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When synthetic meets analytic:
contact-induced change in Pazeh (Kaxabu), a Formosan language

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1. A previously unattested structural change found in Pazeh Kahabu, a highly sanicized and nearly extinct Austronesian language.
 2. The reflex of Proto-Austronesian *pa-ka- ‘causative of stative’ in Pazeh has been reanalyzed as a **functional word**.
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Proposal:

This reanalysis is a product of Pazeh’s long term contact with Taiwanese Southern Min (TSM) and Mandarin Chinese.

Analysis:

The causative prefix pa-ka- has been reinterpreted as a **light-verb-like functional word** similar to both

- (i) the light verb **ba** used in Mandarin Chinese, &
- (ii) the light verb **ka** used in Taiwanese Southern Min (TSM).

Taiwanese Southern Min (TSM) is the main source of this contact-induced change.

Proto-Austronesian *pa-ka- 'causative of state'

(e.g., Blust 2003; Zeitoun 2007)

Puyuma (Formosan, VSO)

a. bulray na ruma'.
be.beautiful abs house
'The house is beautiful.'

b. pa-ka-bulray=ku kana ruma'.
PAKA-be.beautiful=1sg.abs obl house
'I made the house beautiful.'

(primary data)

Amis (Formosan, VSO)

a. ma-rokrok ku nanum.
av-be.boiling abs water
'The water is boiling.'

b. pa-ka-rokrok kaku tu nanum.
PAKA-boiling 1sg.abs obl water
'I made the water boiling.'

(primary data)

Seediq (Formosan, VOS)

a. malu bi ka Imin.
av.be.good very abs Imin
'Imin is nice.'

b. pa-ka-malu Imin ka yaku.
PAKA-be.good Imin.obl abs 1sg.abs
'I made Imin good (made better).'

(primary data)

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(primary data)

Pazeh Kaxabu (Formosan, SVO-VOS)

a. mu-paja' raratam.
av-wet table
'The desk is wet.'

b. yaku paka raratam mu-paja'.
1sg PAKA desk av-wet
'I made the desk wet.'

a. mu-hamuk ki puhula.
av-melt nom ice
'The ice is melting.'

b. liza' paka puhula mu-hamuk.
sun PAKA ice av-melt
'The sun made the ice melt.'

(primary data)

1. Why does **pa-ka-** got separated from its verb stem?

2. Why does this structural reanalysis happen also in some cases of **causative of dynamic** and **ditransitive** constructions, where **pa-ka-** (cau. of stative) are not supposed to be used?

Analysis:

pa-ka- (bound)  **functional word (free)**

1. structural motivation
2. phonological motivation

- parallel to the light verb used in causative and ditransitive constructions in Taiwanese Southern Min (TSM) and Mandarin Chinese (MC).



- Puli township
 - Central Taiwan
 - Population: 8,2808
- Pazeh
 - Pazeh (extinct)
 - Kaxabu (nearly extinct)



- Pazeh

- has been in contact with the Chinese people for 150 years (e.g., word order)





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- Pazeh

- has been in contact with the Chinese people for 150 years (e.g. word order)
- dominant language & areal lingua franca: **Taiwanese Southern Min (TSM)**
- Mandarin Chinese (MC) began its influence in the recent 60 years.
- **Most Pazeh speakers are bilingual in TSM** and capable of MC
- less than 10 speakers

Fieldwork:

2014 July, 79-yr-old male, bilingual in TSM, fluent in MC



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1sg PAKA desk av-wet
'I made the desk wet.'

Mandarin Chinese (SVO)

a. zhozi shi shi-de.
desk cop wet-mod
'The desk is wet.'

b. wo *(ba) zhozi nong shi(-le).
1sg BA desk make wet-(pfv)
'I made the desk wet.'

Taiwanese Southern Min (SVO)

a. de'a si dam-e.
desk cop wet-mod
'The desk is wet.'

b. gwa *(ka) de'a cong dam-qi a.
1sg KA desk make wet-(rst) part
'I made the desk wet.'

Proto-Austronesian *pa-ka- ‘causative of state’ (e.g., Blust 2003; Zeitoun 2007)

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<av>bite abs dog obl person PA-bite=1sg.abs obl person obl dog
‘The dog bites the person.’ ‘I made the dog bite the person.’

(primary data)

Pazeh Kaxabu (Formosan, SVO)

- a. wazu nazip Ali. b. yaku paka wazu nazip Ali.
dog av.bite Ali 1st PAKA dog av.bite Ali
‘The dog bites Ali.’ ‘I made the dog bite Ali.’

- a. isiaw ka ma-kuala lia. b. yaku paka isiaw ma-kuala.
3sg nom av-fall pfv 1st PAKA 3sg av-fall
‘He fell.’ ‘I made him fall.’

- c. paka ima ma-kuala isiaw?
PAKA who av-fall 2sg
‘Who did you make fall?’

