Reasoning about definiteness without articles

James N. Collins
Stanford University

Semantics and Linguistic Theory 26
UT Austin
May 12, 2016

1 The issues

Three puzzles relating to pragmatic competition between definites and indefinites (cf. Heim 1991, 2011; Grønn and Sæbø 2012; Horn and Abbott 2013; Beaver and Coppock 2015; Coppock and Beaver 2015, etc.)

- **Lexical resources**: Does competition still arise in languages where definiteness is not signalled by articles?
- **Type-coercion**: How does pragmatic competition arise where definiteness is derived via type-shifting?
- **Well formedness**: Is pragmatic competition sensitive to the grammaticality of competing expressions?

The goal: a case study in Tagalog which motivates the following notion of pragmatic competition:

- Pragmatic competition must be sensitive to the grammatical well-formedness of alternatives: alternatives must be grammatical in order to compete.
- In cases where meanings are not associated with particular morphemes but with complex constructions, deriving certain implicatures must involve comparison between syntactically complex expressions.
- For such cases, comparing the meanings of isolated lexical items is not sufficient in deriving the implicature (Schlenker 2012; Singh 2011, cf. Percus 2006).

Roadmap

§2 Introduction to Tagalog voice/case
§3 Nonuniqueness implicatures in verb-initial sentences
§4 Deriving these implicatures with *Maximize Presupposition*
§5 The notion of syntactic complexity in implicature calculation
§6 Word order effects on the Tagalog nonuniqueness implicature

*With thanks to Geraldine Baniqued, Johann Carlos Sulit Barcena, Luvee Hazel Calventas-Aquino, Jo Castro, Valerie Gamao, Ginalyn Garcia, Anne Jelai, Fely Morallo, and Catherine Tadina for their time and generosity as consultants. Thanks to Cleo Condoravdi, Christopher Potts, Paul Kiparsky, Ivano Caponigro, Dylan Bumford, Lelia Glass, Vera Gribanova, Masoud Jasbi, Sven Lauer, audiences at UC Berkeley Syntax-Semantics Circle (2015), BLS 42 (2016), Stanford (2016), and six anonymous reviewers for SALT 26.*
2 Definiteness, case, and voice

In Tagalog the definiteness of the transitive patient NP is not signalled by articles, but by an interaction of case and voice morphology. How can we derive this compositionally?

- Verb takes patient voice (signalled by ⟨in⟩ in (1a)) when patient is nominative (signalled by ang in (1a)).
- Verb takes actor voice (signalled by ⟨um⟩ in (1b)) when patient is genitive (signalled by ng in (1b)).

(1) a. T⟨in⟩ago ko ang kompyuter
   ⟨pv.perf⟩.hide 15G NOM computer
   I hid the computer.

b. T⟨um⟩ago ako ng kompyuter
   ⟨av.perf⟩.hide 15G GEN computer
   I hid a computer.

Bare nominative patient NPs (BNomPats) are interpreted as presuppositional definites. Bare genitive patient NPs (BGenPats) are interpreted as narrow scope indefinites (Collins 2016a,b; Paul et al. 2016).

<table>
<thead>
<tr>
<th>Patient voice</th>
<th>Patient interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>definite</td>
</tr>
<tr>
<td>genitive</td>
<td>indefinite</td>
</tr>
</tbody>
</table>

Analysis in Collins 2016a:

- Bare NPs (nominative or genitive) interpreted as ⟨e,t⟩-type properties.
- Nominative NPs move from thematic position to a syntactically higher position (Guilfoyle et al. 1992; Pearson 2005; Erlewine et al. 2015, etc.)
- BNomPats shift to e-type (definite) meaning via iota (Partee 1987).

(3) IP
    ┌─────┐
    │ I'  │
    │      │
    │ NP   │
    │      │
    │ pv.hide 15G │ NOM computer
    └───┬───┘
    │  └───┬───┘
    │     │
    │ λ.x.hide(Sp,x) : ⟨e,t⟩

(4) VP
    ┌─────┐
    │ V    │
    │      │
    │ NP   │
    │      │
    │ av.hide │ GEN computer
    └───┬───┘
    │  └───┬───┘
    │     │
    │ λ.P.λ.y.some(P)(λ.x.hide(y,x)) : ⟨et,et⟩

- Genitive NPs remain in-situ, existentially quantified by the verb (cf. Van Geenhoven 1998). No type-shifting of NP takes place.

