



NI, PNI, and Quasi PNI: Tagalog and the typology of incorporation*

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1 Nutshell

- Propose preliminary typology of NI, PNI, Quasi PNI languages
- Re-examine data on pseudo noun incorporation (PNI) in Tagalog (Starr, 2015; Barrie and Kim, 2018)
- Show that nominals case-marked with *ng* have *some* typical PNI properties
- has semantic properties (scope, etc.)
- lacks syntactic properties (case marked, moves freely)
- call this quasi PNI
- suggest an analysis called *internal reconstruction*
- like (P)NI, functional material is removed from the nominal, but from the middle rather than from the top
- some tentative suggestions on the semantics of structural Case (or lack thereof) and how quasi PNI has the semantics of PNI without the syntactic properties of PNI

2 Background

2.1 Properties of PNI

- Syntactic Noun Incorporation: (Baker, 1988) – morphological fusion between N and V.
- Morphosyntactic characteristics
 - absence of case marking (Dayal, 2011; Massam, 2001)
 - nominal phrase without extended functional projection (i.e. NP or NumP instead of DP or KP) (Massam, 2001)

(1) Niuean

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- a. Kua fakahū he ekekafo e tohi.
 PVF send ERG doctor ABS letter
 ‘The doctor sent the letter.’
- b. Kua fakahū tohi e ekekafo
 PFV send letter ABS doctor
 ‘The doctor sent the letter.’

– PNI object in (1-b)

- * no case (reduced morphology on the noun)
- * subject marked with absolutive (reduced transitivity on the verb)

• Syntactic characteristics

- internal arguments undergo PNI
- strict adjacency with verb

(2) Blackfoot *ni'tóyi* replacement test (from Bliss (2018))

- a. Nitsóoyi immisstsíhkitaan ki anna Máí'stóó ni'tóyi
 nit-ii-oo-i immisstsíhkitaan ki ann-wa M ni'tó-yi
 1-IC-eat-AI frybread and DEM-SG.PROX M. same-be.II
 ‘I ate frybread and Mai'stood did so too.’

- b. *Nitsóoyi sitókíhkitaan ki pisátsskitaan ni'tóyi
 nit-ii-oo-i sitok-ihkitaan-n ki pisat-ihkitaan-n ni'tó-yi
 1-IC-eat-AI MID-bake-NLZR and fancy-bake.AI-NLZR same-be.II
 Intended: ‘I ate pie and I ate cake too’

- c. Nitohpókihipiyimawa oma nináaw ki anna Aapááni ni'tóyi
 nit-ohpok-ihpiyi-m-a-wa sitokom-wa ninaa-wa ki ann-wa A
 1-ACCOMP-dance-TA-DIR-PROX DEM-SG.PROX man-SG.PORX and DEM-SG.PROX A
 ni'tó-yi
 same-be.II
 ‘I danced with that man and Aapaani danced with him too.’
 or ‘I danced with that man and I danced with Aapaanii too.’

– *ni'tóyi* always replaces V + NP in PNI construction (2), while run-of-the-mill DP need not be replaced (hence (2-c) ambiguous)

• Semantic characteristics

- PNI-ed nominals are number-neutral, indefinite, and non-referential
- obligatorily low scope (<modal, negation, quantifier)

(3) Semantic characteristics of IN in Blackfoot (from Bliss (2018))

- a. Íhkaniyaapiyaawa píitaa
 iihkan-yaapi-yi-aawa piitaa
 all-see.AI-PL-3PL.PRN eagle
 ‘They all saw an eagle.’ ($\forall > \exists, * \exists > \forall$)

- b. Omiksi aapí'siks áwaatoyaawa ??Nitáyoohto aapí'si

om-iksi aapi'si-iksi a-yaato-yi-aawa nit-a-yoohto aapi'si
 DEM-PL coyote--PL IMPF-howl-PL-3PL.PRN 1-IMPF-hear.AI coyote
 'Those coyotes are howling. ??I see a coyote/coyotes.'

- c. Nitayááksooyo'si maataáki
 nit-yaak-ioyo'si maataaki
 1-FUT-cook.AI potato
 'I am going to cook a potato/some potatoes.'

- PNI is crucial in that it shows how nominal structure gives rise to syntactic, semantic and phonological differences
- languages may display properties similar to PNI but essentially different Quasi PNI

2.2 Tagalog

- Tagalog: an official language of the Philippines, Austronesian 30 – 70 million speakers in and around Manila.
- infix or prefix on the verb marks tense and voice
 - agent voice (usu. *-um-*): *ang*-DP is <agent> ("si" before proper nouns), *ng*-DP is <patient> (before "ni" on proper nouns)
 - passive voice (usu. *-in-*): *ang*-DP is <patient>, *ng*-DP is <agent>
- nouns are preceded by a Case marker (Kroeger (1993)).