Puyuma (Austronesian, VSO)

- a. ku=niwan-ay na aputr kan Senden.
1sg.erg-sell-lv abs flower obl Senden
'I solde Senden flowers.'
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Pazeh Kaxabu (Austronesian, SVO-VOS)

- a. yaku **paka** tukun paju-en Ali.
1sg **PAKA** taro buy-pv Ali
'I sold Ali flowers.'

The reanalysis of pa-ka-

1. Structural motivation

2. Phonological motivation

Mandarin Chinese (SVO)

- a. wo *(ba) hua mai-gei Ali.
1sg **BA** flower sell-dir Ali
'I sold Ali flowers.'

pa-ka- → MC **ba**
 → TSM **ka**

Taiwanese Southern Min (SVO)

- a. gwa *(ka) xuei ve-he Ali.
1sg **KA** flower sell-dir Ali
'I solde Ali flowers.'

Summary

A. canonical pa-ka- construction in typical Austronesian languages

pa-ka-V_{state} NP_{theme} NP_{agent} (causative of stative verb)

B. pa-ka- in Pazeh Kaxabu

1. NP_{agent} pa-ka-V_{state} NP_{theme} (cau of stative)

2. NP_{agent} pa-ka NP_{theme} V_{state} (cau. of dyn./ditr.)

C. BA-construction in Mandarin Chinese

NP_{agent} ba NP_{theme} V_{state/dynamic} (cau.)

NP_{agent} ba NP_{theme} V_{ditr.} NP_{recipient} (ditr.)

D. KA-construction in Taiwanese Southern Min

NP_{agent} ka NP_{theme} V_{state/dynamic} (cau.)

NP_{agent} ka NP_{theme} V_{ditr.} NP_{recipient} (ditr.)

Although similar in many ways, KA-construction in TSM differs from BA-construction in MC in two different aspects.

1. To form causatives or ditransitives, a KA-construction is obligatory for TSM, but a BA-construction is only optional for MC.

>> the obligatoriness of the KA-construction for stative causative & ditransitives offers a stronger pull for the reanalysis of Austronesian pa-ka-.

2. The Austronesian prefix pa- for causative of dynamic verbs does not undergo structural shift as pa-ka- (causative of stative) does.

>> the phonological trigger of this structural shift is ka (TSM) instead of ba (MC)

3. According to the socio-historical backgrounds, TSM is expected to be the main trigger of this contact-induced change.

>> TSM (instead of MC) is the dominant lingua franca in the target area

1. To form causatives or ditransitives, a KA-construction is obligatory for TSM, but a BA-construction is only optional for MC.

- Taiwanese Southern Min

5a. gitaw	ka	bieng	yu-ki	a.	5b. *gitaw	yu-ki	bieng	a.
sun	KA	ice	melt -RST	PFV	sun	melt -RST	ice	PFV
CAUSER	CAU	THEME	V _{STATE} -RST	PFV	CAUSER	V-RST	THEME	PFV

‘The sun made the ice melted.’ [TSM; causative constructions of stative verb]

- Mandarin Chinese

7a. wo	ba	zhuozi	nong shi	le	7b. wo	nong shi	le	zhuozi	(cf. 5a-5b)
1SG.	BA	table	make	wet	1SG.	make	wet	PFV	table

‘I made the table wet.’ [MC, causative constructions of stative verb]

2. The Austronesian prefix pa- for causative of dynamic verbs does not undergo structural shift as pa-ka- (causative of stative) does.

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'The dog bites Ali.' 'I made the dog bite Ali.'

- a. isiaw ka ma-kuala lia. b. yaku paka/*pa isiaw ma-kuala.
3sg nom av-fall pfv 1st PAKA/*PA 3sg av-fall
'He fell.' 'I made him fall.'

2. In ditransitive sentences, where pa-ka- (cau. of stative) is not supposed to be used, pa-ka- still presents with the structural shift attested.

Taiwanese Southern Min

9a. gwa ka ce huei te-ho Ali.
1SG KA DET flower give-to Ali
AGENT KA THEME V_{TRANSFER} RECI
'I gave this flower to Ali.' [TSM]

9b. li ka xiami te-ho Ali?
2SG KA what give-to Ali
AGENT KA THEME V_{TRANSFER} RECI
'What did you give to Ali?' [TSM]

Pazeh

8a. yaku paka minia a tulala pahay Ali.
1SG PAKA DET LK flower give.AV Ali
'I gave this flower to Ali.' [KAH]

8b. isiw paka axay-axay pahay Ali?
2SG PAKA what give Ali
'What did you give to Ali?' [KAH]

Although similar in many ways, KA-construction in TSM differs from BA-construction in MC in two different aspects.

(i) all the cases of pa-ka- reanalysis found in Pazez involve verbs that are used as stative (or ditransitive) in TSM.

(ii) on the other hand, the causative prefix pa- does not undergo structural reanalysis in Pazez → ka (TSM) as the source of influence

TSM is the main trigger of this structural change.

STAGE I pa-ka- (cau. of stative) → ka (light verb in TSM)

STAGE II ditransitive
causative of dynamic verbs

Result: cau. & ditr. verbs have paka separate from the verb stem and serve as a functional word

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Conclusion:

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