- Neither definite BNomPats nor indefinite BGenPats signal (in)definiteness via articles.
- These effects can be derived compositionally via type-coercion in the compositional semantics.

---

1 I focus on the meanings of av and pv here, though other voices exist which assign non-subcategorized NPs nominative case, such as locative voice, instrumental voice, etc. Note that ng is pronounced like nang.
3 Uniqueness and nonuniqueness

Like typical definites, BNomPats imply their descriptive content is uniquely instantiated while BGenPats often imply their descriptive content is nonuniquely instantiated.

- Uniqueness is conventionally encoded by BNomPats as a presupposition.
- Nonuniqueness implication of BGenPats arises pragmatically as an implicature.

3.1 BNomPat uniqueness

- BNomPats (due to *iota*) trigger presuppositions: sentences with BNomPats impose a condition that interlocutors take the unique instantiation of the BNomPat for granted.
- Consultants judged BNomPats in a context (5) where the BNomPat {was | was not} uniquely instantiated. Felicity improved in contexts supporting uniqueness.

(5) Context: Maria is calling an insurance agent about her damaged car. The insurance agent asks Maria which part of the car is damaged. Maria says: ((6a) | (6a))

   PV.damage GEN.1SG NOM tire
   I damaged the tire. (Example comment: It’s unhelpful, she should answer which part.)

   PV.damage GEN.1SG NOM steering.wheel
   I damaged the steering wheel. (Example comment: That’s correct.)

- Standard tests for implicatures suggest the uniqueness implication of BNomPats is conventional, as predicted by the presuppositional account in (3).
- No re-enforcement without redundancy (7b), no cancellation without backtracking/revision (7c).

(7) a. nakilala ko ang may-akda ng aklat na iyon...
   PERF.PV.meet GEN.1SG NOM author GEN book LK that...
   I met the author of that book...

b. ...at, siya ang nag-iisang may-akda ng aklat na iyon
   and, NOM.3SG NOM only author GEN book LK that
   ...and he is the only author of that book. (Comment: you can omit at siya ang nag-iisang may-akda, it sounds redundant.)

c. ...at, meron ibang mga may-akda ng aklat na iyon bukod sa kanya
   and exist other PL author GEN book LK that besides OBL OBL.3SG
   ...and there are other authors of that book besides him. (Comment 1: It sounds like you’re saying and as a matter of fact!, Comment 2: Sounds sort of weird but I would understand.)
3.2 BGenPat nonuniqueness

- In certain contexts, BGenPats imply that their descriptive content is non-uniquely instantiated.

(8) a. Nadiskubre ni Karlos [ang buwan]\textsubscript{BNomPat}
    PERF.PV-discover GEN Karlos NOM moon
    Karlos discovered the moon. \textit{\Rightarrow} There is only one moon (in the discourse context)

b. Nakadiskubre si Karlos [ng buwan]\textsubscript{BGenPat}
    PERF.AV-discover NOM Karlos GEN moon
    Karlos discovered a moon. \textit{\Rightarrow} There is more than one moon (in the discourse context)

- In contexts where the descriptive content is mutually understood to be uniquely instantiated (via contextual assumption), the use of a BGenPat is highly marked.

(9) a. pinoprotektahan ko [ang mundo]\textsubscript{BNomPat}
    protect.PV GEN.1SG NOM earth
    I protect the earth.

b. ?nagpoprotekta ako [ng mundo]\textsubscript{BGenPat}
    AV-protect NOM.1SG GEN earth
    ?I protect an earth. (Comment: Sounds like a galactic being or something.)

- The analysis is §2 (4) does not encode nonuniqueness as part of the BGenPat semantics.

- The nonuniqueness implication may be cancelled/re-enforced (10b/c), suggesting it arises pragmatically.

(10) a. nakakilala ako [ng may-akda ng aklat na iyon]\textsubscript{BGenPat} ...
    AV-meet NOM.1SG GEN author GEN book LK that...
    I met an author of that book...

b. ...at, siya lang ang nag-iusang 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.

- The nonuniqueness implicature fails to arise in particular utterance contexts, e.g., where the descriptive content of the BGenPat is unfamiliar (cf. Heim 1991).