(4) Tagalog Case markers

Case	human	non-human
NOM	si	ang
GEN	ni	ng
DAT	kay	sa

- Starr (2015): analysis of *ng*-objects in Tagalog as PNI-ed NP.
 - *ng*-marked objects can receive a general number reading, while *ang*-marked objects cannot.
 - *ng*-marked object with adjective resists general number (*contra* our findings below).
- (5) Bumili ng libro ang babae.
 NOM.bought NG book ANG woman
 'The woman bought a book/some books.'
- (6) Bumili ng pula-ng libro ang babae.
 NOM.bought NG red-LNK book ANG woman
 'The woman bought a red book/some red books.'
- (7) Binili ang libro ng babae
 ACC.bought ANG book NG woman
 'The woman bought a book/*some books.'
- It has been noted that *ng*-marked arguments can be specific or unspecific in contrast to *sa*-marked arguments (Latrouite (2011))
- (8) a. siya ang naka-kita ng aksidente.
 3s.NOM NMZ POT.AV.REAL-visible GEN accident
 'He is the one who saw a/the accident.'
- b. siya ang naka-kita sa aksidente.
 3s.NOM NMZ POT.AV.REAL-visible DAT accident
 'He is the one who saw the accident.'

3 Methodology

- standard elicitation techniques used to test properties of IN
- Number neutrality tested with the following pictures:



4 Results

4.1 General Number

- Number neutrality of *ng*-objects and number-specificity of *ang*-marked arguments (Starr, 2015) confirmed in our test
- (9) a. Bumili ang babae ng mansanas
buy.PST.AV ANG woman NG mansanas
'The woman bought some a book/some books.'
- b. Bumili ang babae ng mga mansanas
buy.PST.AV ANG woman NG PL mansanas
'The woman bought some books'
- c. Binili ng babae ang mansanas kahapon
buy.PST.PV NG woman ANG apple yesterday
'The apple was bought by a woman yesterday.' (singular only)

4.2 Specificity

- When the *ang*-phrase is preposed, object can be:
 - marked with *ng* - specific or non-specific
 - marked with *sa* - specific only
 - *sa* - usually a dative marker -> mirrors differential object marking
- (10) a. Si Maria ang kumain ng mansanas.
ANG.PR Maria ANG eat.PST.AV NG apple
'Maria is the one who ate an apple.'
- b. ... pero hindi ko alam kung alin
... but NEG I know whether which
'... but I don't know which one.'

- (11) a. Si Maria ang kumain sa mansanas
 ANG.PR Maria ANG eat.PST.AV SA apple
 ‘Maria is the one who ate an apple.’
- b. ... *pero hindi ko alam kung alin.
 ... but NEG I know whether which
 (‘... but I don’t know which one.’)

4.3 Scope

- (12) Scope under Negation
- a. Hindi k-um-ain si Juan ng mansanas dahil wala nito.
 NEG eat1-AV-eat2 ANG Juan NG apple because nothing this
 ‘Juan didn’t eat an apple because there aren’t any.’
- b. ...Sige. Ako na lang ang kakain nito.
 ‘Ok. I’ll eat it then.’ (also possible with above)
- c. *Hindi k-in-ain ni Juan ang mansanas dahil wala nito
 NEG eat1-AV-eat2 NG Juan ANG apple because nothing this
 ‘Juan didn’t eat the apple because it doesn’t exist.’
- d. ...Sige. Ako na lang ang kakain nito.
 ‘Ok. I’ll eat it then.’ (possible with above)
- *ng*-marked nominals can take high or low scope. - unexpected under PNI analysis
 - *ang*-marked nominals can only scope above negation. - expected
- (13) Scope under Modal *dapat* ‘should’
- a. Dapat k-um-ain si Juan ng mansanas.
 NEG eat1-AV-eat2 ANG Juan NG apple
 ‘Juan needs to eat an apple.’ (speaker: any apple)
- b. Dapat kain-in ni Juan ang mansanas.
 NEG eat-OV NG Juan ANG apple
 ‘Juan needs to eat an apple.’ (speaker: a specific apple)
- *ng*-marked nominals scopes under modal. - expected
 - *ang*-marked nominals scopes above modal. - expected
- (14) Scope under Adverbs: *madalas* ‘often’
- a. Madalas si Juan mag-basa ng aklat.
 often ANG Juan MAG-read NG book
 ‘Juan often reads a book.’ (speaker: any book/#a specific book)
- b. Madalas basa-hin ni Juan ang aklat.
 often read-OV NG Juan ANG book
 ‘Juan often reads the/a book.’ (speaker: a specific book only)
- *ng*-marked objects scopes under adverb. - expected
 - *ang*-marked objects scopes above adverb. - expected

