Word order and definiteness in Tagalog

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1 Introduction

• Two questions about implicatures:
  – To what extent can the interpretations of (in)definites be derived pragmatically?
  – How does the grammar play a role in calculating a pragmatic inference?

• The puzzle: the (in)definiteness of the patient NP is sensitive to the word order of the clause.
  – In verb-initial sentences: genitive patient NPs are indefinite.
  – In actor-initial sentences: this interpretive constraint on genitive patient NPs is lifted.

(1) a. Nakakita siya ng Amerikano
   PERF_AV.see NOM.3SG GEN American
   He saw an American. (McFarland 1978)

   b. [Siya]_pivot [ang nakakita ___i ng Amerikano]_cleft
      NOM.3SG NOM PERF_AV.see GEN American
      He's the one that saw a/the American. (McFarland 1978)

• The indefinite contraint on genitive patients creates infelicity with certain inherently unique NPs (2a).

• However, in actor-initial sentences, the effect is reduced (2b).

(2) a. #s⟨um⟩ukat ako ng kabilugan ng ulo ni John
    PERF_AV.measure NOM.1SG GEN circumference GEN head GEN John
    I measured a circumference of John's head.

   b. [ako]_pivot [ang s⟨um⟩ukat ___i ng kabilugan ng ulo ni John]_cleft
      NOM.1SG NOM PERF_AV.measure GEN circumference GEN head GEN John
      I'm the one that measured the circumference of John's head.

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• Goals:
  – Make this observation precise: characterize the alternations as the appearance (1,2a) and disappearance (1,2b) of a nonuniqueness implicature.
  – Argue that the implicature fails to arise in (1,2b) due to a lack of pragmatic competition.
  – Argue for a perspective whereby pragmatic inferences take syntactic information into consideration: alternative utterances must be syntactically well-formed in order to enter into pragmatic competition.

2 The definiteness effect of voice

• Tagalog’s (western Austronesian) voice system: one NP is assigned nominative case (though the precise label for the case isn’t crucial).

• The thematic role of the nominative NP is marked by a voice morpheme on the verb (nominative patients appear with patient voice verbs, nominative actors with actor voice, etc.).

• Nominative (common) NPs marked with ang, other argumental NPs take the genitive case marker ng.

\[
\begin{align*}
\text{(3) a. } & \text{bi\textit{ni}li } \text{ng lalaki } \text{ang saging} \\
& \langle \text{PV.PERF}\rangle . \text{buy} \text{ GEN man NOM banana} \\
& \text{The man bought the banana.} \quad \text{patient voice, nominative patient} \\
\text{b. } & \text{b\textit{um}i}li \text{ ang lalaki } \text{ng saging} \\
& \langle \text{AV.PERF}\rangle . \text{buy} \text{ NOM man GEN banana} \\
& \text{The man bought a banana.} \quad \text{actor voice, genitive patient}
\end{align*}
\]

• Nominative patients with ang (NomPats), without any quantificational material, are interpreted as presuppositional definites (see Collins 2016; Paul et al. 2016), e.g., ang saging in (3a).

• Genitive patients with ng (GenPats) are interpreted as indefinites, e.g. ng saging in (3b).

• Evidence for presuppositional status of NomPats: NomPats are infelicitous in contexts not entailing the existence of an individual instantiating their descriptive content. GenPats are felicitous (4).

\[
\begin{align*}
\text{(4) a. } & \text{Context: Juan and Maria approach a closed, sound proof room. Maria walks in, then re-emerges and says:} \\
& \#\text{Nakilala ko ang wizard} \\
& \text{PV.meet GEN.1SG NOM wizard} \\
& \text{‘I met the wizard.’ (Comment: confusing, which wizard does she mean?)} \\
\text{b. } & \text{Nakakilala ako ng wizard} \\
& \text{AV.meet NOM.1SG GEN wizard} \\
& \text{‘I met a wizard.’ (Comment: fine)}
\end{align*}
\]

• Evidence for a difference in scopal behaviour: NomPats do not scopally interact with other operators (like negation) (5a), while GenPats always take narrow scope (5b).
2.1 Nonuniqueness/nonmaximality

- Like English indefinites, Tagalog GenPats often imply “nonuniqueness”.

