SHWNG Noun Phrases, and How They Got That Way

Emily Gasser
Swarthmore College
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bit.ly/2wQTAKE
SHWNG NPs

- Noun-Adj-Det-Quantifier word order is rare
- Wamesa, Dusner, & Warembori have it
- Three sources:
  - Wamesa: reanalysis of number agreement
  - Dusner: contact with Wamesa
  - Warembori: ???
W. Papua

[Map of Western Papua with language families indicated: SHWNG, Other Austronesian, Non-Austronesian/uninhabited]
NADQ languages

Language Families
- SHWNG
- Other Austronesian
- Non-Austronesian/uninhabited
Greenberg (1966), Universal 20:

- “When any or all of the items (Demonstrative, numeral [Q], and descriptive Adjective) precede the Noun, they are always found in that order. If they follow, the order is either the same or its exact opposite.”
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→ ✓DQAN
   ✓NDQA
   ✓NAQD
Greenberg (1966), Universal 20:

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\[\rightarrow \checkmark \text{DQAN} \]
\[\checkmark \text{NDQA} \]
\[\checkmark \text{NAQD} \]

\[\rightarrow \text{*NADQ} \]
How rare is NADQ really?

- Cinque (2005): 9-10/400-ish langs (2.5%)
- Dryer (2018): 36/576 langs (6.25%)
- Cinque (n.d.): 105/1687 langs (6.22%) across 30+ genera; rank 7/24
  - (as of May 2019)
How rare is NADQ really?

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  - (as of May 2019)

- NAQD: 539/1687 (32%, rank 1/24)
- DQAN: 367/1687 (21.8%; rank 2/24)
- NDQA: 74/1687 (4.4%; rank 11/24)
The Wamesa NP

(1)    N       A        D        Q
anggadi  pimasa  pa      toru
coconut   big      DET   three
‘the three big coconuts’

(Gasser 2014: 177)
The Dusner NP

(2) N A D –
nap=a romansar ya
dog=Fill big det.3sg
‘the big dog’

(3) N – D Q
manvetatu ya nuru
bird.of.paradise det.3sg two
‘[the] two birds of paradise’

(Dalrymple & Mofu 2012: 11, 24)
The Warembori NP

(4) \[ \text{N} - \text{A} - \text{D} - \]
\[ nu -pa -ni \]
man big. ATTR this
‘the big man’

(5) \[ \text{N} - \text{D} - \text{Q} \]
\[ mani -yave wonti \]
bird DEF three
‘the three birds’

(Donohue 1999: 23, 25)
Elsewhere in SHWNG

NAQD

- Wooi, Ambai, Pom, Biak, Waropen, Matbat, Ambel, Ma’ya, Taba, Sawai, (Irarutu)...
- Likely reconstructable to Proto-SHWNG
Elsewhere in SHWNG

NAQD

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NQAD

- Roon (??)
NADQ
NAQD
NQAD(?)

Kamholz (2014), Gasser (under review, in progress)
Ambai: NAQD

(6)  N A Q D

wara keka  damirai  bo-ru  fo
hand digit  painful  INAN-two  DET

‘his two sore fingers’

(Silzer 1983: 212)
Ambai: N A Q D-AGR.NUM

(7) wanancha fuba fo-i
wind big DET-SG
‘the big wind’

(8) wiwin fo-suru
woman DET-DUAL
‘the two women’

(9) inontarai fo-coru
person DET-TRIAL
‘the three people’

(10) arikan itu fo-sa
child seven DET-PL
‘the seven children’

(Silzer 1983: 63, 100, 113)
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cf  ru ‘two’;  toru ‘three’

(Silzer 1983: 63, 100, 113)
Ambai: N A Q D-AGR.NUM

(7) *wanan fuba* fo-*i*
  wind big DET-SG
  ‘the big wind’

(8) *wiwin fo-suru*
  woman DET-DUAL
  ‘the two women’

(9) *inontarai fo-coru*
  person DET-TRIAL
  ‘the three people’

