental to what an object is
- The structure (grammar) of a language also affects the speaker's view of the world
  - Whorf's example about time in English and Hopi
    - English grammar forces us to constantly specify whether any verb refers to the past, present, or future
    - we are forced to think about this three-way division of time every time we speak
      - but we only optionally indicate whether or not something is hypothetical
      - we routinely speak of future events as certain ("When the sun rises, I will go to work.")
    - but the Hopi language requires speakers to specify whether events have come to be (that is, present OR past) or have not come to be (hypothetical OR future)
    - so Hopi speakers arguably have a different categorization and outlook on time
      - in which the future is lumped with hypothetical events
      - and the past is lumped with the present
      - Whorf argued that this explains why Hopi supposedly take a casual attitude towards finishing projects, and tend to not think about deadlines or how long something will take
      - it might also explain their strong feelings about the past and tradition, which they understand as being in some sense in the same category as the present
    - While English speakers are more prone to
      - think of the future as something they can plan and count on
      - think of time as something naturally quantifiable
      - and think of the past as being gone
  - Gender in Spanish and English
    - Spanish, German, and many other grammars force you to identify the gender of every noun in every sentence
      - *El libro* (the [masculine] book); *La computadora* (the [feminine] computer)
    - in English, you use most nouns without specifying a gender
      - the book, the computer
    - presumably, Spanish speakers are forced by their language to think of gender constantly, to see it everywhere, to consider it relevant to everything
      - some say that these grammatical conventions have lost their meaning, and are just details of how sentences are formed
        - called "dead metaphors" – maybe they had meaning once, but now they are purely conventional
      - or maybe not…

        - it is at least possible that Spanish affects its speakers' view gender in the world and gender roles
    - Formality in Spanish and English
        - Spanish, German, etc. grammars force the speaker to acknowledge the social status of a person being addressed relative to the one speaking
            - *tu* (you [informal; you are of similar or lower status]); *Usted* (you [formal; you are of higher status])
        - again, wouldn't this have an effect on how Spanish speakers view the social world, compared to English speakers who can usually ignore or hide relative status?
- Whether or not language actually does affect how people think is a very hard thing to test
    - how can you separate thought and language?
- tested (in a small way) by projects that asked people of different cultures to group or name color samples (like paint color chips)
    - languages as used by non-specialist speakers have differing numbers of basic color terms
        - that is, ones that mean just a color ("red", "green", "blue")
        - additional colors have to be explained or indicated with metaphors ("sky blue", "rose")
            - of course, experts in color (painters, fashion designers, makeup artists, consumers of fashion products, etc.) may have additional specialized terms that most speakers of the language do not know
    - a few languages have just two basic terms: light and dark (white and black)
    - others have three, four, five… up to about ten that are widely used
        - consider how we conventionally divide the spectrum:
        - Red, Orange, Yellow, Green, Blue, Indigo, Violet
            - I have always had some doubts about "indigo"; I suspect it is there to make the mnemonic "Roy G. Biv" pronounceable
            - and your article by Thomson on the Sapir-Whorf hypothesis suggests that English speakers usually use "purple" to cover both indigo and violet (as I would)
            - so that is 6 basic color terms in English, plus black and white
    - point: languages divide up the color spectrum in different ways
        - these categories, and where the lines fall between them, are… you guessed it… arbitrary social constructs
    - and they DO affect peoples' thinking
        - one study showed people a color chip, then later asked them to pick out that chip from among a bunch of similar ones
        - when the chip was in the middle of a range of colors with a name in the person's language, he or she was better able to remember and recognize the color later
        - when the chip was near the edge of a color category, that is, was a borderline case, the person did less well at recognizing it
        - the colors they could remember well were determined by the language that they spoke!

- A related concept: focal vocabulary
    - most languages divide certain areas of experience into many, detailed categories
        - like the Philippine Hanunóo with their 92 named types of rice
            - a Hanunóo can make very fine distinctions about rice that most Americans cannot

    - Americans can make many fine distinctions about types of cars, which a Hanunóo probably could not
    - a California Yuppie, who can easy make many fine distinctions about cheese, which all just seems like “cheese” a provincial Peruvian
    - the Peruvian can identify and name many varieties of music (salsa, cumbia, rhumba, samba, mambo, marengue, etc.)
      - which all sound to many English speakers more or less like “Latin music” or (incorrectly) “salsa”
  - of course, each of these people could learn to make the distinctions that the other ones do
  - focal vocabulary suggests things that are relevant or important to speakers of the language
    - that they have to be able to communicate frequently, efficiently, and precisely about
  - but also presumably facilitates thinking about those things
    - if you have the words for fine distinctions, you know what to look for
    - you might notice subtle differences that are far too slight for someone who does not know those distinctions to every pick up
    - you can presumably think more carefully about the different types, notice patterns among them more easily, etc.
- So, which comes first, the language, or the categories and ways of thinking about them?
  - does language reflect culture and thought?
  - or does language shape culture and thought?
  - or is it some combination of both?
-