

On the scope and position of Tagalog clitic adverbs

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1 Introduction

Austronesian languages of the Philippines, including Tagalog, are well-known for their inventory of second-position clitics.

- (1) a. Umi~inom **ka na rin daw** ng alak.
AV.IPFV~drink 2SG.NOM already also EVID GEN alcohol
'You're also drinking alcohol now (somebody said).'
- b. Hindi **ka na rin daw** umi~inom ng alak.
NEG 2SG.NOM already also EVID AV.IPFV~drink GEN alcohol
'You're also no longer drinking alcohol (somebody said).'

As seen in (1), there are pronominal clitics and adverbial clitics.

- The order of multiple clitics within a cluster is (mostly) fixed, based on their type (pronoun vs adverbial) and phonological shape.

(2) The order of Tagalog second-position clitics:

1σ pronouns < 1σ adverbs < $2+\sigma$ adverbs < 2σ pronouns

See e.g. Schachter 1973 and Schachter and Otnes 1972: pp. 411–414.

- (3) a. Umi~inom **pa ako** ng tsaa. * ... **ako pa** ...
AV.IPFV~drink still 1SG.NOM GEN tea
'I'm still drinking tea.'
- b. Umi~inom **ka pa** ng tsaa. * ... **pa ka** ...
AV.IPFV~drink 2SG.NOM still GEN tea
'You're still drinking tea.'

Prior work on Tagalog second-position clitics (e.g. Richards, 2003; Anderson, 2009; Kaufman, 2010) propose that their word order at PF is determined postsyntactically, both for second-position placement and cluster-internally.

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- Clitic pronouns originate in argument positions and move to (or Agree with) a higher position outside of the verbal phase (Richards, 2003; Erlewine and Levin, 2021).
- But for clitic adverbs, we must determine their positions at LF, in order to understand the range of possible PF–LF mappings and to hypothesize their derivations.

Today: We report on the semantic scope of clitic adverbs in Tagalog, based primarily on the native speaker intuitions of the first author.

- The semantic scope of adverbs tells us about their logical positions at LF.
- No prior work has conducted a systematic investigation of clitic adverb scope.

2 Clitic adverb inventory

We first introduce the inventory of second-position clitics in Tagalog — with *approximate* glosses — building on Schachter and Otnes 1972: §6.2 and Kaufman 2009: 9:

(4) a.	<u>speech act/clause type:</u> <i>pò/hò</i> politeness <i>ba</i> question marker <i>sána</i> hortative/counterfactual	d.	<u>temporal:</u> <input type="radio"/> <i>na</i> 'already' <input type="radio"/> <i>pa</i> 'still'
b.	<u>discourse coherence:</u> <i>naman</i> switch topic <i>kasi</i> 'because' <i>tuloy</i> 'as a result' <i>ngà</i> "emphasis"	e.	<u>focus:</u> <i>man</i> 'even' <input type="radio"/> <i>din</i> 'also' <input type="radio"/> <i>lang/lamang</i> 'only'
c.	<u>speaker attitude/status:</u> <input type="radio"/> <i>talaga</i> 'really/certainly' <i>daw</i> reported speech <i>kayà</i> 'hopefully' <i>pala</i> surprise <i>yátà</i> 'perhaps'	f.	<u>other:</u> <input type="radio"/> <i>talaga</i> 'really/very' <i>múna</i> 'first?'

- We expect the meanings of the “speech act/clause type” (4a) and “discourse coherence” (4b) type — and probably most of the “speaker attitude” (4c) type — to be high, taking scope over the entire proposition expressed by the clause.
- In addition, the semantics of some clitic adverbs are themselves not yet clear (e.g. *ngà*, *múna*), so we set them aside.
- We therefore take a closer look at the scope of adverbs with , whose semantic contributions are relatively clear and which may potentially take scope in different ways. We concentrate on instances where we have the clearest evidence for relative scope relations.

