A photograph of a tropical island. In the foreground, there's a sandy beach meeting a bright blue ocean. On the right side, several traditional wooden stilt houses with corrugated roofs are built on stilts over the water. Behind them is a dense forest of tall palm trees and lush green foliage covering the hillside. The sky is a clear, vibrant blue with a few wispy white clouds.

SHWNG Noun Phrases, and How They Got That Way

Emily Gasser

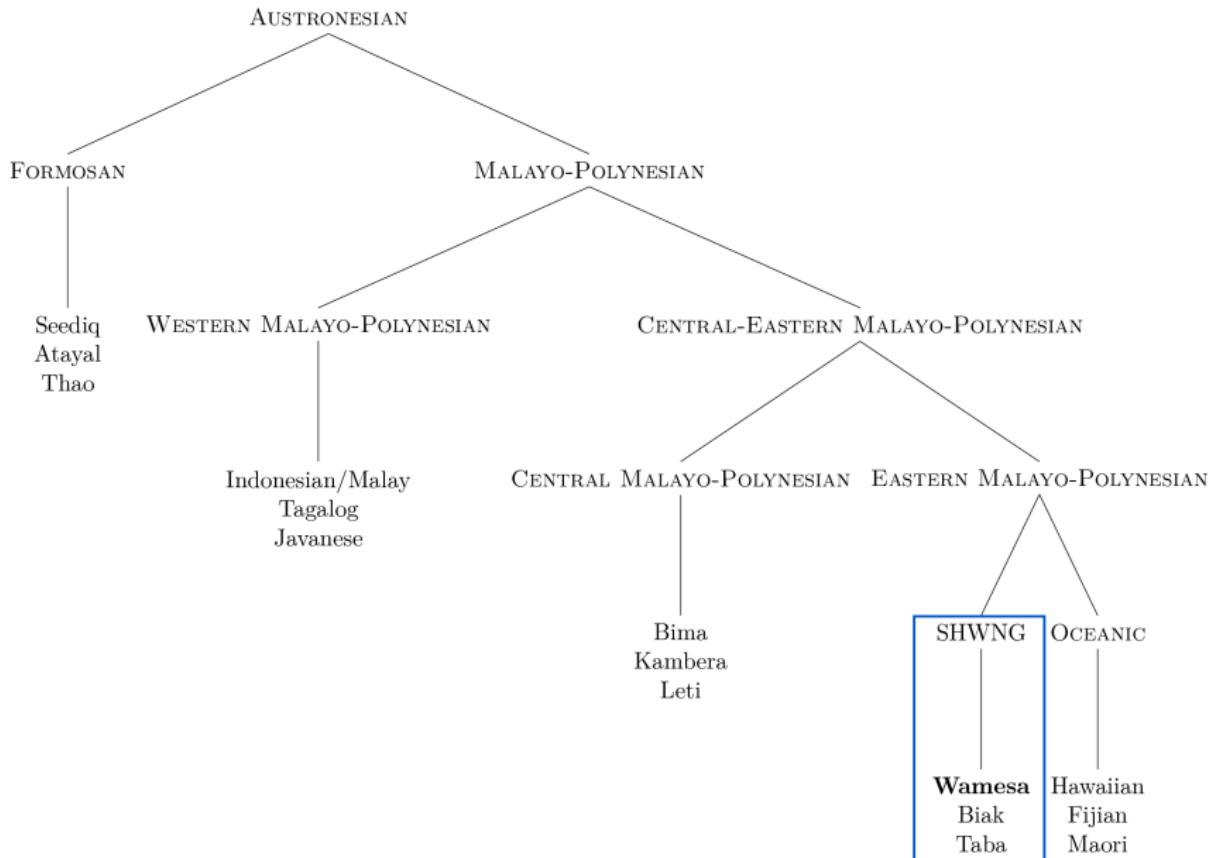
Swarthmore College

APLL11, July 13, 2019

bit.ly/2wQTAKE

SHWNG NPs

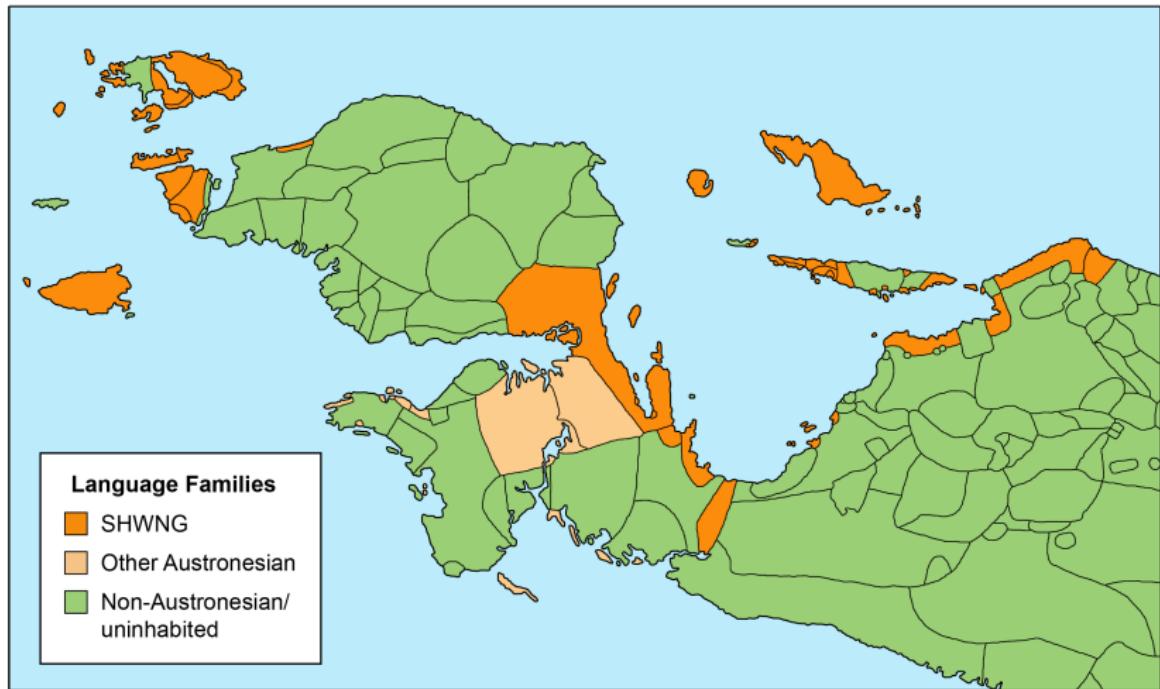
- ▶ Noun-Adj-Det-Quantifier word order is rare
- ▶ Wamesa, Dusner, & Warembori have it
- ▶ Three sources:
 - ▶ Wamesa: reanalysis of number agreement
 - ▶ Dusner: contact with Wamesa
 - ▶ Warembori: ???