(6) a. Nadiskubre ni Karlos ang buwan
PERF.PV-discover GEN Karlos NOM moon
Karlos discovered the moon. (⇝ There is only one moon (in the relevant discourse context))

b. Nakadiskubre si Karlos ng buwan
PERF.AV-discover NOM Karlos GEN moon
Karlos discovered a moon. (⇝ There is more than one moon (in the relevant discourse context))

- Like English indefinites, Tagalog GenPats create unexpected inferences if descriptive content is mutually understood to be uniquely instantiated.

(7) a. pinoprotekta-han ko ang mundo
protect-PV GEN.1SG NOM earth
‘I protect the earth.’

b. ?nag-poprotekta ako ng mundo
AV-protect NOM.1SG GEN earth
‘?I protect an earth.’ (Comment: Sounds like a galactic being or something.)

- NomPats encode for maximality: the patient individual exhaustively characterizes the descriptive content.
- GenPats can create the opposite inference (non-maximality): patient individual does not exhaustively characterize the GenPat’s descriptive content.
- Under this understanding, the inferences in (6,7) generalize to plurals (8) and mass nouns (9).

(8) Mayroon mariming ibon sa labas ng bahay ni Maria.
exist many.LK bird OBL outside GEN house GEN Maria
There were many birds outside Maria’s house.

a. S(in)alo ni Maria ang mga ibon.
〈PV.PERF〉.catch GEN Maria NOM PL bird
Maria caught the birds. (⇝ She caught all the birds)

b. S(um)alo si Maria ng mga ibon.
〈AV.PERF〉.catch NOM Maria GEN PL bird
Maria caught some birds. (⇝ She caught some but not all birds)
My mother bought one bottle of milk.

a. *Ininum ko ang gatas.*
   \( \langle \text{av.perf}. \rangle \text{drink gen.1sg nom milk} \)  
   I drank the milk. (\( \rightsquigarrow I \text{ drank all the milk} \))
b. *Uminum ako ng gatas.*
   \( \langle \text{av.perf}. \rangle \text{drink nom.1sg gen milk} \)  
   I drank some milk. (\( \rightsquigarrow I \text{ drank some but not all the milk} \))

- **Upshot:**
  - Nominative patients interpreted as definites: obligatory outscope operators, uniqueness implication, felicitous with uniquely instantiated NPs, exhaustive reading with plurals/mass nouns.
  - Genitive patients are interpreted as (narrow scope) indefinites, often implicate nonuniqueness or nonmaximality with respect to their descriptive content.

<table>
<thead>
<tr>
<th></th>
<th>NomPat</th>
<th>GenPat</th>
</tr>
</thead>
<tbody>
<tr>
<td>definite</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>narrow scope</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>nonuniqueness</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>infelicitous with unique NPs</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>nonmaximality with plurals/mass</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

3 Deriving nonuniqueness as an implicature

- Nonuniqueness implications of English *a* often treated as implicature derived from competition with the (Hawkins 1991; Heim 1991, 2011; Abbott 2003; Horn and Abbott 2013 *inter alia*)

a. Karlos discovered *a* moon. (\( \rightsquigarrow \text{There is more than one moon} \))
b. Karlos discovered *the* moon. (\( \rightsquigarrow \text{There is only one moon} \))

- The competition analysis of the nonuniqueness implication of indefinites:
  - Indefinites do not encode for uniqueness or nonuniqueness.
  - Uniqueness *is* a part of the semantics of definites (as a presupposition).
  - Via competition with the definite form, the meaning of an indefinite is pragmatically enriched to signal nonuniqueness.

(12) *Utterance:* Karlos discovered a moon. (= \( p \))  
*Implicature:* There is more than one moon. (i.e., nonuniqueness/nonmaximality)

a. *Contextual premise:* \( Sp \) knows whether or not there is more than one moon in the relevant discourse context.
b. **Contextual premise:** $Sp$ is cooperative (i.e., will choose the alternative utterance which is optimal: supported by evidence, most relevant, informative, least costly etc.).

c. There is an alternative utterance $q$ (“Karlos discovered the moon”) which $Sp$ could have uttered.

d. $q$ is somehow preferential to $p$.
   - general preference for presuppositional forms like the (Heim 1991), or
   - the is more informative than a (Hawkins 1991; Horn and Abbott 2013).

e. $p$ and $q$ are equally relevant.

f. by (b–e), $Sp$ did not utter $q$ because $Sp$ lacks evidence that $q$ is true (i.e., lacks evidence that its presupposition, there is only one moon, is satisfied).

g. by (a) and (f), $Sp$ lacks evidence for the presupposition of $q$ because it is false (i.e., there is more than one moon).

