



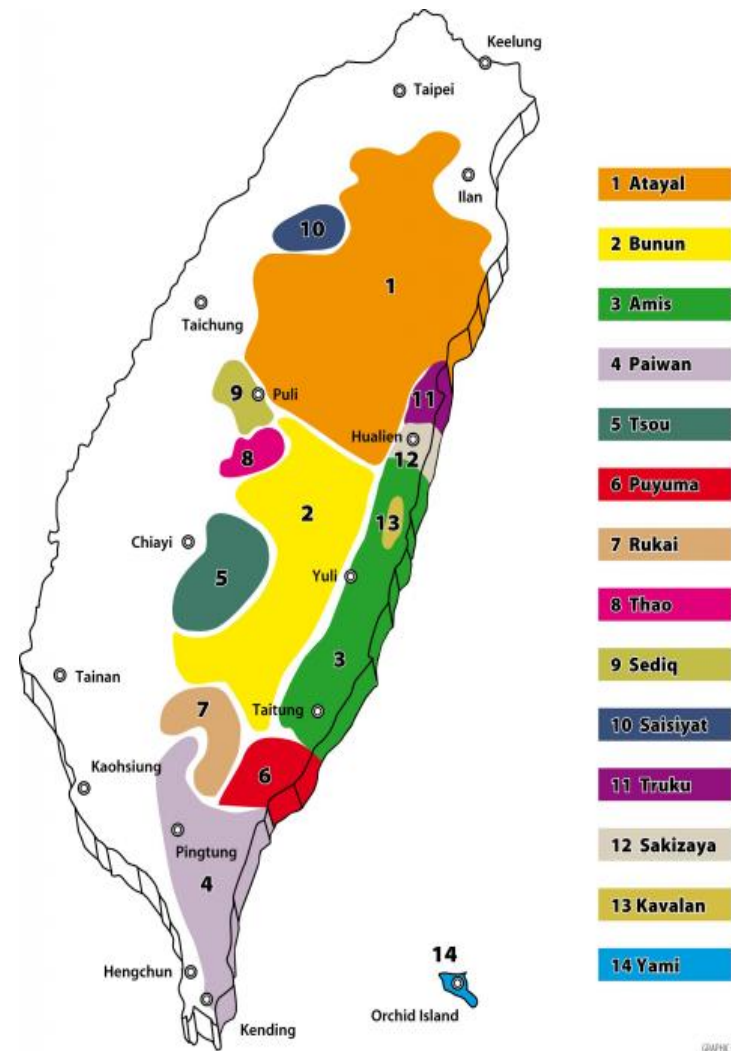
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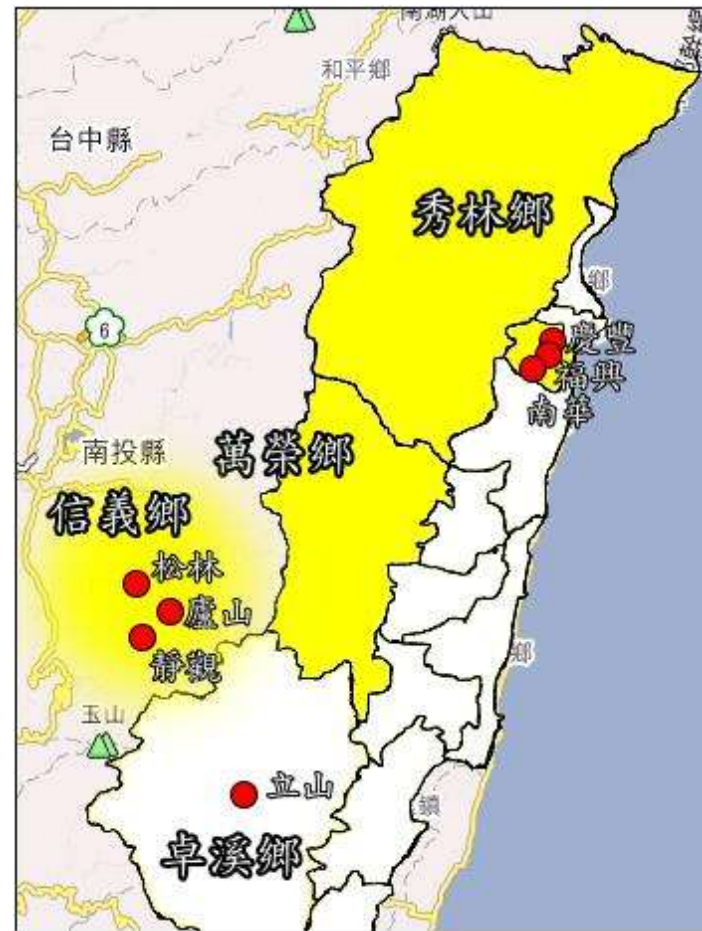
**VARIATION AS A  
CONTACT-INDUCED  
PHENOMENON. THE CASE  
OF TRUKU (TAIWAN)**