(10) *arikan itu fo-sa*
  child seven DET-PL
  ‘the seven children’
Ambai dual/trial: Q or AGR.NUM

(11) a. wiwin φ fo-suru
woman DET-DUAL
‘the two women’

b. munu fuba bo-ru fo-φ
house big INAN-two DET
‘the two big houses’

(12) a. inontarai φ fo-coru
person DET-TRIAL
‘the three people’

b. ankadi bo-toru fo-φ
coconut INAN-three DET
‘the three coconuts’

(Silzer 1983: 79, 92, 100)
Pre-Wamesa as Ambai-like

\[
\begin{align*}
\text{N} & \quad \text{A} & \quad \text{Q} & \quad \text{D-AGR.NUM} \\
* \text{sinitu} & \quad \text{baba} & \quad & \text{pa-coru} \\
\text{person} & \quad \text{big} & \quad & \text{DET-TRIAL}
\end{align*}
\]

\[
\begin{align*}
\text{N} & \quad \text{A} & \quad \text{D} & \quad \text{Q} \\
\text{sinitu} & \quad \text{baba} & \quad \text{pa} & \quad \text{toru} \\
\text{person} & \quad \text{big} & \quad \text{DET} & \quad \text{three}
\end{align*}
\]

‘the three big people’
Wamesa number marking

(13)  \textit{anggadi} = \textbf{pa-i}
\text{coconut} = \text{DET-SG}
‘the coconut’

(14)  \textit{anggadi} = \textbf{pa-si}
\text{coconut} = \text{DET-PL}
‘the coconuts’

(15)  \textit{anggadi} = \textbf{pa} \quad \textit{toru}
\text{coconut} = \text{DET three}
‘the three coconuts’
NAQD-agr.num → NADQ

1. AGR.NUM reinterpreted as Q:
   \[ N \ A \ Q \ D-agr.num \rightarrow N \ A \ _ \ D-\emptyset \ Q \]
NAQD-agr.num → NADQ

1. AGR.NUM reinterpreted as Q:

\[ \text{N A Q D-AGR.NUM} \rightarrow \text{N A } D-\emptyset \ Q \]

2. Generalization from 2/3 to all numerals:

\[ \text{*sinitu baba rime pa-si} \]

\[ \text{person big five DET-PL} \]

\[ \text{sinitu baba pa-∅ rime} \]

\[ \text{person big DET five} \]

‘the five big people’
What about Dusner?
What about Dusner?

Borrowed from Wamesa.

- Development from AGR.NUM not available
- Pervasive bilingualism
- Evidence for lexical & grammatical borrowing elsewhere.
Dusner determiners

Number agreement uses prefixes:

<table>
<thead>
<tr>
<th></th>
<th>PROX</th>
<th>DIST</th>
<th>POSTDIST</th>
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<tbody>
<tr>
<td>SG</td>
<td>i-ne</td>
<td>i-ya</td>
<td>i-wa</td>
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<tr>
<td>DU</td>
<td>su-ne</td>
<td>su-ya</td>
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<tr>
<td>PL</td>
<td>si-ne</td>
<td>si-ya</td>
<td>si-wa</td>
</tr>
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<td>PL.NONHUM</td>
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(Dalrymple & Mofu 2012: 13, 21)
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**Numerals:** *yoser* ‘one’; *nuru* ‘two’; *tori* ‘three’

Reanalysis unlikely.

(Dalrymple & Mofu 2012: 13, 21)
Dusner contact with Wamesa
Dusner contact with Wamesa
Dusner borrowing from Wamesa

Lexicon:

<table>
<thead>
<tr>
<th></th>
<th>Wamesa</th>
<th>Dusner</th>
<th>Biak</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘only’</td>
<td>venasia</td>
<td>vanas</td>
<td>mónda, bakn</td>
</tr>
<tr>
<td>‘to pound (sago)’</td>
<td>tara</td>
<td>tar</td>
<td>nuk</td>
</tr>
<tr>
<td>‘many’</td>
<td>pau</td>
<td>pau</td>
<td>bór</td>
</tr>
</tbody>
</table>

Number systems:

Wamesa & Dusner: quinary-decimal (innovated)
Biak: decimal (inherited)

(van den Heuvel 2006)
What about Warembori?
What about Warembori?