(11) a. nakakita ako [ng mantsa ng dugo]\textsubscript{BGenPat}
    PERF.AV-see NOM.1SG GEN stain GEN blood
    I saw a blood stain.\footnote{www.wattpad.com/176142735-minsan-may-isang-tanga-one-shot-minsan-may-isang} \textit{\Rightarrow} there are multiple stains

b. Isang araw, nakahuli si Hangdangaw [ng malaking isda]\textsubscript{BGenPat}
    one.LK day, PERF.AV.catch NOM Hangdangaw GEN large.LK fish
    One day, Hangdangaw caught a large fish.\footnote{pinoyfolktales.blogspot.com/2013/01/panitikan-ng-armm.html} \textit{\Rightarrow} there are multiple fish
• The context dependency of the nonuniqueness implicature suggests that it is not conventionally encoded.

<table>
<thead>
<tr>
<th>Patient voice</th>
<th>Patient interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>definite</td>
</tr>
<tr>
<td>genitive</td>
<td>indefinite</td>
</tr>
</tbody>
</table>

- Thus an article-free language like Tagalog demonstrates (in)definiteness distinctions which are similar to those in article languages like English.

4 Maximize Presupposition

• Here, I focus on how the nonuniqueness implicature may be derived pragmatically.

- Nonuniqueness implicatures of indefinites previously derived via competition with the definite, invoking principle of Maximize Presupposition (Heim 1991; Percus 2006; Schlenker 2012; Leahy 2016).

- The basic story:
  - Definite and indefinite variants of a sentence are alternatives (13)
  - Meanings of definite and indefinite alternatives differ only by the definite’s presupposition (13).

  (13) 
  a. Karlos discovered the moon \( \rightsquigarrow \mathcal{P}(\text{moon} = 1) \& \text{moon} \cap \{x : \text{discover}(x)(k)\} \neq \emptyset \)
  b. Karlos discovered a moon \( \rightsquigarrow \text{moon} \cap \{x : \text{discover}(x)(k)\} \neq \emptyset \)

  - Maximize Presupposition is the stipulated preference for the presuppositionally stronger alternative.

(14) Maximize Presupposition

If a sentence \( S \) is a presuppositional alternative of a sentence \( S' \) [...] 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 component relative to \( C \);
iii. \( S \) carries a stronger presupposition than \( S' \)

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

- By Maximize Presupposition, the presuppositionally stronger (13a) should be preferred to (13b).
- Discourse participants assume a speaker of (13b) is obeying MP, and thus failed to utter the preferred (13a) because its presupposition is assumed to be false.
- Therefore (13b) is pragmatically strengthened to (15)

  (15) Karlos discovered a moon \( \rightsquigarrow (\text{moon} > 1) \& \text{moon} \cap \{x : \text{discover}(x)(k)\} \neq \emptyset \)

• How do we extend this analysis to Tagalog? We need to ensure that the PV sentence (16a) and the AV sentence (16b) pragmatically compete for the purposes of Maximize Presupposition.

(16) a. \( \text{Nadiskubre ni Karlos [ang buwan]}_{\text{BNomPat}} \)  

  \( \text{PERF.PV-discover gen Karlos NOM moon} \)  

  Karlos discovered the moon. \( \rightsquigarrow \text{There is only one moon (in the discourse context)} \)
b. Nakadiskubre si Karlos [ng buwan] \( \beta_{Gen\text{Put}} \)
   \( \text{PERF.AV-discover} \quad \text{NOM} \quad \text{Karlos} \quad \text{GEN} \quad \text{moon} \)
   Karlos discovered a moon.  \( \rightsquigarrow \) *There is more than one moon (in the discourse context)*

- This ensures that the indefinite (16b) is enriched to the meaning in (15), implicating nonuniqueness.
- If the patient's descriptive content is unique by the NP's conventional meaning, e.g., with *nag-iisang 'only'*, then patient voice must be used (17a), actor voice is infelicitous.

(17) a. \( \text{kinain} \quad \text{kO} \quad [\text{ng} \quad \text{nag-iisang} \quad \text{manok}] \)
   \( \langle \text{PV.PRF}.eat \rangle \quad \text{1SG} \quad \text{NOM} \quad \text{only} \quad \text{chicken} \)
   I ate the only chicken.

b. \( \text{??kumain} \quad \text{ako} \quad [\text{ng} \quad \text{nag-iisang} \quad \text{manok}] \)
   \( \langle \text{AV.PRF}.eat \rangle \quad \text{1SG} \quad \text{GEN} \quad \text{only} \quad \text{chicken} \)
   I ate an only chicken.

- The infelicity of (17b) can be understood if we assume:
  i. discourse participants fail to reason why (17b) was chosen over (17a), and/or,
  ii. *MP* can be construed as a prohibition against uttering (17b) in contexts where the presuppositions of (17a) are satisfied (as in Heim 1991).