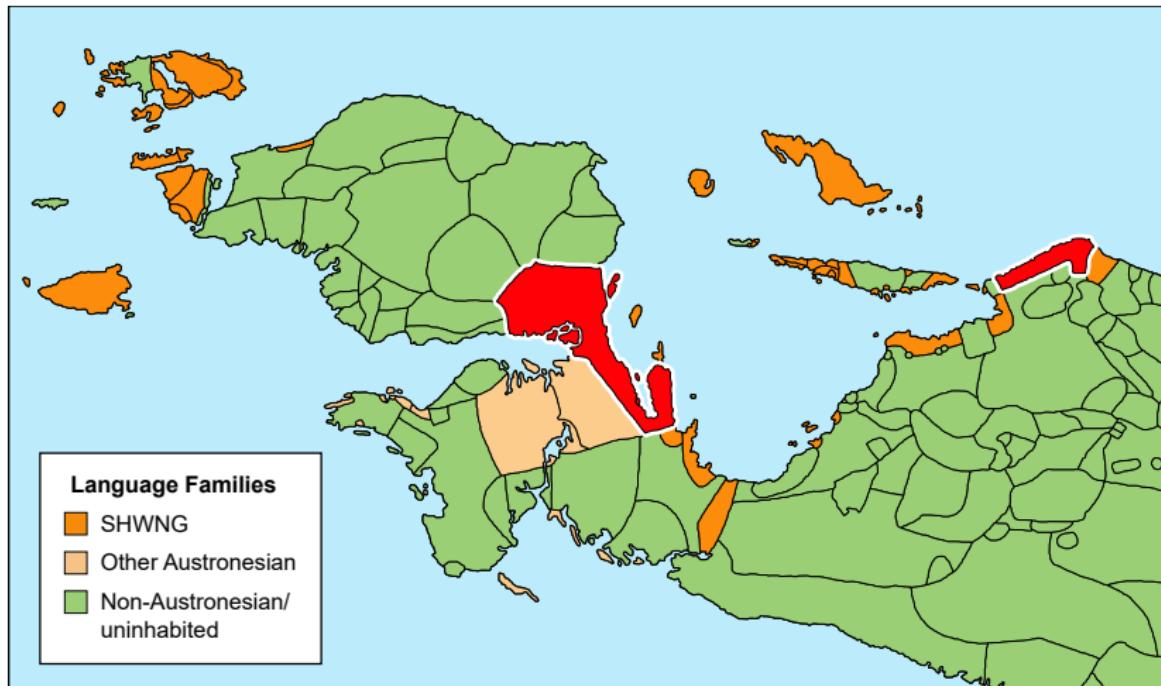


Map data ©2018 GBRMPA, Google, ZENRIN United States

W. Papua



NADQ languages



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

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→ ✓DQAN

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✓NAQD

→ *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)

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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
	<i>anggadi</i>	<i>pimasa</i>	<i>pa</i>	<i>toru</i>
	coconut	big	DET	three
‘the three big coconuts’				

(Gasser 2014: 177)

The Dusner NP

(2)	N	A	D	—
	<i>nap=a</i>	<i>romansar</i>	<i>ya</i>	
	dog=FILL	big	DET.3SG	
		‘the big dog’		

(3)	N	—	D	Q
	<i>manvetatu</i>		<i>ya</i>	<i>nuru</i>
	bird.of.paradise		DET.3SG	two
		‘[the] two birds of paradise’		

(Dalrymple & Mofu 2012: 11, 24)

The Warembori NP

(4)	N	A	D	—
	<i>nu</i>	<i>-pa</i>	<i>-ni</i>	
	man	big.	ATTR	this
				‘the big man’

(5)	N	—	D	Q
	<i>mani</i>		<i>-yave</i>	<i>wonti</i>
	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