4.4 Strict Adjacency

- *ng*-marked objects are not necessarily adjacent to the V - unexpected
- *ng*-marked objects can be preceded by *ang*-marked one or *kahapon* 'yesterday'

(15) Bumili ang babae kahapon ng mansanas.
buy.AV.PST ANG woman yesterday NG apple
'The woman bought some book(s) yesterday'

- manner adverbs show some interesting behaviour
- manner adverbs can occur at the beginning or at the end of a sentence
- manner adverbs cannot occur after the V when *ng*-object precedes *ang*-subject
- manner adverbs can occur after the V when *ang*-subject precedes *ng*-object

(16) Tagalog Manner Adverb Position

a. ??kumain ng dahan-dahan ng mansans ang babae.
eat.AV.PST LINK slowly NG apple ANG woman
'The woman ate an apple slowly.'

b. ??kumain ng mansans ng dahan-dahan ang babae.
eat.AV.PST NG apple LINK slowly ANG woman

c. kumain ng mansans ang babae ng dahan-dahan.
eat.AV.PST NG apple ANG woman LINK slowly

d. Kumain ng dahan-dahan ang babae ng mansanas.
eat.AV.PST NG slowly ANG woman NG apple

e. Kumain ang babae ng mansanas ng dahan-dahan.
eat.AV.PST ANG woman NG apple LINK slowly

f. ??Kumain ang babae ng dahan-dahan ng mansanas.
eat.AV.PST ANG woman LINK slowly NG apple

- if *ng*-object were PNI-ed, then (16-b) should not be out because its structure should be the same as (16-d) except that *ng*-object moved together with the V

4.5 Interim Summary

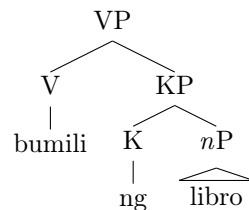
- General Number
 - broadly aligns with Starr
 - *ng*-NP can have general number
 - *ng*-Adj-N can have general number for some speakers
 - *ang*-NP cannot have general number
- Specificity
 - *ng*-object can be specific or non-specific
 - Specific reading can be induced by modifiers such as 'certain' (Paul et al., 2015)
 - *sa*-marked object is specific
 - *ang*-marked object is typically specific, but a non-specific reading can be forced in certain contexts (Paul et al., 2015)
- Scope

- *ng*-NP scopes low (optionally high with negation, though)
- *ang*-NP and *sa*-NP obligatorily scope high
- Strict Adjacency
 - *ng*-NP is not always post verbal
 - *ang*-NP can be closer to the V than *ng*-NP
 - Crucially, Tagalog nominals are case-marked

5 Discussion

5.1 Internal Reconstruction

- Reconstruction typically chips away from the highest functional projection
 - V selects CP or TP or *vP* or VP
 - V selects KP or DP or NumP or *nP* or NP
 - Alboiu (2009) proposes for Romanian that CP can select *vP* directly
 - no intervening TP
- (17) [CP Fiind noi gata cu toții], am pornit la drum.
 [being.GER we.NOM ready with all] 1PL started on way
 ‘Given that we were all ready, we started on our way.’ (Romanian)
- No evidence to TP (no tense marking - NOM from CP)
 - Epistemic adverbs (*probably*) possible
 - topicalized phrases allowed
 - CP > *vP* > VP
 - Rather than reconstruction from the top, this is reconstruction from the middle
 - *internal reconstruction*
 - Proposal: Tagalog quasi PNI results from internal reconstruction
 - defective K selects *nP* directly
- (18) KP > *nP* > NP
- (19) Bumili ng libro ang babae.
 NOM.bought NG book ANG woman
 ‘The woman bought a book/some books.’
- (20)



- tentative!
- Structural Case is semantically opaque

- Case features often assumed to be uninterpretable
- Discussions of the semantic denotation of K are scant
- DP \rightarrow $\langle e \rangle$; KP also $\langle e \rangle$
- certain defective K heads may select *nP*: *ng* in Tagalog, partitive in Finnish (Kiparsky, 1998)
- KP in (20) has the same denotation as *nP*, $\langle e, t \rangle$
- same semantics as bare nominals in more traditional (P)NI
- NumP is missing, so no specification for number
- presence of K requires Case checking, along with the potential for movement

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