The mysterious case of disappearing indefiniteness ∗

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1 Introduction

Goals for this talk:

• Address the longstanding puzzle of definite and indefinite interpretations of NPs in Tagalog, and their interaction with word order and verbal morphology.
• Argue that indefinite interpretations of certain NPs arise via pragmatic competition with definite NPs.
• Illustrate a paradigm where the definite NP is morphosyntactically blocked, and thus the pragmatic competition does not arise.
• Propose a compositional semantics and an account of pragmatic enrichment of Tagalog definites and indefinites.

1.1 The Tagalog voice system

• In focus: the well-known voice-system of Tagalog and of Western Austronesian languages more broadly.
• Only one argument or oblique may be the "pivot".
• The thematic role of the pivot is marked on the verb (e.g., if the thematic actor is the pivot, the verb takes actor-voice, if the location is the pivot, the verb takes location-voice etc).
• Pivot NPs marked with ang, other argumental NPs (glossed npivot) marked with ng.
• The pivot gets a definite interpretation if it is a non-quantificational NP.

(1)

a. b(um)ilí ng saging ang lalaki sa tindahan para sa unggóy.
   \( (\text{av.perf})=\text{buy npivot banana pivot man obl store for obl monkey} \)
   ‘The man bought banana at the store for the monkey.’

b. b(in)ilí ang saging ng lalaki sa tindahan para sa unggóy.
   \( (\text{pv.perf})=\text{buy pivot banana npivot man obl store for obl monkey} \)
   ‘The man bought the banana at the store for the monkey.’

c. b(in)ilí=an ng saging ng lalaki ang tindahan para sa unggóy.
   \( (\text{perf})=\text{buy=lv npivot banana npivot man pivot store for obl monkey} \)
   ‘The man bought banana at the store for the monkey.’

• Only pivots may appear in a pre-verbal position (e.g., by relativisation, wh-questions, raising, topicalization).

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†The term pivot from Foley and Van Valin 1984 remains neutral as to whether this argument is a subject.
• If a verb comes between a filler-gap dependency, the voice of the verb must pick out the gap as its pivot.

(2) a. \( b/(in)\)\(\text{i}g\)\(y=\)\(\text{ang}\) \(\text{ng}\) sundalo \(\text{ng}\) pera \(\text{ang}\) babae
\(\text{PERF}\)\(=\text{give}\)\(=\)LV NPIVOT soldier NPIVOT money PIVOT woman

‘The soldier gave the money to the woman.’

b. \(\text{ang}\) babae\(=\)\(\text{ng}\) \(b/(in)\)\(\text{i}g\)\(y=\)\(\text{ang}\) \(\text{ng}\) sundalo \(\text{ng}\) pera ___
PIVOT woman=COMP \(\text{PERF}\)\(=\text{give}\) LV NPIVOT soldier NPIVOT money

‘The woman that the soldier gave the money to.’

c. \(\text{ng}/\text{ang}\) babae\(=\)\(\text{ng}\) \(i=b/(in)\)\(\text{i}g\)\(ay\) \(\text{ng}\) sundalo \(\text{ang}\) pera ___
NP\(\text{IVOT/PIVOT}\) woman=COMP PV\(=\)\(\text{PERF}\)\(=\text{give}\) NPIVOT soldier PIVOT money

‘The woman that the soldier gave the money to.’

d. \(\text{ng}/\text{ang}\) pera\(=\)\(\text{ng}\) \(b/(in)\)\(\text{i}g\)\(y=\)\(\text{ang}\) \(\text{ng}\) sundalo ___, \(\text{ang}\) babae
NP\(\text{IVOT/PIVOT}\) money=COMP \(\text{PERF}\)\(=\text{give}\) LV NPIVOT soldier PIVOT woman

‘The soldier gave the money to the woman.’

1.2 Definiteness and word order

• In V1 clauses, the definiteness of the transitive patient is determined by the voice morphology on the verb.
• If the verb has actor-voice morphology, it picks out the thematic actor as the pivot. The patient is interpreted as a scopally non-specific indefinite.

