Documenting ethnobotanical knowledge among Gújjolaay Eegimaa speakers

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The ESRC & ELDP are gratefully acknowledged
Background

• Part of ethnobiological research includes investigating:
  – How entities like plants, the focus of this presentation, are used
  – How they are classified/categorized by examining their names.
• A good justification for the examination of e.g. plant names is Berlin’s (1992: 26-27) claim that:
  ‘salient morphological and behavioral features of plant and animal species are often encoded directly in the ethnobiological names used to refer to these species.’
Background (cont.)

• In Language documentation (e.g. Himmelmann 1998, Gippert et al. 2006) much of the focus is on producing (and archiving) material that can be used by specialists from other disciplines

• In both areas, emphasis is laid on collaborative research to provide the best account of the phenomena researched
The goals of this presentation are to:

- Briefly discuss techniques used to document ethnobotanical knowledge among Eegimaa speakers.
- Examine the classification of plant names in the Eegimaa gender/noun class system.
- Show that plants are not assigned to classes based on taxonomic criteria
  - But more following principles e.g. perceptual similarities; economic significance as argued in the literature (e.g. Berlin 1992)
Eegimaa
ETHNOBOTANICAL DOCUMENTATION
Some assumptions

• Language Documentation seeks to capture the theoretical and practical knowledge (individual & collective) and experience of a people about e.g., their plants and animals.

• That is, how they ‘conceive of and think about the objects and events which make up their world – including everything from physical objects like wild plants to abstract events like social justice’ (D’andrade 1995: 1).
Data collection methods

Fieldwork manuals
- Linguistic fieldwork manuals do not usually discuss ethnobiological research
- Useful source: Bouquiaux and Thomas (1987)

Introspection
- I am native speaker of Eegimaa
- Early exposure to plants through cattle minding & agriculture

Collaboration with a native speaker botanist
- Reinforcement of native speaker judgment
- Collection of popular & scientific names
- Production of orthography for collaborative use

Participant observation
- Witnessing many instances of plant use for different purposes
- Attending traditional trials about ownership of trees of great importance

Elicitation: woodworkers & healers
- Eegimaa healers are very secretive (see Diatta et. al 2009)
- Elicitation onsite
Information to collect

• Vernacular and scientific names of plants and the meanings of those names
• A description of - their physical characteristics, their habitat and their relationships with other plants
• Whether they are grown, owned or are wild
• Uses: consumption - medical purposes - religious rituals - making artefacts - literature e.g. folktales or proverbs.
• How their parts are harvested, preserved and processed for use
## Class distribution: 128 plants vs. 101 birds

<table>
<thead>
<tr>
<th>CL pair</th>
<th>Plants</th>
<th>Birds</th>
<th>Noun class semantics - generalisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>bu- (u-)</td>
<td>87</td>
<td>0</td>
<td>Assemblages; augmentative (enormous size)</td>
</tr>
<tr>
<td>ga- (u-)</td>
<td>22 (e-)</td>
<td>33</td>
<td>Flat; big size; augmentative; derogatory</td>
</tr>
<tr>
<td>fu- (gu-)</td>
<td>8</td>
<td>16</td>
<td>Round entities</td>
</tr>
<tr>
<td>e- (su-)</td>
<td>5</td>
<td>22</td>
<td>Default class, semantically unspecified</td>
</tr>
<tr>
<td>ñu- (u-)</td>
<td>3</td>
<td>0</td>
<td>Economy and social organisation</td>
</tr>
<tr>
<td>ju- (mu-)</td>
<td>3</td>
<td>30</td>
<td>Small things &amp; diminutive</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>128</strong></td>
<td><strong>101</strong></td>
<td></td>
</tr>
</tbody>
</table>

17 of 22 use e- to form collective meaning
PLANT CLASSIFICATION
## Taxonomic hierarchies *(Berlin 1992)*

<table>
<thead>
<tr>
<th>Taxonomy hierarchy</th>
<th>Example</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Unique beginner</td>
<td>plant</td>
<td>Most inclusive level; does not always have a label.</td>
</tr>
<tr>
<td>2 Life-form</td>
<td>bush</td>
<td>‘Stem habit’; Very few in number - 10 to 15.</td>
</tr>
<tr>
<td>4 Generic</td>
<td>rose</td>
<td>‘Most salient for native speakers’; learned earlier; easily elicited; up to 500 items; generally monotypic; simple lexemes <em>(Foley 1997: 116).</em></td>
</tr>
<tr>
<td>5 specific</td>
<td>hybrid tea</td>
<td>Existence culturally motivated – binomial.</td>
</tr>
</tbody>
</table>
Taxonomic hierarchy

- nunuh ‘plant’
  - bu-nunuh
    - bu-mang ‘Mango tree’
    - nu-vvul ‘Borassus tree’
  - ga-nunuh
    - bu-/ga-nunuh
      - ga-gabal ‘water lily’
    - ga-fos ‘grass’
  - ju-nunuh
    - ga-mmano ‘rice plant’
  - bu-saralioŋ ‘kind of mango tree’
  - bi-kket ‘keitt mango tree’
Plants in the generic taxon