3 Scope with respect to negation

Here we consider the scope of temporal and focus particles with respect to negation.³

3.1 *na* / *pa*

We begin with *na* and *pa*, which reflect well studied temporal particles in many other languages. *Na* expresses a meaning akin to that of German *schon*, Mandarin sentence-final *le*, and certain uses of English *already*; see e.g. Löbner 1989; Krifka 2000; Soh and Gao 2008. We hypothesize:

- (5) *na*(*p*)
- a. at-issue: *p* true
 - b. presupposes: *p* false at a (recent) prior time
- (6) **Hindi** *ka na umi~inom ng alak.* simplified from (1b)
NEG 2SG.NOM already AV.IPFV~drink GEN alcohol
 ‘You’re no longer drinking alcohol now.’ (*na* > not, *not > *na*)

Let *p* = ‘you’re drinking alcohol’

- “*na* > not”: predicts *p* false now, but *p* true ($\neg p$ false) at a prior time
- × “not > *na*”: predicts *p* false now and was also false before (presupposition of *na*(*p*) projects)

pa has semantics similar to German *noch* and English *still*; see e.g. Löbner 1989; Krifka 2000. We hypothesize:

- (7) *pa*(*p*)
- a. at-issue: *p* true
 - b. presupposes: *p* true at a (recent) prior time
- (8) a. **Masaya** *pa si Gina.* b. **Hindi** *pa masaya si Gina.*
happy still NOM Gina NEG still happy NOM Gina
 ‘Gina is still happy.’ ‘Gina is still not happy.’
(*pa* > not, *not > *pa*)

Let *p* = ‘Gina happy’

- “*pa* > not”: predicts *p* false now and false at a prior time
- × “not > *pa*”: predicts *p* false now, but was true recently (presupposition of *pa*(*p*) projects)

► As noted by Richards (2003: 243–244), *na* ‘already’ and *pa* ‘still’ must scope over negation.

³ We do not consider the scope of *man* ‘even’ with respect to negation, as such combinations yield “scale reversal” behavior, which can be analyzed as involving scope-taking (e.g. Karttunen and Peters, 1979) or with a cross-linguistically common lexical ambiguity (see e.g. Rooth, 1985; von Stechow, 1991).

3.2 *din*

Din (intervocally: *rin*) is an additive focus particle ('also'), presupposing the truth of a discourse-salient alternative proposition.

- (9) a. ✓ **Hindi** b<um>ili si Juan ng [isda]_F, at **hindi rin** siya b<um>ili ng itlog.
NEG <AV>buy NOM Juan GEN fish and NEG also 3SG.NOM <AV>buy GEN egg
'Juan didn't buy [fish]_F, and he also didn't buy [eggs]_F.' (also > not)
- b. #B<um>ili si Juan ng [isda]_F, pero **hindi rin** siya b<um>ili ng itlog.
<AV>buy NOM Juan GEN fish but NEG also 3SG.NOM <AV>buy GEN egg
Intended: 'Juan bought [fish]_F, but he did not also buy [eggs]_F.' (*not > also)

► *din* must take scope over negation.

3.3 *lang*

Lang (and its variant *lamang*) is an exclusive focus particle ('only'). Although it frequently associates with a fronted constituent, it may also associate with a postverbal argument focus (Richards, 2019).

- (10) a. Umi~inom **lang** si Juan ng [kape]_F.
AV.IPFV~drink only NOM Juan GEN coffee
'Juan only drinks [coffee]_F.' (He doesn't drink anything else.)
- b. **Hindi lang** umi~inom si Juan ng [kape]_F.
NEG only AV.IPFV~drink NOM Juan GEN coffee
✓ 'Juan doesn't only drink [coffee]_F.' (He drinks other things too.) (not > only)
✓ 'Juan only doesn't drink [coffee]_F.' (He drinks everything else.) (only > not)

3.4 Summary

The evidence above suggests that not all clitic adverbs behave the same in their scope with respect to negation:

- *na* 'already,' *pa* 'still,' and *din* 'also' strictly scope over negation;
- *lang* 'only' can take scope above or below negation.