• **Application to Tagalog:**

  – Definiteness distinction between NomPats and GenPats is due to the voice marking (see Collins 2016 for elaboration on this point).

  – The actor voice and patient voice versions of a sentence are pragmatic alternatives.

  – Pragmatic enrichment of actor voice sentences (i.e., nonuniqueness implicature of GenPats) is derived by reasoning as in (12).

• **Evidence for the view that nonuniqueness is an implicature:** it is cancellable (13b) and reinforceable (13c). Compare the “not all” implicature of some (14).

(13)  

a. *nakakilala ako ng may-akda ng aklat na iyon...*  
   perf.av.meet nom.1sg gen author gen book lk that...  
   I met an author of that book...

b. *...at, siya lang ang nag-iisang may-akda*  
   and nom.3sg only nom only author  
   in fact, he was the only author.

c. *...at meron ibang mga may-akda bukod sa kanya*  
   and exist other pl author besides obl him  
   ...and there were other authors besides him.

(14)  

a. Some of the students passed the test, in fact all of them did (*cancellation*).

b. Some of the students passed the test, but not all (*reinforcement*).

• Sabbagh (2012) also provides many naturally occurring examples showing GenPats which don’t imply nonuniqueness, showing the inference is context dependent, defeasible, and thus not conventionalized.

• In comparison, the uniqueness implication of NomPats is not felicitously cancellable or reinforceable without redundancy (15).

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1We assume $p$ and $q$ have the same asserted content. By uttering $p$, $Sp$ eliminates the possibility that $q$ is false (i.e., $q$’s presuppositions are satisfied but the truth conditional content is false).
4 Word order variations

- Constrasts like (16) (repeated from earlier) hold only or verb-initial sentences.

(16) a. **Nadiskubre** ni Karlos ang **buwan**
   PERF.PV-discover GEN Karlos NOM moon
   Karlos discovered the moon. (\(\rightarrow\) There is only one moon)

b. **Nakadiskubre** si Karlos ng **buwan**
   PERF.AV-discover NOM Karlos GEN moon
   Karlos discovered a moon. (\(\rightarrow\) There is more than one moon)

- In actor-initial sentences, the nonuniqueness implication disappears.

- (17) bias towards definite interpretation, despite the genitive patient. The indefinite interpretation is still possible, given a supporting context (e.g., an astronomy class).

(17) \[**sino**] [ang **nakadiskubre** ___ ng **buwan**]
   NOM.who NOM PERF.AV-discover GEN moon
   Who discovered the/a moon?

- Similar results for other kinds of actor-initial clause types: clefts (18a), topicalization (18b), relativization (18c) (see McFarland 1978; Schachter and Otanes 1982 for more examples)

(18) a. siya ang nagbigay ng **premyo** kay Ben
   NOM.3SG NOM PERF.AV.give GEN prize OBL Ben
   He's the one who gave the prize to Ben. (Schachter and Otanes 1982:382)

b. ikaw man o ako ay maaaring g(um)awa **niyan**
   NOM.2SG even or NOM.1SG TOP possible.LK (AV.PERF) GEN.that
   Either you or I can do that. (Schachter and Otanes 1982:421)

c. ang **lalaking nagbigay ng perang** ito sa babae
   NOM man.LK PERF.AV.give GEN money.LK this OBL woman
   The man that gave this money to the woman. (McFarland 1978:150)
• Thus the nonuniqueness implication of GenPats is sensitive to the word order of its containing clause: it is available in verb-initial clauses, but becomes less accessible in actor-initial clauses.

• Observe that in verb-initial clauses, GenPats with uniquely instantiated descriptive content are infelicitous (19a), but felicitous in actor-initial clauses (19b).

(19) a. ?nag-poprotekta ako ng mondo
   AV-protect NOM.1SG GEN earth
   ‘I protect an earth.’

b. [ako] [ang nag-poprotekta __i ng mondo]
   NOM.1SG NOM AV-protect GEN earth
   ‘I’m the one who protects the earth.’

• I argue the disappearing nonuniqueness effect is due to a failure of pragmatic enrichment.