- No one-to-one match between taxonomic rank and noun class
- Most plants still assigned to class **bu-**/

![Distribution of plant names in the generic taxonomic rank](chart.png)
PLANT CATEGORIZATION
Principles of categorization

• Conceptual categorization of plants may based on:
  – ‘people’s cognitive assessments of the gross perceptual resemblances observed among classes and organisms’
  – Secondarily, ‘economic significance or cultural evaluation’ (Berlin 1992: 21)

• The claims are also supported by research in cognitive categorization (see Rosch 1978; Lakoff 1987, Taylor 2003)
Examples with class **bu-**

<table>
<thead>
<tr>
<th>bu-bah (u-)</th>
<th>‘baobab tree’</th>
</tr>
</thead>
<tbody>
<tr>
<td>bu-ssana (u-)</td>
<td>‘silk cotton tree’</td>
</tr>
<tr>
<td>bi-tel (u-)</td>
<td>‘Sida rhombifolia’ (small plant)</td>
</tr>
<tr>
<td>bú-kkaju (u-)</td>
<td>‘cashew tree’</td>
</tr>
<tr>
<td>bi-peleēŋ (u-)</td>
<td>‘Newbouldia laevis’ (small plant)</td>
</tr>
<tr>
<td>bu-ñoññokkoy (u-)</td>
<td>‘kind of grass’</td>
</tr>
</tbody>
</table>
Plants in class **bu-**

- The class of trees in previous works (e.g. Sapir 1965)
  - Loanwords in this class are trees
- The class of ‘enormous entities’, purposeful ‘assemblages’ etc. (cf. Sagna 2008, 2012)
- Smaller plants in this class are generally used for medical or other utilitarian purposes
- They differ from plants in e.g., class **ga-** which mainly include grass (generally unimportant).
## Grass in CL ga-; CL e-

<table>
<thead>
<tr>
<th>Singular (Plural)</th>
<th>Collective for colonies</th>
</tr>
</thead>
<tbody>
<tr>
<td>ga-rarah (u-)</td>
<td>e-rarah</td>
</tr>
<tr>
<td>‘Ipomea asarifolia’</td>
<td>‘colony of ipomea asarifolia’</td>
</tr>
<tr>
<td>gá-gabal (ú-)</td>
<td>e-gabal</td>
</tr>
<tr>
<td>‘Water lily plant (-s)’</td>
<td>‘colony of water lily plant’</td>
</tr>
<tr>
<td>ga-mmano (u-)</td>
<td>e-mmano</td>
</tr>
<tr>
<td>‘Rice plant (-s)’</td>
<td>‘rice (plantation)’</td>
</tr>
<tr>
<td>ga-lallañ (u-)</td>
<td>e-lallañ</td>
</tr>
<tr>
<td>‘kind of grass’</td>
<td>‘colony of that kind of grass’</td>
</tr>
<tr>
<td>ga-ssel (u-)</td>
<td>e-ssel</td>
</tr>
<tr>
<td>‘kind of grass’</td>
<td>‘colony of that kind of plant’</td>
</tr>
</tbody>
</table>
Grass in CL ga- & Coll in CL e-

- Mostly herbaceous but also plants that are cultivated by humans
- Only grass that grow as a colony use CL e- as a collective marker
  - also express human collectivities e.g. identity groups, professions, geographical and ethnic origin…
- Plants are categorized as a conceptual unit/collective based on their perceived behavioural properties.
Culturally significant plants in CL ñũ-

- Only two trees – palm trees
  - ñí-it ‘palm oil tree’
  - ñu-vvul ‘Borassus tree’
- There are rules of ownership
- These trees are the most exploited trees by the Eegimaa speakers:
- The class is called the class of ‘economy and social organisation’ (Tendeng 2007 & Sagna 2008)
Culturally significant plants in CL ñu-

• From the ‘Borassus palm tree’ we obtain:
  – the best wood to build roof structures
  – the leaves are used to make almost all baskets, hats, umbrellas etc.
  – the fruits are eaten
  – etc.

• From the palm tree we obtain:
  – palm wine (social and religious function)
  – the rachis are used to build fences
  – blades used to make brooms
  – trunk carved to build the structure of houses
  – Etc.

• Are owned, and often the reason for serious disputes in the community

• They have a special status in society and thus differ from those in classes 5bu- or 9 ga-.
Summary

**bu-** plants: mainly trees
Default class for trees (largest)
Most used plants e.g. medical use.

**ga-** plants: herbaceous & medium size plants
Colonies of plants - collectives with e-

**ñu-** trees: high cultural/economic significance
Summary (cont.)

• Taxonomic classification does not account for the assignment of plant names into different noun classes in a language like Eegimaa.

• In the Eegimaa noun class system plants are classified partly based on culture-bound principles which do not necessarily mirror Berlin’s (1992) universal taxonomic relationships.

• i.e. There is no one-to-one correlation between class-membership and membership to a taxonomic rank.
  – e.g. the generic level includes nouns from different grammatical classes.
References