(3) a. \(k/(um)\)\(\text{ain}\) ang lalaki \(\text{ng}\) isda
\(\text{AV.PERF}\)\(=\text{eat}\) PIVOT man NPIVOT fish

‘The man ate fish.’

b. hindi \(k/(um)\)\(\text{ain}\) ang lalaki \(\text{ng}\) isda
\(\text{not}\) \(\text{AV.PERF}\)\(=\text{eat}\) PIVOT man NPIVOT fish

‘The man didn’t eat any fish.’ (never ‘there was a fish the man didn’t eat’)

• Inherently definite NPs (e.g., pronouns, proper names) are infelicitous in this position.

(4) a. \#t\(/(um)\)\(\text{awag}\) ang lalaki ni Juan
\(\text{AV.PERF}\)\(=\text{call}\) PIVOT man NPIVOT Juan

‘The man called Juan.’

b. \#t\(/(um)\)\(\text{awag}\)=ko ang lalaki
\(\text{AV.PERF}\)\(=\text{call}\)\(=\)1SG.NPIV PIVOT man

‘The man called me.’

• If the transitive verb has patient-voice morphology, it picks out the thematic patient as the pivot. The patient is interpreted as a definite.

(5) a. \(k/(in)\)\(\text{ain}\) \(\text{ng}\) lalaki \(\text{ang}\) isda
\(\text{PV.PERF}\)\(=\text{eat}\) NPIVOT man PIVOT fish

‘The man ate the fish.’

b. hindi \(k/(in)\)\(\text{ain}\) \(\text{ng}\) lalaki \(\text{ang}\) isda
\(\text{not}\) \(\text{PV.PERF}\)\(=\text{eat}\) NPIVOT man PIVOT fish

‘The man didn’t eat the fish.’

• Thus, transitive verbs with actor-voice morphology (3a,b) are associated with non-specific indefinite patients.
• Surprisingly however, in sentences with pre-verbal actor NPs, the transitive patient NP may be interpreted either as a definite or indefinite, despite the presence of actor-voice.
• Thus, in actor-initial sentences, the *indefiniteness restriction on actor-voice patients disappears*.

(6) a. \( k \langle \text{um} \rangle \text{ain} \) ang lalaki ng isda
\( \langle \text{AVPERF} \rangle = \text{eat} \) PIVOT man NPivot fish
‘The man ate (#the) fish.’
b. ang lalaki, ay \( k \langle \text{um} \rangle \text{ain} \) ___ ng isda
PIVOT man TOP \( \langle \text{AVPERF} \rangle = \text{eat} \) NPivot fish
‘It is the man who ate (the) fish.’

• Key question: why would the syntactic position of the actor NP alter the range of interpretations of the patient NP?

Plan

• Discuss the implications of Tagalog (in)definites, identifying which are conventionalized meanings and which arise pragmatically.
• Provide an account of the semantics of definite and indefinite NPs.
• Provide evidence that non-specificity of transitive patients in V1 clauses is via pragmatic enrichment.

2 Probing the meaning of patients

Goals:

• Systematic investigation of the actual interpretations of pivot vs. non-pivot patients, and which implications come and go depending on the syntactic context.
• The focus of the discussion is at first restricted to NPs without an overt quantifier.
• In order to investigate the precise meaning contrasts between the two kinds of patients, I will tease apart what I take to be two ingredients of definiteness, namely the implication of *existence* and *uniqueness*.

\[
(7) \textbf{existence}(P) = |P| \geq 1
\]
A sentence implies *existence* with respect to property \( P \) if there is at least one individual who instantiates \( P \).

• Do either AV (actor-voice)-sentences or PV (patient-voice)-sentences imply *existence*?
• i.e., presented with an AV-sentence or PV-sentence, would a rational agent infer that *existence* holds?