- We can also explain data like (18) via *MP*. Here, no nonuniqueness implicature arises.

(18) a. \( \text{nakakita} \quad \text{ako} \quad [\text{ng} \quad \text{mantsa} \quad \text{ng} \quad \text{dugo}] \)
   \( \langle \text{PV.PRF}.see \rangle \quad \text{NOM.1SG} \quad \text{GEN} \quad \text{stain} \quad \text{GEN} \quad \text{blood} \)
   I saw a blood stain.  \( \langle \text{there are multiple stains} \rangle \)

b. \( \text{Isang} \quad \text{araw}, \quad \text{nakahuli} \quad \text{si} \quad \text{Hangdangaw} \quad [\text{ng} \quad \text{malaking} \quad \text{isda}] \)
   \( \langle \text{One.LK} \quad \text{day}, \quad \text{PERF.AV.catch} \quad \text{NOM} \quad \text{Hangdangaw} \quad \text{GEN} \quad \text{large.LK} \quad \text{fish} \)
   One day, Hangdangaw caught a large fish.  \( \langle \text{there are multiple fish} \rangle \)

- Here, the NPs' descriptive content is unfamiliar. Discourse participants do not assume \( |\text{[NP]}| \geq 1 \).
- Therefore, hearers do not compare (18a,b) with their definite variants, as the existence presuppositions of the definite variants are unsatisfied. The reasoning via *MP* does not apply.

Maximize Presupposition provides an explanation of how nonuniqueness implicatures arise. These implicatures appear to arise in the same way and in the same contexts in Tagalog and English.

- This is a surprising result: how can similar pragmatic mechanisms be at work in an article language (English) and an article-free language (Tagalog)?

### 5 Interaction between implicatures and grammar

Here I provide an explanation of how pragmatic competition via Maximize Presupposition can arise in an article-free language like Tagalog. My proposal:

- In English, \( \langle a, \text{the} \rangle \) form a conventionalized scale of lexical alternatives.
- In Tagalog, \( \langle \text{AV}, \text{PV} \rangle \) form a conventionalized scale of lexical alternatives.

Below, I outline some complexities for proposing such a lexical scale in Tagalog.
5.1 Lexical scales and ordering by strength

The English scale \( \langle a, \text{the} \rangle \) is intuitive as both items can be given denotations which make their ordering by semantic strength obvious.

\[
\begin{align*}
\text{a. } a &\rightsquigarrow \lambda P. \lambda Q. P \cap Q \neq \emptyset \\
\text{b. } \text{the} &\rightsquigarrow \lambda P. \lambda Q. \partial \left( |P| = 1 \right) \& P \cap Q \neq \emptyset
\end{align*}
\]

Picking a scale in Tagalog is not as simple: there is no evidence that any individual morpheme in a patient voice sentence encodes for a definiteness presupposition.

- Nominative NPs with quantificational determiners may lack any definiteness presupposition.
- e.g., compare (20a), with a BNomPat, and (20b), with an indefinite quantified nominative patient (see Collins 2016a; Paul et al. 2016 for more details).
- Every morpheme in the presuppositional (20a) is present in the non-presuppositional (20b).

(20) a. \( T \langle \text{in ago} \rangle \text{ko} \text{ ang kompyuter} \)
   \[\text{pv.hide 1SG NOM computer} \]
   I hid the computer.

b. \( T \langle \text{in ago} \rangle \text{ko} \text{ ang isang kompyuter} \)
   \[\text{pv.hide 1SG NOM one computer} \]
   I hid a computer.

- Account: isang NP ‘one NP’ in (20b) is a non-presuppositional \( GQ \). It composes with its predicate without type-shifting via \( \iota \). Therefore, no presupposition is introduced.

\[
\begin{align*}
\text{(21) } &\Rightarrow \text{one(computer)}(\lambda x. \text{hide}(Sp, x)) \\
&\quad \lambda x. \text{hide}(Sp, x) \quad \lambda P. \text{one(computer)}(P)
\end{align*}
\]

- This analysis holds that no overt morpheme in (20a) introduces a presupposition. Instead, the presupposition is introduced by covert type-shifting (22).

\[
\begin{align*}
\text{(22) } &\Rightarrow \text{hide}(Sp, 1(\text{computer})) \\
&\quad \lambda x. \text{hide}(Sp, x) \quad 1(\text{computer}) \quad \text{compter}
\end{align*}
\]

Assuming a scale \( \langle \text{av, pv} \rangle \), we can generate the actor voice and patient voice sentence alternatives by swapping one voice morpheme out for another,\(^4\) even though the \text{av} and \text{pv} morphemes aren’t ordered by entailment.