# + Situation of the Truku language



<http://www.snipview.com/q/Endangered%20Austronesian%20language>

# + Implantation of Truku population (estimated 20,000)



# + INTRODUCTION\*

Table 1. Position of elements in the DP relative to N in Truku

<i>Pre-N position</i>	<i>Post-N position</i>
Numerals	Possessives (nouns and pronouns)
Adjectives	Adjectives
	Modifier nouns
	Demonstratives

\* This project was conducted as part of the CLAPOTY Project (funded by the French Agence Nationale pour la Recherche under the reference ANR-09-JCJC-0121-01) and co-funded by the LabEx Empirical Foundations of Linguistics.



# + INTRODUCTION

- Pecoraro (1979: 50-51)

(1) Paru sapax ka sapax Diyan  
big house PRED house Diyan  
Diyan's house is a big house

(2) Sapax paru ka sapax Diyan  
house big PRED house Diyan  
Diyan's house is the big house

# + Outline of this talk

- A look at the positional variation in our corpus
- Syntactic, semantic or pragmatic implications of positional variation of adjectives in Truku
- A look at Mandarin Chinese and mixed-language data
- Hypotheses and conclusion

# + Data collection methodology

- 24 different speakers
- 3 “age-classes”
  - A speakers: 65-84 years old in July, 2014
  - B speakers: 36-64 years old
  - C speakers: 15-35 years old
- 39 dyadic interactions, video-taped and audio-recorded
- 10,469 words transcribed
- 2 principal languages: Truku and Taiwan Mandarin Chinese

## + Data collection methodology\*



\* Many thanks to Lowking Nowbucyang (許韋晟), National Tsing Hua University, for his invaluable help with data collection and transcription, and to Lu Yunfang (陆云芳), Université Paris Diderot, for her help with annotation of the Mandarin Chinese part of the corpus.



# 1. OBSERVED VARIATION IN THE POSITION OF ADJECTIVES IN OUR DATA

## ■ A speakers

	Truku DP			Mandarin Chinese DP		Mixed DP		
Speaker	N- Adj	Adj- N	Adj- N- Adj	N Adj	Adj N	Adj[cmn]- N[trv]	N[trv]- Adj[cmn]	N[trv]- Adj[trv]- Adj[cmn]
A1	2	1						
A3	15	1	1	1	2			
A4	7							1
A5	6	1						
A6	15	7			1			
A7	10	4						
A8	16	1		1		2		
A9	4	1			4			
A10	10							



# 1. OBSERVED VARIATION IN THE POSITION OF ADJECTIVES IN OUR DATA

## ■ B speakers

	Truku DP			Mandarin Chinese DP		Mixed DP		
Speaker	N-Adj	Adj-N	Adj-N-Adj	N-Adj	Adj-N	Adj[cmn]-N[trv]	N[trv]-Adj[cmn]	N[trv]-Adj[trv]-Adj[cmn]
B1	10	2						
B2	4	17						
B3	1				3			
B4	4	5						
B5	6							
B8	13	12			8	1		
B9	6							
B11	3							
B12	10	3			2	3	2	
B13		1			1			
B14	4	4						
B15	3							
B16	1							