(8) [Context: Only police officers who have arrested a criminal may attend the annual Christmas party.]

a. na=huli ni Carlos ang magnanahaw
PV.PERF=catch NPivot Carlos PIVOT thief
‘Carlos caught the thief.’ (*Can Carlos attend the party?: Yes*)
b. naka=huli si Carlos ng magnanahaw
AV.PERF=catch PIVOT Carlos PIVOT thief
‘Carlos caught a thief.’ (*Can Carlos attend the party?: Yes*)

• Indirect question used: avoiding the awkwardness of directly asking a question like *does this sentence imply that thieves exist?* If the consultant believes that Carlos may attend the party, this entails that thieves exist.
• Thus, both actor-voice and patient-voice variants in (8) imply *existence* with respect to the NP-content.
• Still an open question whether the implication comes about via presupposition, assertion, implicature etc.
(9) **(weak) uniqueness**($P$) = $|P| \leq 1$
A sentence implies *weak uniqueness* with respect to property $P$ if there are at most one individuals who instantiate $P$.

(10) [Context: Maria is looking for treasure in a house with many rooms. She knows that the treasure is hidden in a room with two or more windows, but she doesn’t know which room the treasure is hidden in. Juan tells her about one of the rooms:]

a. `na=basag ko ang bintanang nasa kuwarto`
   `PERF.PV=break 1SG.NPIV PIVOT window.COMP LOC room`
   `I broke the window in that room.'
   **JC:** Could this be the room with the treasure?
   **Comment:** It's not definitive, there could be more than one window.
   **JC:** Does it suggest there's more than one window? **C:** No.
   **JC:** Does it suggest the opposite, that there's only one window? **C:** Yes, it suggests that.

b. `b⟨um⟩asag ako ng bintanang nasa kuwarto`
   `(AV.PERF).break 1SG.PIV NPIVOT window.COMP LOC room`
   `I broke a window in that room.'
   **JC:** Could this be the room with the treasure?
   **Comment:** It suggests there's more than one window.

- **Patients of PV-verbs** (10a) imply *uniqueness*, while patients of AV-verbs do not. In fact they imply the opposite, *antiuniqueness*.

(11) **antiuniqueness**($P$) = $|P| > 1$
A sentence implies *antiuniqueness* with respect to property $P$ if there is more than one individual who instantiates $P$.

- There is evidence that the *antiuniqueness* implication of AV-verb patients is not an entailment, but arises pragmatically: the *antiuniqueness* implication is cancellable (12b) and reinforceable (12c).

(12) a. `nag=tayo si Carlos ng unibersidad na nasa Antarktika...`
   `(AV.PERF)=found PIVOT C. NPIVOT university COMP at/in Antarctica`
   `Carlos founded a university in Antarctica...`

b. `...sa totoo, yaon lang ang nag-isang unibersidad sa antartika`
   `in fact, that only PIVOT only university LOC Antarctica`
   `...in fact, that is the only university in Antarctica.'

c. `...at meron ibang mga unibersidad bukod sa kanya`
   `and exist other COMP PL university besides LOC his`
   `...and there are other universities besides his one.'

- Compare the cancellation/reinforcement of the **NOT ALL** implicature of **some**.

(13) 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).

- Thus the *antiuniqueness* implication of AV-patients behaves like a conversational implicature.
- On the other hand, the *uniqueness* implication of PV-patients isn't cancellable or reinforceable without redundancy, suggesting PV-patients encode for *uniqueness* as part of their conventional meaning.
a. tinayo ni Carlos ang unibersidad na nasa Antartika...
   ‘Carlos founded the university in Antarctica...’

b. ...(?sa totoo, yaon lang ang nag-iisang unibersidad sa antartika in fact, that only university LOC Antarctica
   ‘...in fact, that is the only university in Antarctica.’ (Comment: Sounds redundant)

c. ...(?at meron ibang mga unibersidad bukod sa kanya and exist other COMP PL university besides LOC his
   ‘...and there are other universities besides his one.’ (Comment: Sounds sort of weird, but I would understand.)