- Following Hirschberg (1985:85), ordering via entailment is not a necessary condition for scales of lexical alternatives (contra Horn 1972), e.g., \( \langle \text{dating, engaged, married} \rangle \), \( \langle \text{type, proofread, mail} \rangle \), etc.

\(^4\)See Collins (2016b) for a way of generating alternative structures which includes swapping out one voice marker for another as well as the concomitant re-assignment of case marking involved in such an operation.
5.2 Comparing semantic strength

In calculating an implicature via MP, we must compare the semantic strength of competing expressions. The Tagalog paradigm forces a particular view of how we do this: comparisons must be made at a super-lexical level.

- **Option 1**: Compare lexical items only:
  - Percus 2006: Compare the semantic strength of competing lexical items. Comparing fully composed sentences will lead us to miss observed implicatures derivable by MP.
  - (23a) is a filtering sentence, it is non-presuppositional, despite the presence of the trigger both. It’s alternative with all (23b) is surprisingly ill-formed.

\[
\begin{align*}
\text{(23)} & \quad \text{a. Everyone with exactly two students assigned the exercise to both of his students.} \\
& \quad \text{b. \#Everyone with exactly two students assigned the exercise to all of his students.}
\end{align*}
\]

- If we compared semantic strength of (23a) and (23b) at sentence-level, (23a) would not be presuppositionally stronger than (23b).
- Percus: given a lexical scale \((\alpha, \beta)\), a sentence \(S\) containing the presuppositionally stronger \(\alpha\) is always preferred to the alternative sentence \(S'\) containing \(\beta\), so long as the presuppositions of both sentences are defined. This derive the infelicity of (23b).

- **Option 2**: Compare sentences in their local contexts:
  - Singh (2011) argues against comparing lexical items on conceptual grounds. See also Schlenker (2012:§3.2.1–2) who raises some empirical arguments.
    
    “I know of no other principles of semantics/pragmatics that display preferences among LFs that are sensitive not to their semantic or contextual meanings but rather solely to the lexical items contained within them.”
    
  - Singh maintains the comparison of presuppositional strength at the sentence level, but proposes that presuppositional strength is checked at a sentence’s local context\(^5\), accounting for data like (23)

\[
\begin{align*}
\text{(24) \textbf{Maximize Presupposition (local version)}} \quad & \text{(adapted from Schlenker 2012)} \\
& \text{If a clause} \ F \ \text{is a presuppositional alternative of a clause} \ F' \ \text{[...], with global context} \ C, \ \text{and syntactic environment} \ a\_b:}
\end{align*}
\]

\[
\begin{align*}
& \quad \text{i. in} \ C, \ \text{the presuppositions of} \ F \ \text{and} \ F' \ \text{are satisfied within their local context} \ c \ \text{in} \ a\_b; \\
& \quad \text{ii.} \ F \ \text{and} \ F' \ \text{have the same assertive component relative to their local context} \ c \ \text{in} \ a\_b; \\
& \quad \text{iii.} \ F \ \text{carries a stronger presupposition than} \ F' \\
& \text{then} \ F \ \text{should be preferred to} \ F'
\end{align*}
\]

- The Tagalog data provides support for the latter view: compare strength of syntactically complex expressions like clauses.

---

\(^5\)The intuition follows from an overarching principle of checking presupposition satisfaction in local contexts of embedded constituents, assuming contexts are dynamically updated incrementally (Karttunen 1974)
To reiterate: there is no pair of morphemes which can be selected as being ordered by presuppositional strength, generating the alternative pair (25).

(25) a. Na-diskubre ni Karlos ang buwan
   PERF.PV-discover GEN Karlos NOM moon
   Karlos discovered the moon.
b. Naka-diskubre si Karlos ng buwan
   PERF.AV-discover NOM Karlos GEN moon
   Karlos discovered a moon.

– the voice and case morphemes in the presuppositional alternative (25a) are all present in the non-presuppositional (26), suggesting no morpheme in (25a) triggers a presupposition.

(26) Na-diskubre ni Karlos ang isang buwan
   PERF.PV-discover GEN Karlos NOM one moon
   Karlos discovered a moon.

– For this reason, this paper’s account has the presupposition in (25a) introduced by covert type-shifting.