# 1. OBSERVED VARIATION IN THE POSITION OF ADJECTIVES IN OUR DATA

## ■ C speakers

	Truku DP			Mandarin Chinese DP		Mixed DP		
Speaker	N- Adj	Adj- N	Adj- N- Adj	N Adj	Adj N	Adj[cmn]- N[trv]	N[trv]- Adj[cmn]	N[trv]- Adj[trv]- Adj[cmn]
C4						1		
C5						3		



# 1. OBSERVED VARIATION IN THE POSITION OF ADJECTIVES IN OUR DATA

- Total by age class and general total

	Truku DP			Mandarin Chinese DP		Mixed DP		
Speaker	N- Adj	Adj- N	Adj- N- Adj	N Adj	Adj N	Adj[cmn]- N[trv]	N[trv]- Adj[cmn]	N[trv]- Adj[trv]- Adj[cmn]
A speakers	75	16	1	2	7	2		1
B speakers	65	44			14	4	2	
C speakers						4		
<b>Total</b>	<b>150</b>	<b>60</b>	<b>1</b>	<b>2</b>	<b>21</b>	<b>10</b>	<b>2</b>	<b>1</b>





## 2. EXPLAINING VARIATION: TEASING OUT THE SYSTEMIC FACTORS

- To tease apart the factors of variation that may be linked to the linguistic system *per se*, we will look at
  - syntactic
  - semantic
  - discursive potential factors of variation between the two orders.



## 2.1. Are there syntactic environments in which the adjective has to occupy the pre-N position?

- When the N is followed by another modifier...

(3) Paru    bluhing                    su                    lala    bi            napa(-)su  
       big    sieve                    2SG;POSS            many   really   ??- 2SG;POSS  
       Your big sieves are very many (???) [A3]

(4) Ni        bhgay   haya    bilaq    ga  
       CONJ   white   car    small   DEM;D  
       And that small white car        [17/2-30; A3]

## + 2.1. Are there syntactic environments in which the adjective has to occupy the pre-N position?

- ...but not always!

(5) Gasil    m-banah            qthur    gaga    o            nisu  
       string   AF-red            thick    DEM;D TOP       2SG;POSS  
       This thick red rope is yours. [A3]

(6) Ubal    b-baraw            puurung  
       feather RED-long       owl  
       Very long owl's feathers       [A3]

## + 2.1. Are there syntactic environments in which the adjective has to occupy the pre-N position?

- Further speaker-internal variation (B8)

(7) P-sa-i                      qita:    m-banah                      pratu-su                      troma  
      CAUS-go-IMP    that\_is AF-red                      bowl-2SG;POSS                      under  
      Put (it), that is, under your red bowl. [19/6-75; B8]

(8) Paru    qsurux nini  
      big    fish    DEM;P  
      This big fish [19/6-37; B8]

## **+ 2.2. Are there semantic and discursive environments in which the adjective has to occupy the pre-N position?**

- Does the DP contain other markedly definite words, such as possessives or demonstratives?
- Is the DP included in a syntactic expression that favors (in)definite DPs (such as the presentative/existential construction)?
- Is the DP mentioned for the first time or has it been mentioned before in the discourse (in which case it has to be definite because definite determiners have anaphoric value)?

+

## 2.2. Are there semantic and discursive environments in which the adjective has to occupy the pre-N position?

Table 3. Lexical or syntactic environments

	<i>pratu</i> + Adjective	Adjective + <i>pratu</i>
Without further elements	56	12
Followed by a demonstrative	7	4
Followed by a possessive	0	2
Total	63	18

# + *Demonstratives and possessives*

## ■ Demonstratives

- Not conclusive, since both Adj-N and N-Adj orders may be found in co-occurrence with a demonstrative

## ■ Possessives

- possessive pronouns occur only with the Adj-N order
  - which could lend support to our syntactic hypothesis
  - but does not go well with the hypothesis that such DPs have an indefinite reference (cf. Pecoraro)