• Likewise, cancellation of the existence implication of either kind of patient fails, suggesting the existence implication is part of the conventional meaning of both kinds of patients.

a. Na=basag ko ang bintanang nasa kuwarto. #Walang bintana.
   ‘I broke the window in that room. #There is no window.’

b. b⟨um⟩asag ako ng bintanang nasa kuwarto. #Walang bintana.
   ‘I broke a window in that room. #There is no window.’

• So existence is entailed by both AV- and PV-patients, while uniqueness is entailed by PV-patients. But are these entailments presupposed or at-issue?

• In embedded contexts (conditionals (16a), negation (17a), also modals, questions), the uniqueness and existence implications of PV-patients “projects”.

• The existence implication of the AV-patient embeds below the higher operator (16b, 17b).

a. Maininis si Maria kung p(in)a=tugtog ni Juan ang rekord
   ‘Maria will be annoyed if Juan plays the record.’ (Comment: If Juan plays a certain record, Maria will get annoyed.)
   |= There is a unique record

b. Ma=iinis si Maria kung magpa=tugtog si Juan ng rekord
   ‘Maria will be annoyed if Juan plays any record.’
   |= There is a record

a. Hindi i=bunod ni Maria ang bulakak
   ‘Maria didn’t pick the flower.’
   |= There is a unique flower

b. Hindi b⟨um⟩unod si Maria ng bulakak
   ‘Maria did not pick a flower.’
   |= There is a flower.

• Preliminary evidence that the existence and uniqueness implications of PV-patients are presupposed.

• A diagnostic supporting this intuition

   – Karttunen (1976) filtering sentences: if a sentence $S$ presupposes $p$, a conditional sentence of the format “if $p$, then $S$” does not presuppose $p.
kung may diario sa mesa, ba=basa=hin ng nanay ko ang diario

‘If there is a newspaper on the table, then my mother read the newspaper.’

\[ \neg \text{there is a newspaper} \]

- In contrast, (16b,17b) suggest that the existence implication of the AV-patient is an at-issue entailment, interacting with operators like conditionals and modals.

<table>
<thead>
<tr>
<th>existence</th>
<th>uniqueness</th>
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<tbody>
<tr>
<td>PV-patients</td>
<td>entailed (supposed)</td>
</tr>
<tr>
<td>AV-patients</td>
<td>entailed (at-issue)</td>
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2.1 A note on uniqueness

- The proposal is that uniqueness is presupposed by the PV-patient.
- But consultants are hazy on whether PV-patients are acceptable in contexts which do not support uniqueness.
- In contrast, PV-patients are flatly unacceptable in contexts which don’t support existence. Why is one presupposition "stronger" than the other?
- Compare English the, which is also analysed as presupposing existence and uniqueness (Strawson 1950, Sharvy 1980). The same worry arises:

(20) a. I broke the window. #In fact, there was no window.
    b. I broke the window. (?)In fact, there was more than one window.
    c. I broke the window, #and there was a window.
    d. I broke the window, (?)and there was only one window.

- A well known fact that definite descriptions with the are routinely acceptable in contexts where more than one individual fits the description (“incomplete descriptions”).
- Explanation in terms of quantifier domain restriction (von Fintel 1994, Stanley and Szabo 2000).

(21) the \( P \) is defined iff \(|P \cap C| = 1\), where defined the \( P \) denotes the unique \( d \in P \cap C \)

- In contexts not supporting uniqueness for \( P \) (i.e., contexts with more than one member of \( P \)), select a set \( C \), such that \( P \cap C \) has only one member.
- No such rescue strategy is available for contexts not supporting existence for \( P \) (i.e., contexts with no members of \( P \)). If \( P \) is empty, intersecting with \( C \) doesn’t help!
- Therefore, as there is flexibility in accommodating the uniqueness presupposition in English, it shouldn’t be surprising that the same is true in Tagalog.

3 A semantics for PV-patients: ang = the?

- Evidence suggests PV-patients (marked with ang) presuppose existence and uniqueness (with context dependent flexibility).
- Does this mean ang has the same semantics as the?