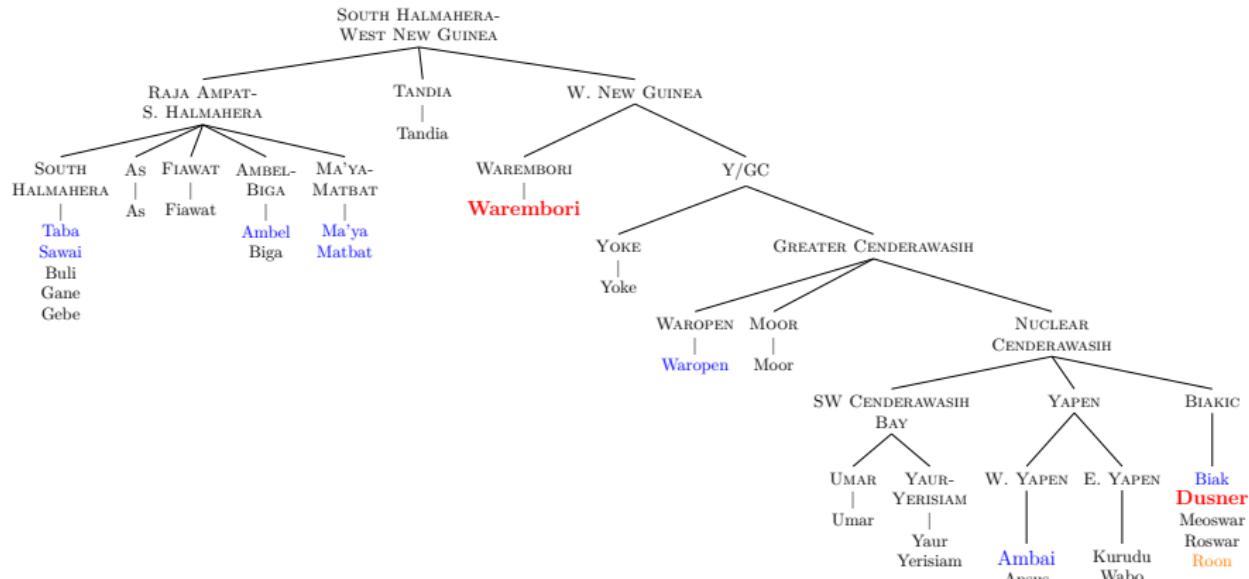
NAQD

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NQAD

- ▶ Roon (??)

SHWNG



NADQ
NAQD
NQAD(?)

Ambai: NAQD

(6)	N	A	Q	D
	<i>wara keka</i>	<i>damirai</i>	<i>bo-ru</i>	<i>fo</i>
	hand digit	painful	INAN-two	DET
	'his two sore fingers'			

(Silzer 1983: 212)

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) *arianan itu fo-sa*
child seven DET-PL
'the seven children'

(Silzer 1983: 63, 100, 113)

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cf *ru* 'two'; *toru* 'three'

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Ambai dual/trial: Q or AGR.NUM

- (11) a. *wiwin* \emptyset *fo-suru*
woman DET-DUAL
'the two women'
- b. *munu fuba* ***bo-ru*** *fo-* \emptyset
house big INAN-two DET
'the two big houses'
- (12) a. *inontarai* \emptyset *fo-coru*
person DET-TRIAL
'the three people'
- b. *ankadi* ***bo-toru*** *fo-* \emptyset
coconut INAN-three DET
'the three coconuts'

(Silzer 1983: 79, 92, 100)

Pre-Wamesa as Ambai-like

N	A	Q	D-AGR.NUM
* <i>sinitu</i>	<i>baba</i>		<i>pa-coru</i>
person	big		DET-TRIAL



N	A	D	Q
<i>sinitu</i>	<i>baba</i>	<i>pa</i>	<i>toru</i>
person	big	DET	three
‘the three big people’			

Wamesa number marking

- (13) *anggadi=pa-i*
coconut=DET-SG
'the coconut'
- (14) *anggadi=pa-si*
coconut=DET-PL
'the coconuts'
- (15) *anggadi=pa toru*
coconut=DET three
'the three coconuts'

NAQD-AGR.NUM → NADQ

1. AGR.NUM reinterpreted as Q:

$$N \ A \ Q \ D\text{-AGR}.\underset{\square}{NUM} \rightarrow N \ A \ _\square D\text{-}\emptyset \ Q$$

NAQD-AGR.NUM → NADQ

- AGR.NUM reinterpreted as Q:

N A Q D-AGR.NUM → N A _ D-∅ Q

- Generalization from 2/3 to all numerals:

**sinitu baba rime pa-si*
person big five DET-PL

→*sinitu baba pa-∅ rime*
person big DET five

‘the five big people’

Dusner

What about Dusner?