## + *Presentative/Existential* sentences

- In languages such as English, French and Mandarin Chinese (Chen 2004 and 2009), presentative/existential structures favor the introduction of indefinite DPs in object positions, the subject position being filled with expletive or null subjects ('il y a', 'there is', 'Ø有').
- Similarly, in Tgdaya/Paran Seediq, (Chang 2000: 106), definite NPS are incompatible with presentative/existential sentences.
  - Chang uses the verb *niq-an* in the LF form, translated 'have'
  - he explicitly rules out DPs containing a demonstrative as first argument (non-subject) of presentative sentences introduced by *niq-an*, while allowing DPs introduced by the numeral *kingan* 'one'.



## + *Presentative/Existential sentences*

- with numerals...and demonstratives

(9) Aji      niq-an              kingal wawa roro?  
 NEG    live-LF one      baby    duck  
 Isn't there one baby duck? [17/2-52; A1]

(10) Hay                      niq-an              kingal wawa roro    ga?  
 NEG;INT              live-LF one      baby    duck    DEM;D  
 Isn't there that one baby duck? [17/1-85; A1]

# + *Presentative/Existential sentences*

## ■ syntax vs. discourse contradiction

(11) Niq-an            ey:    qurug kaji    ki    ga  
       live-LF            FILL   round key    DEM   DEM;D  
       There is uh that round key [22/1-31; B14]

## ■ presentatives introducing DPs with possessives

(12) Hay            niq-an ka    bling   na            hiya ?  
       NEG;INT       live-LF PRED   hole   3SG;POSS   there  
       Isn't there a (litt. 'his') hole there ? [17/1-71; A1]

# + *Presentative/Existential sentences*

## ■ presentatives with AF forms

- (13) Pratu ma-niq iril iril  
 bowl AF-live left iril  
 The bowl is on the left, left. [20/9-35; A8]

## ■ Mixed-language presentatives introducing DPs with demonstratives

- (14) 還 有 那 個: roro bilaq ga 黃色 的<sup>10</sup>  
 HAI YOU NA GE: roro bilaq ga HUANGSE DE  
 again have DEM;D CL duck small DEM;D yellow MOD  
 And there's uh that little duck, yellow [20/4-74; B12]



# *First and subsequent mentions of entities*

Table 4. First and subsequent mentions of red or black bowls<sup>11</sup>

Text reference	Speaker	First mention	Second mention	Subsequent mentions
17/1	A1			Adj-N
17/2	A3	N-Adj	N-Adj	
17/3	B1			
17/4	B2			N-Adj
17/5	A3		N-Adj	
17/9	B2			Adj-N
18/5	B5	N-Adj	Adj-N	
	B4	N-Adj		
18/7	B4	N-Adj		
18/9	B4		N-Adj	
19/1	A6	N-Adj		
19/2	B9	N-Adj		
	A6	N-Adj		
19/3	B8	N-Adj		
19/5	A6	N-Adj	N-Adj	
19/6	A5	N-Adj		
	B8	N-Adj	N-Adj & Adj-N	Adj-N
19/8	A7	N-Adj	Adj-N	Adj-N
20/2	A8	N-Adj	Adj-N	
20/4	B12	N-Adj	N-Adj & Adj-N	N-Adj
	B11	N-Adj		
20/7	A9	N-Adj		
20/8	A8	N-Adj & Adj-N	N-Adj & Adj-N	N-Adj & Adj-N
20/9	A8	N-Adj	N-Adj	N-Adj
21/2	B12	N-Adj & Adj-N	Adj-N	
21/3	A9	N-Adj	N-Adj	
22/1	B14	N-Adj	N-Adj & Adj-N	Adj-N
22/2	B15	N-Adj		
	B16	N-Adj		
22/3	A10	N-Adj	N-Adj	N-Adj



## **2.3. Interim conclusion on linguistic factors of variation**

- After close scrutiny, it seems that neither of the syntactic, semantic factors we examined fully explains variation.
- Discourse organization may be an issue, but does not accord well with the definite/indefinite hypothesis. This has to be investigated further.
- Therefore, we will have to consider the possibility that variation may (additionally) result from other, system-external, factors.