4 Scope in adverb clusters

Next we consider the relative scope of two clitic adverbs in the same cluster.⁴

4.1 *na/pa* × *lang* ‘only’

Word order: *na lang, *lang na*

- (11) [English]_F **na lang** ang alam niya.
English already only NOM KNOW 3SG.GEN

‘S/he only knows English now.’⁵

- (12) a. Context (lost all but one): This person used to speak several languages, but got into an accident and suffered a brain injury. Because of this, they’ve lost the ability speak all those languages except for English. (Predicts “*na* > only” true.) ✓ (11)
- b. Context (acquired only one): A child is growing up in a multilingual environment. After some time, they’re able to speak English, but not any of the other languages yet. (Predicts “only > *na*” true.) # (11)

Word order: *pa lang, *lang pa*

- (13) [Si John]_F **pa lang** ang nasa bahay.
NOM John still only NOM PRED.OBL HOUSE

‘Still only John is at home.’

- (14) a. Context (still only one): After the meeting, everyone goes back to their respective homes. Thirty minutes after the meeting, only John has arrived at home. Now, one hour after the meeting, John is still the only one at home. The others are still on their way. (Predicts “*pa* > only” true.) ✓ (13)
- b. Context (one still at home): Friends have agreed to meet at the mall at 1pm. At 12:30pm, everyone was at their respective homes. Now at 12:45, there is just one person who still hasn’t left their home: John. (Predicts “only > *pa*” true.) # (13)

► Only *na/pa* > *lang* scope is possible!

⁴ Again we concentrate on pairs where we can confidently determine their scope. In Appendix A, we discuss an example of a combination (*na* ‘already’ × *din* ‘also’) where relative scope cannot be confidently determined, due to the semantics of the particles and their interaction.

⁵ The argument ‘English’ is clefted here. The judgments in (12) are the same with ‘English’ being the predicate itself:

(i) Nag-i~English na lang siya.
AV-IPFV~English already only 3SG.NOM
≈ ‘S/he now only [Englishes]_F.’

4.2 *din* ‘also’ × *lang* ‘only’

Word order: *din lang*, *lang din* orders both ok, with some preferences (not yet understood)

- (15) Nag-i~English {**lang din** / ?**din lang**} si Mary.
 AV-IPFV~English only also also only NOM Mary
 ‘[Mary]_{F2} also_{F2} speaks only_{F1} [English]_{F1}.’
- (16) a. Context 1: John speaks only_{F1} [English]_{F1}. [Mary]_{F2} also_{F2} speaks only_{F1} [English]_{F1}.
 (Predicts “also > only” felicitous.) ✓ (15)
- b. Context 2: Everyone here speaks Tagalog. Only_{F1} [Mary]_{F1} also_{F2} speaks [English]_{F2}.
 (Predicts “only > also” felicitous.) # (15)

► Only *din* ‘also’ > *lang* ‘only’ scope is possible, regardless of word order.⁶

4.3 *nalpa* × *talaga* ‘really’

Word order: *na talaga*, **talaga na*

Tagalga invites the translation ‘really,’ but has two distinct uses: as an epistemic adverb (‘certainly/actually’) and as a degree intensifier (‘very’).

► The two *talaga* take different scope with respect to *na*.

- (17) Buntis **na** **talaga** si Susan.
 pregnant already really NOM Susan
 ‘Susan is really pregnant now.’⁷
- (18) a. Context (confirming pregnancy): Susan thought she was pregnant based on an at-home test, but she hasn’t looked or felt different at all, so she went to a doctor to check. The doctor confirmed that Susan indeed is now pregnant. ✓ (17)
- b. Context (became very pregnant): The last time I saw Susan, she told me she was pregnant but she wasn’t showing yet. Now I saw her at 8 months, and she’s *really* pregnant. (Predicts *na* > *talaga*_{DEG} true.) ✓ (17)

⁶ The two intended readings can be expressed more clearly by fronting the nominal argument, creating two separate domains for clitic placement. The fronting in (iia) is topicalization, as opposed to clefting in (iib).

