A geographic explanation for the usage of spatial orientation terms in Halmahera, Indonesia

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or: “Which way is up?”
- **Austronesian**
  - Buli (bzq)
  - Maba (mqq)
  - Patani (ptn)
  - Sawai (szw)
  - Gane (gzn)
  - Taba / E Makian (mky)
  - North Maluku Malay (max)
- **Papuan**
  - Ternate (tft)
  - Tidore (tvo)
  - Moi / W Makian (mqs)
  - Sahu (ibu)
  - Tobelo (tlb)

*Northeast Halmaheran*
Overview

• Background
• Survey of orientation in Halmahera
• Conventionalized uses of orientation
• Explanations for the UP-DOWN orientation
Background

• All Halmahera languages make use of absolute system of orientation with orthogonal axes
  – UP-DOWN
  – SEA-LAND

• This system is the default way of describing location at local, intermediate and larger scales
Different from Oceanic

• Oceanic contrasts and SEA-LAND axis with a “cardinal” axis which is insensitive to local topography and remains essentially fixed.

• In Halmahera both the SEA-LAND and the UP-DOWN axes are sensitive to local topography; neither remain fixed.

"Cardinal" axis may vary

Balinese (Adelaar 1997)
“Cardinal” axis may vary

Balinese (Adelaar 1997)
West Coast North America
California Coast
Previous observations

• “The distinctive treatment of spatial deixis in North Moluccan Malay is one of the most initially striking features of the dialect” (Taylor 1983)
• The directional system is “one of the most puzzling aspects” of the Taban language for a learner (Bowden 1997)
• “The only time it seems that the word left and right get used ... is when referring to body parts.” (Allen and Hayami-Allen 2002)
• “Instead of using left-right or north-east-south-west ... uses four Absolute reference points.” (Hayami-Allen 2001)
• “Persons and objects are localized with terms that bear no relation at all with our north, south, east and west.” (Teljeur 1987)
# Halmahera directionals

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
<th>UP</th>
<th>DOWN</th>
<th>SEA</th>
<th>LAND</th>
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<tr>
<td><strong>Austronesian</strong></td>
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<td>atas</td>
<td>bawa</td>
<td>lao</td>
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<td><strong>Papuan</strong></td>
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<td>tvo</td>
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<td>tau</td>
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<td>nei</td>
<td>naso</td>
<td>nau</td>
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<tr>
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<td>da’u</td>
<td>dau</td>
<td>dai</td>
<td>dine</td>
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<td>Tobelo (NeH)</td>
<td>tlb</td>
<td>daku</td>
<td>dau</td>
<td>dai</td>
<td>dina</td>
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# Tobelo directionals

<table>
<thead>
<tr>
<th></th>
<th>UP</th>
<th>DOWN</th>
<th>SEA</th>
<th>LAND</th>
</tr>
</thead>
<tbody>
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<td><strong>adverb</strong></td>
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<td>dai</td>
<td>dina</td>
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<tr>
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<td>daena</td>
<td>danena</td>
<td>dinena</td>
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<tr>
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<td>--</td>
<td>danáa</td>
<td>dináa</td>
</tr>
<tr>
<td><strong>suffix</strong></td>
<td>-ilye</td>
<td>-úku</td>
<td>-óko</td>
<td>-iha</td>
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</tbody>
</table>

A conceptual framework which is realized across many aspects of grammar, i.e., a SEMPLATE (Burenhult and Levinson 2008)
Survey of orientation in Halmahera

- Ternate, Tidore, Makian
- Northwest Coast of Halmahera
- Kao Bay
- Morotai Island
- Buli Bay
- Southeastern Peninsula
- Weda Bay
- Southern Peninsula
Ternate, Tidore, Makian
Northwest Coast of Halmahera
Kao Bay
Morotai Island
Buli Bay
Southeastern Peninsula
Weda Bay
Southern Peninsula
Southern Peninsula

Teljeur 1987
Southern Peninsula

Figure 3. Orientation in the village of Pulilo
Scale about 1 : 10000.