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:

	PROX	DIST	POSTDIST
SG	i-ne	i-ya	i-wa
DU	su-ne	su-ya	su-wa
PL	si-ne	si-ya	si-wa
PL.NONHUM	na-ne	na-ya	na-wa

(Dalrymple & Mofu 2012: 13, 21)

Dusner determiners

Number agreement uses prefixes:

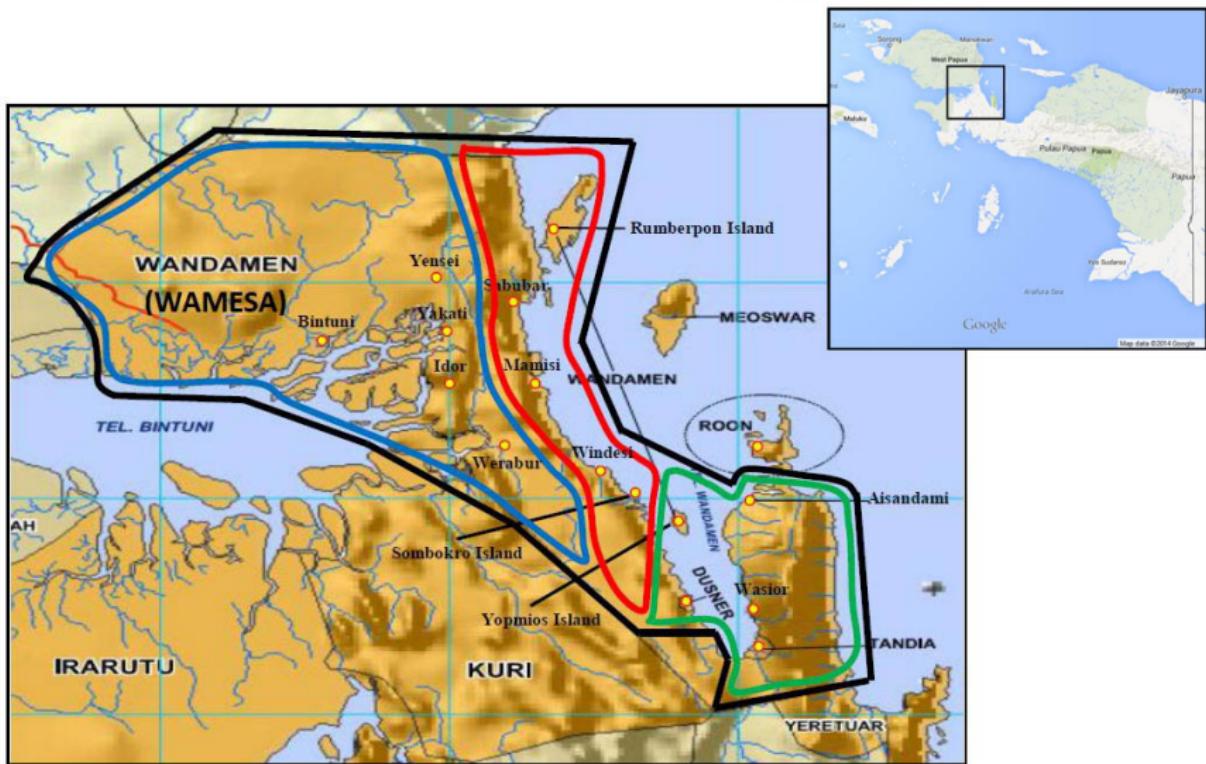
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PL.NONHUM	na-ne	na-ya	na-wa

Numerals: *yoser* ‘one’; *nuru* ‘two’; *tori* ‘three’