- (ii) a. Si Mary **din** ay nag-i~English **lang**. b. Si Mary **lang** ang nag-i~English **din**.
 NOM Mary also TOP AV-IPFV~English only NOM Mary only NOM AV-IPFV~English also
 ‘Mary also speaks only English.’ (✓C1, #C2) ‘Only Mary also speaks English.’ (#C1, ✓C2)

⁷ *Talaga* also has a use as a predicate, embedding a clause with a linker (*ng*), which only has the epistemic use:

- (iii) Talaga-ng buntis na si Susan
 certain-LK pregnant already NOM Susan
 ‘It’s certain that she is now pregnant.’

Although we constructed (18a) so that $talaga_{EPIST} > na$ is true (\approx 'It's certain that she became pregnant'), the context may also support a $na > talaga_{EPIST}$ reading (\approx 'It's now certain (and wasn't certain before) that she is pregnant.'). Here is another example to specifically test this:

(19) Si Rob **na talaga** ang mamamatay-tao.

NOM Rob already really NOM killer-person

literally: 'The killer is Rob' + na + $talaga$

(20) Context (became certain): This town has had a serial killer, and Rob is a prime suspect. Now, new DNA evidence came back from the lab which shows that it indeed was Rob.

(Predicts $na > talaga_{EPIST}$ true; $talaga_{EPIST} > na$ false.⁸)

(19)

- The infelicity of (19) in (20) shows that $talaga_{EPIST}$ cannot take scope under na .⁹

Word order: $pa talaga$, $*talaga pa$

(21) Buntis **pa talaga** si Susan.

pregnant still really NOM Susan

'Susan is really pregnant still.'

(22) a. Context (confirmed still pregnant): Susan was pregnant and had an accident, and so was worried if there was a miscarriage. An at-home test confirmed she's still pregnant, but she wanted to be sure so she went to a doctor. The doctor confirmed that she is still pregnant. (Predicts $talaga_{EPIST} > pa$ true.) ✓ (21)

b. Context (still very pregnant): The last time I saw Susan, she was 8 months pregnant and showing a lot. Now she's at 9 months and hasn't given birth yet, so she's still very pregnant. (Predicts $pa > talaga_{DEG}$ true.) ✓ (21)

- Like na , pa naturally takes scope under $talaga_{EPIST}$ but above $talaga_{DEG}$.¹⁰

4.4 Summary

From the interpretation of clitic adverbs in clusters, we learn:

- na 'already,' pa 'still,' din 'also' strictly scope over $lang$ 'only';
- epistemic $talaga$ scopes above na/pa but degree $talaga$ scopes under na/pa .

⁸ The latter would informally predict a meaning like 'It is certain that the killer is now Rob / Rob became the killer.'

⁹ We do not specifically test for a $talaga_{DEG} > na$ interpretation, as it is unclear what this would mean.

¹⁰ Unlike with na which we tested in (19), it seems impossible to construct an example where $pa > talaga_{EPIST}$ would be true but $talaga_{EPIST} > pa$ would be false, in order to test the availability of the wide scope pa . Again, it is unclear what a $talaga_{DEG} > pa$ reading would be.

5 Conclusion and proposal

- The scope of clitic adverbs does not transparently reflect their linear order, making the study of adverb scope essential for studying their logical syntactic positions.
- There are certain fixed scope effects for clitic adverbs with respect to other clitic adverbs and with functional heads, reflected in (23):

(23) $talaga_{\text{EPIST}} > na/pa/din^{11} > \{lang\} > \text{negation} > \{lang\} > talaga_{\text{DEG}}$

- Many languages exhibit a (generally) fixed relative order for adverbs (see e.g. Cinque, 1999, 2004; Ernst, 2002). Interestingly, Tagalog shows us that similar restrictions hold of relative scope-taking, independent of their linear order.

- ▶ We propose that this order reflects the positions of corresponding covert operators at LF: (Bold indicates potential hosts for enclitics.)

(24) (speech act modifiers) ... [... (epistemic adverbs, e.g. $TALAGA_{\text{EPIST}}$) ...
[... (NA/PA/DIN) ... [(LANG1) ... [$_{\text{TOPP/FOCP}}$ (**topic/focus**) ... [$_{\Sigma}$ (**Neg**) [... (LANG2) ...
[$_{\text{predicate}}$... (predicate-internal adverbs, e.g. $TALAGA_{\text{DEG}}$) ... **Pred** ...