Presuppositional strength of alternatives must be compared at a level in which type-shifting can conceivably take place, i.e., at a larger level than the lexical item.

- Singh’s/Schlenker’s theory of competition at the clausal level (24) satisfies this requirement.

6 Grammatical alternatives

This paper is building a view of implicature calculation which is sensitive to the syntactic complexity of pragmatic alternatives. This view is further supported by a famous Tagalog paradigm (see Collins 2016b for more details).

- Nonuniqueness implicatures arise only in verb-initial sentences.
- In actor-initial sentences, the nonuniqueness implicature does not arise.
- (27) is compatible with a definite interpretation, despite the genitive patient. The indefinite interpretation is still possible, given a supporting context (e.g., an astronomy class).

(27) [sino] [ang nakadiskubre ___i ng buwan]
    NOM.WHO NOM PERF.AV-discover GEN moon
    Who discovered the/a moon?

- Infelicitous genitive patients as in (28a) become felicitous in actor-initial sentences.

(28) a. #sumukat [ako]Act [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]Act ay sumukat [ng kabilugan ng ulo ni John]  
    NOM.1SG TOP PERF.AV.measure GEN circumference GEN head GEN John  
    I’m the one that measured the circumference of John’s head.
• The effect is consistent across a range of actor-initial clause types (clefts, *wh*-questions, topicalization, relativization, etc.). See Aldridge 2005; Rackowski 2002; Schachter and Otanes 1982 for examples/discussion.

• I argue this “disappearing nonuniqueness” effect is due to a failure of pragmatic enrichment.

• Actor-initial sentences in Tagalog must have the AV morpheme on the verb (and genitive on the patient) due to the ‘Extraction Restriction’ (Georgopoulos 1985; Gerassimova 2007 and many others).

(29) **Extraction Restriction**: extraction operations only target nominative NPs.

• Therefore, the corresponding PV version of the actor-initial (28b) is ungrammatical.

(30) $^{*}[ko]_{\text{Actor}} \text{ ay sinukat } [\text{ang kabilagan ng ulo ni John}]$

  gen.1sg  top  perf.pv.measure  nom  circumference  gen  head  gen  John

• I propose (28b) does not pragmatically compete with its alternative (30), because (30) is ungrammatical, thus no pragmatic enrichment takes place.

• The usual reasoning via MP does not apply for actor-initial sentences like (28b). Thus, interlocutors don’t assume the PV variant failed to be uttered because its presuppositions were false.

• Participants are able to conclude that the speaker of (28b) uttered the AV variant because the PV variant is ungrammatical.

6.1 Well-formedness

• Earlier definitions of *Maximize Presupposition* (24) do not refer to the well-formedness of the alternatives.

• Strictly interpreted, nothing in definition (24) prevents the actor-initial sentence (28b) pragmatically competing with its ungrammatical alternative (30).

• Thus I advocate for grammatical well-formedness being a pre-condition for pragmatic competition:

(31) **Well-formedness principle:**
If $F$ and $F'$ are pragmatic alternatives, then $F$ and $F'$ are grammatically well-formed.

• Thus ill-formed expressions will not compete with well-formed expressions. Pragmatic strengthening will not occur if the pragmatic alternative is blocked by the language’s grammar.

• Contrasts with particular interpretations of Gricean pragmatics, of which Horn (2006:21) states “non-truth-conditional aspects of meaning are read off the output of semantically interpreted logical forms”.
  
  – Certain implicatures are not independent of the form of the utterance and its alternatives.
  
  – Assessment of an alternative’s viability must involve grammatical information, i.e., well-formedness.

• This constraint stems from the basic intuition that alternatives are utterances which “could have been uttered”, thus demanding an alternative meet all linguistically relevant conditions (phonological, morphosyntactic, semantic, pragmatic).
7 Conclusion

- Today’s question: languages around the world express definiteness and indefiniteness without employing definite/indefinite articles. Do these languages still show the pragmatic effects (i.e., nonuniqueness implicatures) observed in article languages? The Tagalog data presented here suggests they do.

- I advocate for particular theories of implicature calculation in order to include these kinds of paradigms
  - The constraint that lexical scales should be semantically ordered must be weakened to allow for cases where no particular morpheme encodes for definiteness.
  - Thus, in these cases, implicature calculation must involve semantic comparison of fully formed expressions and not isolated lexical items.
  - Finally, a well-formedness constraint must be imposed on pragmatic alternatives in order to account for cases where the grammar blocks the emergence of an implicature.

References


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