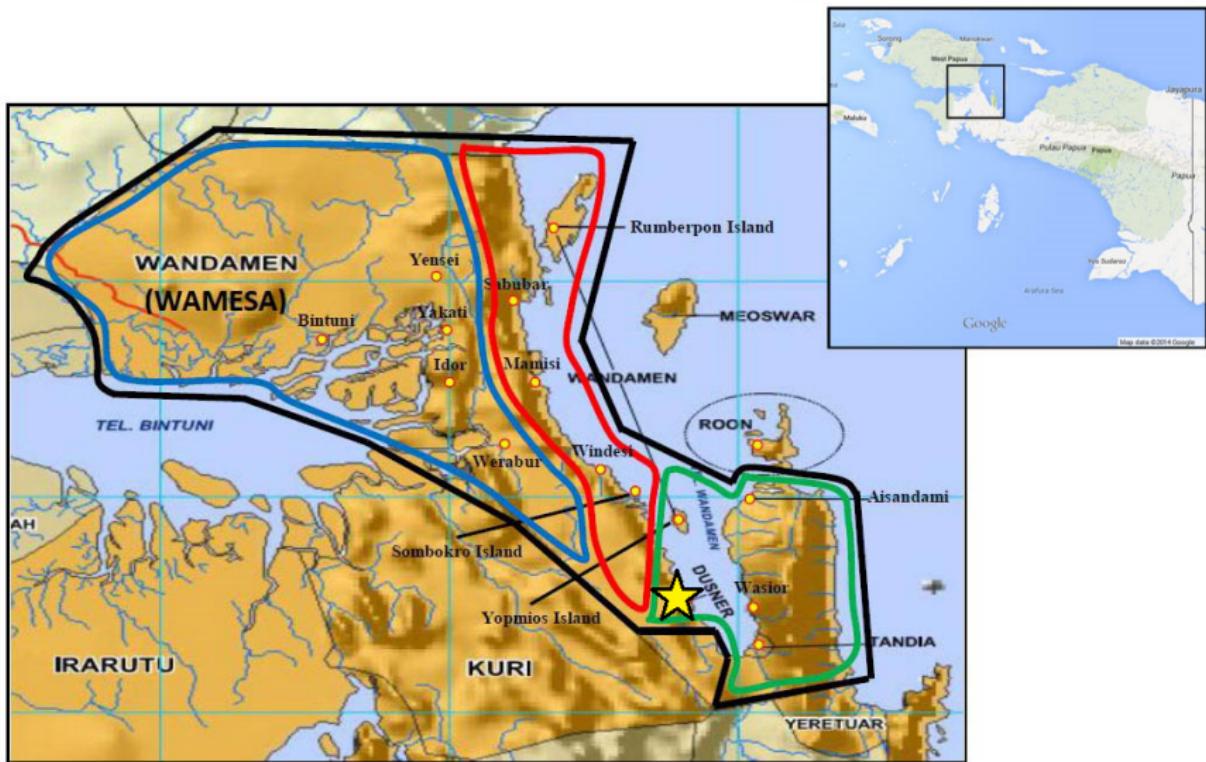
Reanalysis unlikely.

(Dalrymple & Mofu 2012: 13, 21)

Dusner contact with Wamesa



Dusner contact with Wamesa



Dusner borrowing from Wamesa

Lexicon:

	Wamesa	Dusner	Biak
‘only’	<i>venasia</i>	<i>vanas</i>	<i>mónda, bakn</i>
‘to pound (sago)’	<i>tara</i>	<i>tar</i>	<i>nuk</i>
‘many’	<i>pau</i>	<i>pau</i>	<i>bór</i>

Number systems:

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

(van den Heuvel 2006)

Warembori

What about Warembori?

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:

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- ▶ is cross-linguistically uncommon;
- ▶ ~6% of languages

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- ▶ arose via reinterpretation of number agreement markers;
 - ▶ Wamesa (& Warembori???)

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- ▶ 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!



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Word order by prevalence (Cinque n.d.)

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

Rank	Order	#	%	Rank	Order	#	%
1.	NAQD	539	31.95%	13.	NDAQ	43	2.55%
2.	DQAN	367	21.75%	14.	ANDQ	25	1.48%
3.	QNAD	243	14.40%	15.	DAQN	7	0.41%
4.	DQNA	194	11.50%	16.	NQDA	6	0.36%
5.	DNAQ	187	11.08%	16.	ADQN	6	0.36%
6.	NQAD	123	7.29%	18.	QNDA	4	0.24%
7.	NADQ	105	6.22%	19.	AQND	2	0.12%
8.	DNQA	79	4.68%	20.	QDAN	1	0.06%
8.	DANQ	79	4.68%	20.	QDNA	1	0.06%
10.	QAND	78	4.62%	20.	ADNQ	1	0.06%
11.	NDQA	74	4.39%	23.	QADN	0	0.00%
12.	ANQD	45	2.67%	23.	AQDN	0	0.00%

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”