- We propose that the predicate head-moves to Σ when it does not host negation. Clitics follow the topic/focus, if present, or else Σ ; see also Hsieh 2020.
- ▶ The scope of clitic adverbs shows that, descriptively, both lowering and raising are necessary for the placement of clitic adverbs with respect to their logical positions.

Handout with references and appendices: tinyurl.com/clitics-jsls

¹¹ *Na* and *pa* never cooccur. It's possible that the scope of *na/pa* vs *din* have ordering restrictions on their scope too, but see the Appendix on the difficulty of determining this scope relationship.

References

- Anderson, Stephen R. 2009. Second-position clitics in Tagalog. In *The nature of the word: Studies in honor of Paul Kiparsky*, ed. Kristin Hanson and Sharon Inkelas, 549–566. MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads*. Oxford University Press.
- Cinque, Guglielmo. 2004. Issues in adverbial syntax. *Lingua* 114:683–710.
- Erlewine, Michael Yoshitaka. 2014. Movement out of focus. Doctoral Dissertation, Massachusetts Institute of Technology.
- Erlewine, Michael Yoshitaka, and Theodore Levin. 2021. Philippine clitic pronouns and the lower phase edge. *Linguistic Inquiry* 52:408–425.
- Ernst, Thomas. 2002. *The syntax of adjuncts*. Cambridge University Press.
- Hsieh, Henrison. 2020. Beyond nominative: A broader view of \bar{A} -dependencies in Tagalog. Doctoral Dissertation, McGill University.
- Karttunen, Lauri, and Stanley Peters. 1979. Conventional implicature. In *Syntax and semantics, volume 11: Presupposition*, ed. Choon-Kyu Oh and David A. Dinneen, 1–56. Academic Press.
- Kaufman, Daniel. 2009. Austronesian nominalism and its consequences: A Tagalog case study. *Theoretical Linguistics* 35:1–49.
- Kaufman, Daniel. 2010. The morphosyntax of Tagalog clitics: A typologically driven approach. Doctoral Dissertation, Cornell University.
- Krifka, Manfred. 2000. Alternatives for aspectual particles: Semantics of *still* and *already*. In *Proceedings of BLS 26*, 401–412.
- Kripke, Saul. 1990/2009. Presupposition and anaphora: Remarks on the formulation of the projection problem. *Linguistic Inquiry* 40:367–386.
- Löbner, Sebastian. 1989. German *schon - erst - noch*: An integrated analysis. *Linguistics and Philosophy* 12:167–212.
- Richards, Norvin. 2003. Why there is an EPP. *Gengo Kenkyu* 123:221–256.
- Richards, Norvin. 2019. Association with *lang* ‘only’ in Tagalog. Presented at AFLA 26.
- Rooth, Mats. 1985. Association with focus. Doctoral Dissertation, University of Massachusetts, Amherst.
- Schachter, Paul. 1973. Constraints on clitic order in Tagalog. In *Parangal kay Cecilio Lopez: Essays in honor of Cecilio Lopez on his seventy-fifth birthday*, ed. Andrew B. Gonzalez, number 4 in Philippine Journal of Linguistics Special Monographs, 214–231. Quezon City: Linguistic Society of the Philippines.
- Schachter, Paul, and Fe T. Otones. 1972. *Tagalog reference grammar*. University of California Press.
- Soh, Hooi Ling, and Meijia Gao. 2008. Mandarin sentential *le*, perfect and English *already*. In *Event structures in linguistic form and interpretation*, ed. Johannes Dölling, Tatjana Heyde-Zybatow, and Martin Schäfer, 447–473. Walter de Gruyter.
- von Stechow, Arnim. 1991. Focusing and backgrounding operators. In *Discourse particles: Descriptive and theoretical investigations on the logical, syntactic and pragmatic properties of discourse particles in German*, ed. Werner Abraham, 37–84. John Benjamins.
- Tancredi, Chris. 1990. Not only EVEN, but even ONLY. Manuscript, Massachusetts Institute of Technology.