Answer TBA

- (Maybe a similar path to Wamesa agreement reinterpretation??)
  - (Is this a common path of NADQ development more broadly???)
Takeaways:

NADQ word order:
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**NADQ word order:**
- is cross-linguistically uncommon;
  - ~6% of languages
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- arose via reinterpretation of number agreement markers;
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- appears independently in three SHWNG languages;
  - Wamesa, Dusner, Warembori
- arose via reinterpretation of number agreement markers;
  - Wamesa (& Warembori??)
- can be borrowed.
  - Wamesa → Dusner
NADQ word order:

- is cross-linguistically uncommon;
- appears in three SHWNG languages;
- arose from number agreement;
- can be borrowed.

Thanks!
Terima kasih!
## Word order by prevalence (Cinque n.d.)

Top 5 orders = 91% of languages (NB: some langs have multiple orders)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Order</th>
<th>#</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>NAQD</td>
<td>539</td>
<td>31.95%</td>
<td>13</td>
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<td>43</td>
<td>2.55%</td>
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<tr>
<td>2</td>
<td>DQAN</td>
<td>367</td>
<td>21.75%</td>
<td>14</td>
<td>ANDQ</td>
<td>25</td>
<td>1.48%</td>
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<tr>
<td>3</td>
<td>QNAD</td>
<td>243</td>
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<td>DAQN</td>
<td>7</td>
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<tr>
<td>4</td>
<td>DQNA</td>
<td>194</td>
<td>11.50%</td>
<td>16</td>
<td>NQDA</td>
<td>6</td>
<td>0.36%</td>
</tr>
<tr>
<td>5</td>
<td>DNAQ</td>
<td>187</td>
<td>11.08%</td>
<td>16</td>
<td>ADQN</td>
<td>6</td>
<td>0.36%</td>
</tr>
<tr>
<td>6</td>
<td>NQAD</td>
<td>123</td>
<td>7.29%</td>
<td>18</td>
<td>QNDA</td>
<td>4</td>
<td>0.24%</td>
</tr>
<tr>
<td>7</td>
<td>NADQ</td>
<td>105</td>
<td>6.22%</td>
<td>19</td>
<td>AQND</td>
<td>2</td>
<td>0.12%</td>
</tr>
<tr>
<td>8</td>
<td>DNQA</td>
<td>79</td>
<td>4.68%</td>
<td>20</td>
<td>QDAN</td>
<td>1</td>
<td>0.06%</td>
</tr>
<tr>
<td>8</td>
<td>DANQ</td>
<td>79</td>
<td>4.68%</td>
<td>20</td>
<td>QDNA</td>
<td>1</td>
<td>0.06%</td>
</tr>
<tr>
<td>10</td>
<td>QAND</td>
<td>78</td>
<td>4.62%</td>
<td>20</td>
<td>ADNQ</td>
<td>1</td>
<td>0.06%</td>
</tr>
<tr>
<td>11</td>
<td>NDQA</td>
<td>74</td>
<td>4.39%</td>
<td>23</td>
<td>QADN</td>
<td>0</td>
<td>0.00%</td>
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<tr>
<td>12</td>
<td>ANQD</td>
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<td>2.67%</td>
<td>23</td>
<td>AQDN</td>
<td>0</td>
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</tr>
</tbody>
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Nearby Papuan NPs

- Mairasi: NDA
- Meyah: NAQD
- Sougb: NAQD
- Mansim: NAQ, NAD
- Moi: NA(clf)QD

Reesink (2002: 246): “Like all other languages of the Bird’s Head, Sougb has the basic word order: Noun + Adjective + Numeral + Determiner [NAQD] in the noun phrase”