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

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.

Phonetic vowel paradigm

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/she/it</td>
<td>they</td>
</tr>
</tbody>
</table>
## Trobriand Personal Pronouns

<table>
<thead>
<tr>
<th>Person/Number</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>incl</td>
<td>excl</td>
<td>incl</td>
</tr>
<tr>
<td>First</td>
<td>yegu</td>
<td>yakida</td>
<td>yakama</td>
</tr>
<tr>
<td>Second</td>
<td>yokwa</td>
<td></td>
<td>yokwami</td>
</tr>
<tr>
<td>Third</td>
<td>man=poc&gt;na</td>
<td></td>
<td>man=poc&gt;sina</td>
</tr>
</tbody>
</table>

## 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 kin terms

- A cínabé
- B cíndé
- C cínsi
- D cíncó
- E cívah
- F cídeédé
- G ciwlé
- H cíwóké
- I cíla
- J cíla

- “c” is pronounced like the “sh” in “shell”
- “é” represents a low tone
- “é” represents a high tone
- “b” is a voiced velar fricative

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Figure 2.1 Chiricahua kinship terms

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## Cideede’

Reducing the kin-types to relational features

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Figure 2.2 Level 1 reduction of terms F kin types

Figure 2.3 Level 2 reduction of terms F kin types

Figure 2.4 Level 3 reduction of terms F kin types

Figure 2.5 Level 4 reduction of terms F kin types
Cideedee 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.

**English Sibling Terms**

<table>
<thead>
<tr>
<th>Brother</th>
<th>Sister</th>
</tr>
</thead>
<tbody>
<tr>
<td>xBe, cBe, xZe, oZe</td>
<td>xBy, oBy, xZy, oZy</td>
</tr>
</tbody>
</table>

**Trobriland Sibling Terms**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>x = male speaking</td>
<td>x = male speaking</td>
</tr>
<tr>
<td>o = female speaking</td>
<td>o = female speaking</td>
</tr>
<tr>
<td>B = brother</td>
<td>B = brother</td>
</tr>
<tr>
<td>Z = sister</td>
<td>Z = sister</td>
</tr>
<tr>
<td>e = elder</td>
<td>e = elder</td>
</tr>
<tr>
<td>y = younger</td>
<td>y = younger</td>
</tr>
</tbody>
</table>
Humans Prefer Conjunctive Definitions

A simple taxonomy

Classical Feature model method

Simple Paradigms

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

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Which is most different?

Father  Mother  Son

Which is most different?

Father  Mother  Daughter

Which is most different?

Father  Son  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></th>
<th>Father</th>
<th>(0)</th>
<th>Mother</th>
<th>(0)</th>
<th>Son</th>
<th>(0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Father</td>
<td>(0)</td>
<td>Mother</td>
<td>(0)</td>
<td>Son</td>
<td>(0)</td>
</tr>
<tr>
<td>2</td>
<td>Father</td>
<td>(3)</td>
<td>Son</td>
<td>(0)</td>
<td>Daughter</td>
<td>(0)</td>
</tr>
<tr>
<td>3</td>
<td>Father</td>
<td>(0)</td>
<td>Mother</td>
<td>(0)</td>
<td>Son</td>
<td>(0)</td>
</tr>
<tr>
<td>4</td>
<td>Mother</td>
<td>(0)</td>
<td>Son</td>
<td>(0)</td>
<td>Daughter</td>
<td>(0)</td>
</tr>
</tbody>
</table>

*Numbers in parentheses indicate the number of times a term was selected as most different in meaning from the other two terms by six respondents.

Figure 3.11. Pairings of selected kin terms. Fragments represent mean number of times terms were clased together.

English Kinship Paradigm

A 3-D solution to the American kinship paradigm

Figure 2.9 Feature analysis of English kin terms

Figure 3.11. Diagrammatic representation of Romney feature analysis of English kin terms. Connecting lines indicate terms paired together with high frequency. Numbers present mean frequency of pairings.
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 $\rightarrow$ similarity metric $\rightarrow$ 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.”