Teljeur 1987
Which way is UP?
Conventionalized uses

• within a house
• on a boat
• elongated objects
• prominent locations
• cardinal directions
Orientation in the house

• Standard way of talking about locations indoors
  – Sahu (NH) (Visser & Voorhoeve 1987)
  – no-tegor dina toma wala
    2sg-sit LAND in house
    ‘you sit over there on the landward side in the house’

• Conventionalized (‘canonical’) usages
  – Tobelo (NH) (Holton 2003)
  – o-tau wo-wohama-iha
    NM-house 3m-enter-LAND
    ‘he entered the house landward’
Prominent locations

- Standard way of talking about locations indoors
  - Moi (NH) (Allen and Hayami-Allen 2002)
  - t-i-nao to wom
    1sg-v-sea loc sand
    ‘I am going to the bathroom’ (lit. ‘I am going seaward to the sand’)

Cardinal directions

Moi

Tobelo

Weda
Social centers?

- Bowden: UP=center
  - Mailoa as a local center
  - Ternate as a larger center
Beyond Halmahera

- Biak
- Maybrat
  - t-am to-u
  - 1s-go loc-UP
  - ‘I go in the direction where the sun rises.’
- Irarutu
  - elevation based system
Which way is UP?

• Types of explanations
  – Oceanographic
    • UP = against the current
  – Historical
    • speakers bring orientation systems with them when they migrate
  – Social
    • UP = ‘social center’
  – Riverine
    • UP = ‘upstream’
Problems with the social explanation

• Social relations are in flux, yet orientation systems presumably much older
• Assumes that directions are established by fiat upon settlement, without regard to existing convention
• Not consistently applied: Mailoa is LAND (not DOWN) for Taba speakers on Kayoa
• Why should UP = center?
  – Bowden (1997) emphasizes “importance of the concept of DOWN and its wider implications”
  – Teljeur (1987) expresses surprise that the Gane do not refer to the direction toward Ternate as UP, given the political importance of Ternate
• Unconstrained
Riverine explanation

Distribution of Forest Tobelo in Northeast Halmahera ca. 1975 (Duncan 1996)
Differs greatly from WMP

• In Borneo the SEA-LAND axis is realigned with the downiver-upriver direction
  – “If a language has reflexes of the original terms *laSud and *Daya, these have the meaning, respectively, of 'downstream area' and 'upstream area', rather than 'towards the sea' and 'towards the interior’.” (Adelaar 1997:69).

• In Halmahera it is the UP-DOWN axis which is aligned with the direction of river flow.

• If the coastal use of the UP-DOWN axis predates the riverine use, then it is difficult to explain why it is that this axis was aligned with the river, rather than the SEA-LAND axis as in Borneo.

• A more economical—and at least equally plausible—explanation is that the riverine use of the UP-DOWN axis predates the coastal use.
Prehistory

• Halmahera itself has been continuously occupied by humans for at least 30k yrs (though only in the last 15k yrs do we begin to find evidence of a broader economy with anthropogenic transport of plants and animals)

• Increase in palm pollen 6,000 BP may be evidence of an early intensification of sago cultivation (Bellwood 2007:234)

• Whether or not the Forest Tobelo also predate the arrival of the ancestors of the current NH speakers is not known, but it is clear that Papuan speakers arrived prior to the Austronesians (Bellwood 2007)

• Forest Tobelo are descents of a broader hunter-gatherer society which existed on Halmahera prior to the Austronesian settlement

• Oral history supports a past migration to the coast and subsequent cultural adaptations to a maritime environment (Hueting 1921)
Every day of their lives they are in contact with the river. The river has become a very important resource for today and the future.

The people of Rai Tukur Tukur have been making use of Ake Dodaga (river) since their ancestors lived in the region.

Aman Maluku Utaru
http://amanmalut.or.id/togutil-bergantung-hidup-dari-sungai/
Riverine orientation
UP
=
‘upstream’,
‘into the bay’
Selected References