### **+ 3. VARIATION AS A CONTACT-INDUCED PHENOMENON**

- Next to the data showing variation in the Truku language as to the position of adjectives, we also have data produced in Mandarin Chinese by the same speakers, as well as Truku-Chinese mixed data.
- We find the latter of special significance, since the relative order of Adjectives and Nouns is different in the two languages.
- Nevertheless, monolingual Mandarin Chinese utterances also bear interesting information.

## + 3.1. Mandarin Chinese DPs with Truku word order

### ■ marked order Mandarin Chinese DPs

(15) 貓頭鷹      小      的  
 MAOTOUYING   XIAO   DE  
 owl              small   MOD  
 The small owl [17/8-84; A3]

(16) 鴨      黃色      的  
 YA      HUANGSE      DE  
 duck   yellow      MOD  
 The yellow duck      [20/8-68; A8]

## + 3.2. Mixed DPs

Table 2c. Mixed DPs with both word orders

Speaker	Number of occurrences of Adj-N	Number of occurrences of N-Adj	Total number of MC syllables uttered by speaker	Total number of Truku words uttered by speaker
A4		1	117	206
A8	2		234	516
B8	1		109	279
B12	3	2	288	280
C4	1		290	18
C5	3		198	21
Total	10	3	-	-



## + 3.2. Mixed DPs

### ■ Mixed DPs with Adj-N order

(17) 綠色 是 大 的 puurung 啊  
 LŪSE SHI DA DE puurung A  
 green be big MOD owl EXCL  
 The green (one) is the big owl! [20/8-76; A8]

(18) 還 有 小 babuy  
 HAI YOU XIAO babuy  
 again have small pig  
 There's also the small pig. [19/4-68; B8]

(19) 黃色 的 roro 喔 ga inu ka bhngi ?  
 HUANGSE DE roro O ga inu ka bhngi  
 yellow MOD duck INTJ be-at where;INT PRED bird  
 The yellow duck, where is the bird?

## + 3.2. Mixed DPs

### ■ Mixed DPs with N-Adj order

(20) pratu 黑色 的, pratu 黑色 的 還 有 紅色 的  
 pratu HEISE DE, pratu HEISE DE HAI YOU HONGSE DE  
 bowl black MOD bowl black MOD again have red MOD  
 A black bowl, a black bowl and also a red (one). [20/3-13; B12]

(21) iq bhngi bilaq 黃色 ga  
 iq bhngi bilaq HUANGSE ga  
 yes bird small yellow DET;D  
 Yes, that small yellow bird. [18/2-36; A4]

### **+ 3.3. Language contact and variation: an individual equation**

- Auer & Muhamedova (2005): languages in prolonged contact develop into new varieties by influencing each other.
- This development occurs through more and more widespread variation in each of the participant languages.
- C speakers in our experiment: limited Truku fluency; use of isolated Truku nouns in otherwise Mandarin Chinese DPs
- B speakers: fluent in both languages; mutual influence of both languages: heavy use of Adj-N order in Truku DPs + both orders in mixed language DPs
- A speakers: dominant in Truku; overall less Adj-N order in Truku DPs, individual variation as to N/Adj word order in mixed utterances

## + 4. CONCLUSION

- Judging from related dialects, the canonical order between nouns and adjectives in Seediq is the N-Adj order
- However, some facts indicate that there used to be some kind of systemic variation as to the relative order of N and Adj in Truku (possibly an innovation in this dialect of Seediq):
  - the mention by Pecoraro (1979) that order variations correspond to different referring functions of the DP
  - the fact that our eldest informer refuses the Adj-N order except in some syntactically motivated cases
- Unsystematic variation found in our data => the precise systemic constraints upon this variation phenomenon are presently lost, despite the fact that the possibility of varying orders is currently acknowledged by most speakers
- There seems to be an increase in variation from A to B speakers, but language attrition in C speakers may not allow us to witness the full process of language variation > language change

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