(22) ang \( P \) is defined iff \(|P| = 1\), where defined ang \( P \) denotes the unique \( d \in P^2 \)

- No. The definiteness of PV-patients with ang disappears when the NP is overtly quantified.

\(^2\)With a domain restrictor: ang \( P \) is defined iff \(|P \cap C| = 1\), where defined ang \( P \) denotes the unique \( d \in P \cap C \)
In the following examples, putting the numeral *isang* ‘one’ in the NP removes the presuppositions of uniqueness and existence.

(23) \(\text{In=atake at } k\langle\text{in}\rangle\text{agat ng isang nakawalang unggoy [ang isang bata] sa }\)
\(\text{PERF.PV=attack and } \langle\text{PV.PERF}\rangle\text{.kill } \text{NP} \text{pivot one runaway monkey } \text{PV} \text{pivot one child } \text{LOC}\)
\(\text{Batac, Ilocos Norte.}\)
\(\text{Batac, Ilocos Norte.}\)

‘A runaway monkey attacked and killed a child in Batac, Ilocos Norte.’

(24) \(\text{hindi } k\langle\text{in}\rangle\text{ain ni } \text{John [ang isang cookie]. Walang cookie.}\)
\(\text{not } \langle\text{PV.PERF}\rangle\text{.eat } \text{NP} \text{pivot John } \text{NP} \text{pivot one cookie. no cookie.}\)

‘John didn’t eat any cookies. There were no cookies.’

(25) \(\text{Maiinis si Maria kung } p\langle\text{in}\rangle\text{a=tugtog ni } \text{Juan [ang isang rekord]}\)
\(\text{AV=FUT.annoyed } \text{NP} \text{pivot Maria if } \langle\text{PV}\rangle\text{.caus=play } \text{NP} \text{pivot Juan } \text{NP} \text{pivot one record}\)

‘Maria will be annoyed if Juan plays any record.’ \(\not\exists\) There is a unique record

**Disappearing definiteness:**

- *ang NP* (as the patient of a PV-verb) is definite. *ang NUM NP* is indefinite.
- If *ang* had the definite semantics in (22), we must account for why the addition of the numeral removes the presuppositional content of *ang*.
- Under this analysis, the numeral would have to somehow delete the uniqueness/existence presupposition.
- An alternative analysis without “presupposition deletion”
  - PV-verbs denote relations between individuals and must compose with *e*-type arguments.
  - *ang* is semantically vacuous (only serves to mark morphological case).
  - Bare NPs with *ang* (which denote ⟨*e,t*⟩-type properties) therefore are unable to compose with PV-verbs.

(26) \(\text{VP}\)
\(\text{?}\)
\(\text{V}\)
\(\lambda \text{.meet}(y, z)\)
\(\lambda x. \text{monkey}(x)\)
\(\text{nakilala}\)
\(\text{K}\)
\(\lambda \text{x.NP}(x)\)
\(\lambda \text{.monkey}(x)\)
\(\text{ang}\)
\(\text{unggoy}\)

The type-shifting operator \(\iota\) (iota) is employed to resolve the compositional problem (cf. Partee 1986, Chierchia 1998, Coppock and Beaver 2012 etc).

- \(\iota\) has the semantics of the definite determiner.

(27) \(\iota(P)\) is defined iff \(|P| = 1\), where defined \(\iota(P)\) denotes the unique \(d \in P\)

\(^3\)http://rp.abs-cbnnews.com/video/nation/regions/09/06/15/unggoy-nakawala-kinagat-ang-isang-bata

\(^4\)More explicitly \(\iota_C(P)\) is defined iff \(|P \cap C| = 1\), where defined \(\iota_C(P)\) denotes the unique \(d \in P \cap C\)
Therefore, the definiteness of ang NP expressions arises via the type-shifting rescue strategy iota, and not by the semantics of ang NP itself.

But ang and iota often go hand in hand as in (28), accounting for the association of ang with a definite semantics.