• Agent-initial sentences in Tagalog (as in (19b)) must have the AV morpheme on the verb (and thus genitive case on the patient) due to the so-called western Austronesian ‘Extraction Restriction’ (Schachter and Otanes 1982; Georgopoulos 1985; Gerassimova 2007 a.o.).

• The restriction states that extraction of non-nominative NPs to a pre-verbal position is syntactically blocked. This means that with pre-verbal actors, the verb must have actor voice.

• Thus, extracting the nominative actor in (20a) is fine, generating a unique interpretation of ng buwan.

• However, the corresponding PV version (20b) is ungrammatical, if a genitive is extracted.

(20) a. [Siya] [ang nakadiskubre __i ng buwan]
   NOM.3SG NOM PERF.AV-discover GEN moon
   He is the one who discovered the moon.

b. [*Niya] [ang diskubre __i, ang buwan]
   GEN.3SG NOM PERF.PV-discover NOM moon

• (20a) does not pragmatically compete with its alternative (20b), because (20b) is ungrammatical.

• With this understanding, it is clear why the nonuniqueness inference odes not arise with (20a).

(21) Utterance: He is the one who discovered.AV ng moon. (= p)
Failed implicature: There is more than one moon. (i.e., nonuniqueness/nonmaximality)

a. Contextual premise: Sp knows whether or not there is more than one moon in the relevant discourse context.

b. Contextual premise: Sp is cooperative (i.e., will choose the alternative utterance which is optimal: supported by evidence, most relevant, informative, least costly etc.).

c. It is false that there is an alternative utterance q (“He is the one who discovered.PV ang moon”) which Sp could have uttered.

d. by (c), Sp has reasons for not uttering q (it is not well-formed), besides its presupposition being false.

  e. no evidence that Sp believes q’s presupposition is false.
5 Implications

- Following Heim 1991, Percus 2006, et seq., the nonuniqueness implication of indefinites can be explained by the principle *Maximize Presupposition* (MP): speakers must choose the presuppositionally strongest alternative.

\[(22)\] *Maximize Presupposition*: If \( S \) is a alternative to \( S' \), and the context \( C \) is such that:

i. the presuppositions of \( S \) and \( S' \) are satisfied within \( C \);

ii. \( S \) and \( S' \) have the same assertive content relative to \( C \);

iii. \( S \) carries a stronger presupposition than \( S' \),

then \( S \) should be preferred to \( S' \) (Schlenker 2012: 393)

- Thus well-formed actor voice and patient voice sentences are presuppositional alternatives, and if uniqueness is satisfied in a context, the PV form should be preferred by (22)

- (22) is not enough to account for the failure of nonuniqueness to arise in (20a).

- If (20a) and (20b) are pragmatic competitors, then the strengthening inference via MP should arise, as (20b) is preferable via MP

- By the reasoning in (21), the ungrammaticality of (20b) (due to the Extraction Restriction) prevents it from pragmatically competing with (20a), and thus prevents (20a)'s implicature from arising.

- Thus I advocate for grammatical well-formedness being a pre-condition for pragmatic competition, adding the clause (23) to the definition in (22).

\[(23)\] iv. \( Sp \) could have uttered either \( S \) or \( S' \).

- As the alternative (20b) is not syntactically well-formed, condition (iv) in (23) does not hold, and the strengthening inference from MP fails to arise.

- (iv) is a pragmatic principle applicable beyond Maximize Presupposition: the syntactic well-formedness of an alternative is a necessary condition for its pragmatic competition.

  - Although this notion is intuitive, convincing examples supporting this hypothesis are rare in the literature on implicatures. This paper aims to fill that gap.

6 Conclusion

- The (in)definite interpretation of Tagalog patients and their sensitivity to word order has been a persistent puzzle in Austronesian linguistics. I propose a pragmatic solution:

  - Speakers and hearers reason about the choice between actor voice and patient voice variants of sentences.

  - Where a speaker chooses actor voice over patient voice, she implicates that the uniqueness implication of the nominative patient doesn't hold.

  - However, if PV is morphosyntactically blocked, the AV sentence isn't pragmatically enriched.

- The Tagalog data provides evidence that alternatives must be grammatically well formed to enter into pragmatic competition, and that syntactic information must be available for the pragmatic component of interpretation.
References


Gerassimova, Veronica. 2007. Unbounded dependency constructions in Western Austronesian. PhD diss, University of Michigan, Ann Arbor.


