Introduction to Cultural Anthropology: Class 21

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 caused 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 are 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 invents 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
        - a language only works if multiple people know it!
- 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**"
    - patterning of a small number of meaningless sounds makes possible another level of patterning: a vast number of meaningful words
    - 1. **phonological** (sound) patterning (**phonology**):
        - defines a small number of identifiable, distinguishable units of sound
        - /k/, /a/, /t/, etc.
        - called **phonemes**
        - which are meaningless
        - and how those units of sound may be combined into longer, composite sounds
            - English phonological rules allow /t/ /a/, but not /t/ /k/
        - producing a very large number of possible composite sounds that speakers of the language can identify
        - every language has its own phonological patterns
            - certain sounds are categorized as the same, and others are separated as being different
            - certain sound combinations are OK, and others are not
            - in English we can say "stop", while Spanish speakers have trouble saying the initial "st"

        - in Spanish, that is not an allowable combination of sounds
        - it must be preceded by a vowel, like "estop"
      - this is why a word you have never heard before can sound like English, or sound foreign:
        - because it complies with English phonological patterning, or does not
  - This large number of distinguishable composite sounds makes possible an additional, second level of patterning: patterning of meaning
  - 2. **morphological** (meaning) patterning (**morphology**):
    - defines the smallest units of meaning
      - "dog", "car", etc.
      - "-s" for plural, "un-" for negation, etc.
      - called **morphemes**
    - and how these units of meaning may be combined into acceptable words
      - English morphological rules require the "-s" for "plural" to follow the morpheme it refers to
        - "apples" follows the rules and conveys meaning
        - "sapple" does not follow the rules, and means nothing
    - a system for expressing meaning (beyond a basic call system of one sound to one meaning)…
      - can only exist on top of a system of a system for generating a large number of sound symbols
      - that is the duality of patterning: patterning of meaning emerges from patterning of meaningless sounds

- Why do cultural anthropologists care about language?
  - cultural anthropologists need to learn the language of the people they want to study
    - 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, shared, arbitrary, symbolic…
    - some people even argue that language and culture are different expressions of the same human capacity for symbolic thought
      - the capacity to classify people and things into many categories and relate to them accordingly
      - the capacity to plan ahead, and to think about past events (displacement)
      - 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, it will help to understand how language works
  - culture is expressed through 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
    - Example of bonobos (pygmy chimps) at the Twycross Zoo in England
        - they make different calls depending on whether they found a kiwi fruit (a preferred food), or an apple (a less preferred food)
        - when researchers play a recording of the preferred-food call, the bonobos will spend more time looking for food in that area than if they play back the less-preferred food call
        - that is, the calls really do communicate specific information between the bonobos
    - limited number of calls
        - no *phonological 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)
        - instead, individuals simply learn the appropriate response
        - without necessarily "understanding" a referent
    - cannot be combined into more complex messages
        - no *morphological 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
  - 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 where a certain sign is painted 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
    - suggests that the chimp understands "straw" to *mean* "a long skinny thing", rather than learning "make this sign to get that particular object"
  - 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" can involve social learning, at least in unnatural lab settings
- 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
  - they clearly have some similar abilities
  - but much less well developed
  - instead of asking "do non-human primates have language?"…
  - we should ask "which linguistic abilities do they have, and how well developed is each?"

- Language is essentially a system of categorizing sounds and meanings

- in ways that are arbitrary cultural constructs
- for example, every language categorizes sounds in its own way
  - each language divides up the range of sounds humans into its own set of **phonemes**
    - what ranges of sounds are considered the "same" sound (the same phoneme)
    - which sounds are considered different
    - and which are ignored as irrelevant to speech
  - Example:
    - different kinds of clicks are crucial to meaning for the Ju/'hoansi
    - English speakers generally ignore clicks as irrelevant background noise
  - Anthropologists and linguists identify the phonemes of a language by finding "**minimal pairs**"
    - **minimal pair**: two 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")
      - English speakers can generally detect the difference, but treat both sounds as the same: just different ways of saying /r/
      - Some British English (especially from Wales and Scotland) speakers roll some r's, but it makes no difference to the meaning: English speakers learn to ignore this difference

- Language is also a system of rules for using these categories
  - 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 (actually hard for them to make the sounds)
  - the same is true for the rules of combining morphemes (morphology)
    - as we saw before, "apples" makes sense in English, but "sapple" does not
    - the rule that the morpheme that means "plural" has to come after the noun is completely arbitrary

- 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 combining sounds (phonological patterning)
  - and as language has rules for combining units of meaning (morphology and syntax)
- This parallel between language and culture is not a coincidence
  - in part because anthropologists have used language as a source of metaphors or analogies to describe and understand culture
  - but also because they *are* similar symbolic systems
  - the abilities 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
  - language and culture probably evolved in parallel as human symbolic cognition evolved