When the compositional problem in (26) doesn’t arise, the type-shifting rescue strategy isn’t possible and definiteness will also not arise.

When the NP is quantified by isang (with the semantics of English ‘one’ or ‘some’), the NP may compose with the transitive verb without iota (e.g., via QR (Heim and Kratzer 1998) or type-raising (Hendriks 1993)).

Upshot:

- PV-patients are only definite if they are bare NPs (case-marked by ang). Quantificational NPs may be indefinite.
- My account:
  - PV-verbs denote relations between individuals.
  - ang NP phrases are property types, may not compose with PV-verbs.
  - ang NP phrases may type-shift via iota in order to compose with the PV-verb, therefore, the definite semantics arises in the composition, rather than in the lexical semantics of the relevant morphemes.
  - quantified NPs do not need to type shift via iota, thus definiteness is correctly predicted to not arise.
4 The semantics and pragmatics of AV-patients

- PV-patients are narrow scope indefinites, they necessarily scope underneath sentential operators (negation, conditionals, modals, etc.)

\[(30) \text{Ma} = \text{ininis si } \text{Maria kung magpa} = \text{tugtog si Juan ng rekord} \]
\[\lambda x. \exists y [\text{monkey}(y) \land \text{meet}(x, y)] \land \text{V fut} \text{.annoned pivot Maria if AV caus} = \text{play pivot Juan npivot record} \]
\[\rightarrow \text{‘Maria will be annoyed if Juan plays any record.’} \]
\[\not\rightarrow \text{ ‘There is a record s.t. Maria will be annoyed if J. plays it.’} \]

\[(31) \text{Puwede } b (\text{um}) \text{unod si Maria ng bulakak} \]
\[\lambda x. \exists y [\text{pick pivot Maria npivot flower}] \land \text{ent perf} = \text{pick pivot Maria npivot flower} \]
\[\rightarrow \text{‘Maria can pick a flower.’ (Mary can pick a flower, doesn’t matter which flower.)} \]
\[\not\rightarrow \text{ ‘There is a flower s.t. Maria can pick it.’} \]

\[(32) \text{hindi } b (\text{um}) \text{asag si Juan ng bintana} \]
\[\lambda x. \exists y [\text{break pivot Juan npivot window}] \land \text{ent perf} = \text{break pivot Juan npivot window} \]
\[\rightarrow \text{‘Juan didn’t break any window.’} \]
\[\not\rightarrow \text{ ‘There is a window that Juan didn’t break.’} \]

- An analysis:
  - Following Van Geenhoven 1998, Chung and Ladusaw 2004: narrow scope indefinite patients denote simple \langle e, t \rangle-type properties.
  - Actor-voice morpheme is an overt instantiation of Van Geenhoven’s semantic incorporation type-shifter:
  - AV-verbs denote relations between individuals \( x \) and properties \( P \), such that \( x \) acted in the manner specified by the verb on an individual \( y \) who has the property \( P \).
  - Therefore, the existential quantification is introduced in the verb meaning, rather than in the meaning of the patient.

\[(33) \lambda x. \exists y [\text{monkey}(y) \land \text{meet}(x, y)] \]

- Like \text{ang}, \text{ng} is a case marker with no semantic content.
- As the existential quantifier is introduced in the meaning of the verb itself, it necessarily scopes below higher operators such as negation.
\[
\neg \lambda x. \exists y [\text{monkey}(y) \land \text{meet}(x, y)]
\]

- This semantics for actor-voice morphology doesn’t include any existence or uniqueness presupposition, only an assertion of existence (|P| \geq 1) – compatible with both uniquely and non-uniquely instantiated values for P.
- Below I propose that the anti-uniqueness effect is derived via pragmatic reasoning.

