Cognitive Structure Analysis

Finding the underlying structure of meaning in everyday life/discourse

Culture is...

- Customs, beliefs, institutions, artifacts...
- What one would have to know in order to behave appropriately in any role recognized in a given society.

Investigating Cultural Knowledge

- Cultural knowledge is organized and systematic
- What form do systems of cultural knowledge have?
- Can the study of culture be modeled on the study of language (an important cultural system)?

Studying sounds of language

- What are the distinctive features that distinguish the phonemes of a language one from the other?
- Phonetic and phonemic distinctions

Phonetic vowel paradigm

Narrowing the focus of cognitive anthropology

- How is meaning made in everyday life?
- *Much (perhaps most) of cultural knowledge is encoded in and transmitted via language.*
- How is meaning made in everyday language?
- *Most of language is about things.*
- How is meaning organized in groups of nouns?
- What are the emic distinctions that matter in cultural systems?
- Accounting for observed complexity in terms of simpler underlying structure.
English Personal Pronouns

<table>
<thead>
<tr>
<th>Person/Number</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>I</td>
<td>we</td>
</tr>
<tr>
<td>Second</td>
<td>you</td>
<td>you</td>
</tr>
<tr>
<td>Third</td>
<td>he/him/his</td>
<td>they</td>
</tr>
</tbody>
</table>

Trobiand Personal Pronouns

<table>
<thead>
<tr>
<th>Person/Number</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>yegu</td>
<td>yaka</td>
<td>yaka</td>
</tr>
<tr>
<td>Second</td>
<td>yokwa</td>
<td></td>
<td>yokwami</td>
</tr>
<tr>
<td>Third</td>
<td>ma&lt;pc&gt;na</td>
<td></td>
<td>ma&lt;pc&gt;ina</td>
</tr>
</tbody>
</table>

Meta-linguistic Vocabulary

<table>
<thead>
<tr>
<th>Term</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexeme</td>
<td>Kin term (Mother)</td>
</tr>
<tr>
<td>Domain</td>
<td>Kinship</td>
</tr>
<tr>
<td>Denotata</td>
<td>Kin type (e.g., MoBr)</td>
</tr>
<tr>
<td>Attributes</td>
<td>Female, nurturing</td>
</tr>
<tr>
<td>Semantic feature</td>
<td>Female</td>
</tr>
<tr>
<td>Dimension</td>
<td>Sex</td>
</tr>
</tbody>
</table>

Chiricahua Apache Warriors

Chiricahua Apache Kinterms

Key for Chiricahua kinterms:
- A'cinaté: E: cíná
- B'cinaté: F: cináté
- C'cinaté: M: cináté
- D'cinaté: N: cináté
- “c’” is pronounced like the “sh” in “shell”
- ^ represents a low tone
- ~ represents a high tone
- ¥ is a voiced velar fricative

Figure 2.1 Chiricahua kinship terms

Cideedee’
Reducing the kin-types to relational features

Cideede denotes a consanguineal relative of my parent’s generation who is on my father’s side of the family, or for the reciprocal relationship a consanguineal relative who is the child of a man of my generation.

Cideede’

Cideede’

English Sibling Terms

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td>=</td>
<td>male speaking</td>
</tr>
<tr>
<td>o</td>
<td>=</td>
<td>female speaking</td>
</tr>
<tr>
<td>B</td>
<td>=</td>
<td>brother</td>
</tr>
<tr>
<td>Z</td>
<td>=</td>
<td>sister</td>
</tr>
<tr>
<td>s</td>
<td>=</td>
<td>elder</td>
</tr>
<tr>
<td>y</td>
<td>=</td>
<td>younger</td>
</tr>
</tbody>
</table>
Trobiand Sibling Terms

Tuwa\textsuperscript{p.p.} Bwada\textsuperscript{p.p.} Lu\textsuperscript{p.p.} ta

Humans Prefer Conjunctive Definitions

Simple Paradigms

A simple taxonomy

English Kinship Paradigm

Classical Feature model method

- Collecting the terms that matter in a domain
- Denotational meaning
  - what it takes to distinguish each denoted thing from other denoted things (in a contrast set)
- Connotational meaning – ignore this
  - whatever else is implied
- Distinctive features
  - necessary and sufficient conditions for category membership
- Componential (feature) analysis
  - finding the components of meaning that matter in a domain
English Kinship Paradigm

Investigating the organization of meaning

- features of meaning
  - pairs of items that share distinctive features will be judged to be more similar than pairs of items that do not share features
- similarity judgments
  - pairs of items that are judged to be similar share distinctive features (even if we do not know what those features are).

Eliciting similarity judgments

- Free association
- Pile sorting
- Triads
- Latent semantic indexing
- Organizing opportunities for co-occurrence
  - Co-occurrence -> similarity -> shared features

Which is most different?

Father   Mother   Son

Which is most different?

Father   Son   Daughter

Which is most different?

Father   Mother   Daughter
Which is most different?

Mother  Son  Daughter

Which is most different?

- Father  Mother  Son
- Father  Mother  Daughter
- Father  Son  Daughter
- Mother  Son  Daughter

Table 3.3. All possible pairs for the set father, mother, son, daughter

<table>
<thead>
<tr>
<th>Pair</th>
<th>Father</th>
<th>Mother</th>
<th>Son</th>
<th>Daughter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

*Figures in parentheses indicate the number of times a term was selected as most different in meaning from the other two terms by an respondent.

Figure 3.11 Pairings of selected kin terms. Frequencies represent mean number of times terms were classified together.

A 3-D solution to the American kinship paradigm

Figure 3.14 Diagrammatic representation of Romney feature analysis of English kin terms. Connecting lines indicate terms paired together with high frequency. Numbers give mean frequency of pairings.

English Kinship Paradigm

Figure 3.9 Feature analysis of English kin terms

Figure 4.2 Two dimensional KYST representation of color terms (Adapted from Fillenbaum and Rapoport 1971)
Holland and Skinner Methods

- Interviews (42) to elicit gender types and descriptions of the types
- Sort cards bearing the type names into piles, and describe the similarities in the piles.
  - Piles -> similarity metric -> MDS
  - Identify themes or dimensions
- Participant observation and more interviews
  - talking diary
  - describe a relationship

Holland and Skinner Questions

- What do our informants assume about ordinary relationships between males and females?
- What are the taken for granted worlds in which these male and female types interact?
Question

What did Holland and Skinner get out of their analysis of interview data that they could not get out of cognitive structure analysis?

Why is the paper titled “Prestige and Intimacy”?

The women’s model

• Man shows affection and attention to the woman’s needs
• Man is sensitive to woman’s response
• And man is attractive
• Woman returns affection and permits intimacy to develop
• “Treat me right, and we’ll see.”

The men’s model

(as seen by the women)

• My woman is hot!
• Let’s move this intimacy thing along.
• Give me some space.
• “Hey bro, check out how good I look with her.”