### 4.1 Anti-uniqueness

- **Key puzzle:** In verb-initial sentences, AV-patients implicate antiuniqueness.
- In actor-initial sentences, this effect disappears.
- If prior world knowledge entails that the descriptive content of the AV-patient is uniquely instantiated, a V1 sentence is infelicitous (36).

\[
p\langle \text{in} \rangle a = \text{protekta} = \text{han} \ko \ang \text{mundo} \\
\text{PERF.CAUS=} \text{protect=} \text{PV} \ 1SG.NPIVOT \ PIVOT \ \text{world} \\
\text{‘I protect the earth.’}
\]

\[
#nag = \text{protekta} \ ako \ ng \ mundo \\
\text{PERF.AV=} \text{protect} \ 1SG.PIVOT \ NPIVOT \ \text{world} \\
\text{‘#I protect an earth.’ (Comment: ‘sounds like a galactic being or something’)}
\]

- An actor-initial variant of this sentence is felicitous

\[
sino \ ang \ nag = \text{protekta} \ ng \ mundo \\
\text{who} \ PIVOT \ \text{PERF.AV=} \text{protect} \ \text{NPIVOT} \ \text{world} \\
\text{‘Who (is the one that) protects the earth?’}
\]

- The pair in (35,36) is reminiscent of similar English pairs with the and a.
- Evidence that a also triggers an antiuniqueness effect.

a. I protect the earth.
   
   b. #I protect an earth.

a. My father is happy.
   
   b. #A father of mine is happy.

\footnote{\(37\) is a wh-question but the effect holds for raising, relativization, topicalization etc.}
(Heim 1991, Sauerland 2006, a.o.): The (a) and (b) sentences are alternatives in pragmatic competition.

<table>
<thead>
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<th>Alternatives:</th>
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<tr>
<td>If $S$ and $S'$ are alternative utterances, a cooperative speaker will prefer to use $S$ instead of $S'$ if $S$ makes a better contribution than $S'$ in terms of truth, informativity, relevance, brevity etc.</td>
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- By a pragmatic principle *Maximize Presupposition*, the alternative with the strongest presuppositions is preferred.

(41) **Maximize Presupposition** (formulation from Chemla 2008):
Among a set of alternative sentences, use the felicitous sentence with the strongest presuppositions.

- At this point (41) is left as a primitive stipulation and isn't derived from existing principles.
- The general reasoning pattern with *Maximize Presupposition*:
  - A speaker utters a sentence $S_1$ with an alternative $S_2$.
  - They have equivalent asserted content.
  - The presupposition $p$ of $S_2$ is stronger than the presupposition of $S_1$.
  - Hearer infers that $S_2$ must be infelicitous – presupposition $p$ must be false.

- Assuming that $a$ and the are lexicalised as alternatives, then *I protect an earth* and *I protect the earth* are competing alternative utterances.
- By the principle *Maximize Presupposition*, *I protect an earth* implies that the presupposition of *I protect the earth* is false.
- This implicates that the speaker believes there is more than one earth, contradicting world knowledge and creating infelicity.

- **Tagalog**:
  - The actor-voice morpheme and patient-voice morpheme are pragmatic competitors.
  - The patient-voice morpheme is associated with uniqueness and existence presuppositions (introduced by the iota type-shifter). The actor-voice morpheme isn’t associated with a presupposition.
  - An utterance of (36) will implicate that a presupposition of (35) is false via *Maximize Presupposition*, i.e., implicating there is more than one earth, creating infelicity.

- Via *Maximize Presupposition*, we also derive the anti-uniqueness effect.
- (42) and (43) are pragmatic competitors: derived by switching out the voice morpheme.

(42) $Na=$basag $ko$ $ang$ $bintanang$ $nasa$ $kuwarto$.  
PERF.PV=break 1SG.NPIV Pivot window.COMP LOC ROOM  
*I broke the window in that room.*

(43) $b(...)$asag $ako$ $ng$ $bintanang$ $nasa$ $kuwarto$  
(AV.PERF).break 1SG.PIV NPivot window.COMP LOC ROOM  
*I broke a window in that room.*

- (42) presupposes $|\text{window}| = 1$, while (43) has no (relevant) presupposition, but asserts that $|\text{window}| \geq 1$.
  - A hearer of (43) reasons that (42) is a pragmatic alternative.
  - By *Maximize Presupposition*, the speaker would have used the felicitous alternative with the strongest presupposition (i.e., 42).
  - As the speaker did not use (42), she must believe the presupposition is false.

- By this reasoning, the implicature $|\text{window}| \neq 1$. As the asserted content of (43) ensures that window is non-empty, the implicature is $|\text{window}| > 1$, i.e. *antiuniqueness*.  

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4.2 The actor-initial effect

- actor-initial sentences allow specific and non-specific readings of patients.

(44) *sino/ang/nag=protekta/ng/mundo
    who PIVOT PERF.AV=protect NPIVOT world
    ‘Who (is the one that) protects the earth?’

- If actor-voice and patient-voice morphemes are pragmatic competitors, than (45) should be the alternative to (44).

(45) *sino/nino/ang/p(in)a=protekta=han/ang/mundo
    who PIVOT PERF.CAUS=protect=PV PIVOT world
    ‘Who (is the one that) protects the earth?’

- But (45) is ungrammatical – voice-morpheme must pick out the pre-verbal NP as a pivot, therefore actor-initial sentences must have actor-voice.

- As (44) is the only option for speakers, there is no stronger alternative.

- No alternative sentence “does better” in terms of Maximize Presupposition, so (44) is felicitous, despite the inherent uniqueness of the patient.

- Likewise, we can account for the disappearance of the anti-uniqueness effect in actor-initial sentences.

(46) ang/laTalaki ay b⟨um⟩asag/ang/bintanang/nasa/kuwarto
    PIVOT man TOP ⟨AV.PERF⟩.break NPIVOT window.COMP LOC room
    ‘It was the man who broke a/the window in that room.’ (may be one or more windows)

- Under the present account, (46) asserts that |window| ≥ 1

- Again, the patient-voice variant is ungrammatical.

(47) *ang/ng/laTalaki ay na=basag/ang/bintanang/nasa/kuwarto
    PIVOT/NPIVOT man TOP PERF.PV=break PIVOT window.COMP LOC room
    ‘It was the man who broke a/the window in that room.’

- Thus, a hearer of (46) cannot reason that the ungrammatical (47) is a possible alternative and so the hearer cannot conclude that the presupposition of (47) is false.

- The meaning of (46) thus does not get enriched by an antiuniqueness implicature. Its unenriched meaning (|window| ≥ 1) is compatible with there being one or more windows.

Upshot:

- AV-patients are simple existentially quantified without a presupposition.

- AV-sentences pragmatically compete with PV-sentences, which encode a uniqueness presupposition (via the type-shifter iota).

- By the pragmatic principle Maximize Presupposition, hearers of AV-sentences reason that the uniqueness presupposition of the corresponding PV-sentence must be false, deriving the antiuniqueness implicature.

- This effect disappears when the corresponding PV-sentence is ungrammatical, e.g., in actor-initial sentences, deriving the effect of word order variation of the definiteness of the patient.
5 Summary

- Definiteness and specificity in Tagalog has been a persistent puzzle in Austronesian linguistics.
- Definiteness implications of transitive patients seem to vanish and appear in mysterious circumstances.
- I propose:
  - Patient-voice verbs do not encode for definiteness or specificity, but definiteness arises via type-shifting in the semantic composition.
  - The definiteness effect is alleviated if the transitive patient is quantified, in which case it may successfully compse with the verb without type-shifting.
  - Actor-voice patients are narrow scope indefinites, I account for this by proposing that actor-voice verbs introduce an existential quantifier in their meanings.
  - The anti-uniqueness implicature of actor-voice patients arises via pragmatic competition with the corresponding patient-voice sentence.
  - When the corresponding patient-voice sentence is ungrammatical, pragmatic competition fails and the anti-uniqueness effect no longer arises.

References

Coppock, E. and D. Beaver. 2015. Definiteness and determinacy. Ms., University of Gothenburg and University of Texas at Austin.