Appendix A: Challenges to scope determination

For some particle combinations, the predicted semantics for the two scope possibilities are difficult to distinguish. One such combination is *na* ‘already’ × *din* ‘also.’

Word order: *na rin*, **din na*

We assume the semantics for *na* as in (5) and that *din* presupposes a true contextual alternative, as for English *also/too* (see Kripke, 1990/2009). Depending on assumptions regarding presupposition projection, we predict:

(25) *na(din(p))*

- a. at-issue: *p* true now
- b. presupposes: there is a focus alternative *p'*, *p'* true now; *p* ($\wedge p'$) false at a prior time

(26) *din(na(p))*

- a. at-issue: *p* true now
- b. presupposes: *p* false at a prior time; there is a focus alternative *p'*, *p'* true now (and *p'* false at a prior time)

So there are three possible interpretations:

- (i) weak (indistinguishable between *na* > *din* / *din* > *na*)
- (ii) strong *na* > *din*
- (iii) strong *din* > *na*

(i) is asymmetrically entailed by both (ii) and (iii). Now consider:

(27) Tao **na** **rin** si Ariel.

person already also NOM Ariel

‘Ariel’s a person now too.’

- (28) a. Context (no changed antecedent): The little mermaid Ariel’s friends are all (natural-born) humans. A witch cast a spell, and now Ariel’s a human too. (Predicts weak *na* > *din* / *din* > *na* (i) felicitous.) ✓ (27)
- b. Context (only alternative changes): Ariel is a (natural-born) human, but all her friends are mermaids. A witch cast a spell, and now one of her friends is a human too. (Predicts strong *na* > *din* (ii) felicitous.) # (27)
- c. Context (with changed antecedent): Ariel is a mermaid and Barbara is a turtle. A witch cast a spell and made Barbara a human. Next, the witch cast a spell and made Ariel a human too. (Predicts weak (i) as well as strong *din* > *na* (iii) felicitous.) ✓ (27)

We learn...

- the weak interpretation (i) is possible, from the felicity in (28a);
- the strong interpretation of *na* > *din* (ii) is not possible;
- these facts are compatible with only the weak interpretation (i) being available, and we then can’t distinguish between *na* > *din* and *din* > *na* scope.

Appendix B: Supporting evidence for the proposal

5.1 Supporting evidence from fronting

The proposed structure in (24) allows for two different scopes of *lang* ‘only,’ above and below negation, motivated by scope ambiguities as in (10b). However, *lang* unambiguously scopes above negation in (29):

- (29) [Dito]_F **lang hindi** ma-sarap ang kape.
here only NEG ADJ-delicious NOM coffee
- ✓ ‘The coffee is only not good [here]_F.’ (It’s good everywhere else.) (only > not)
* ‘The coffee is not only good [here]_F.’ (It’s good elsewhere too.) (*not > only)

Consider the possible LF structures for (29). The presence of *lang* after the fronted adjunct indicates the presence of a covert LANG in position 1 or 2:

- (30) LF: [(LANG1) [_{FocP} [here]_F [_{ΣP} Neg [(LANG2) ...

But the focus in (29) is in Spec,FocP, in the scope of LANG1 but not the scope of LANG2.

- The focus associate of ‘only’ must be in the semantic scope of ‘only’ (Tancredi, 1990; Erlewine, 2014). LANG ‘only’ cannot associate with the focus as intended in position 2, and therefore must be in position 1, taking scope over negation.

Where the scope of *lang* is ambiguous with respect to negation as in (10b) above, the focus is in the scope of both position 1 and 2.

5.2 Supporting evidence from ellipsis

Richards (2003) investigates “complement-of-negation ellipsis” in Tagalog. He shows that pronominal clitics are deleted in complement-of-negation ellipsis, but *pa* is not:

- (31) Hindi ko alam kung nag-bigay *ako* ng pera sa simbahan, pero
NEG 1SG.NOM know if AV.PFV-give 1SG.NOM GEN money OBL church but
s<in>abi ni Maria na hindi **pa** (**ako*).
<PFV>say[PV] GEN Maria LK NEG still 1SG.NOM

‘I don’t know if I gave money to the church, but Maria said that <I> still haven’t <given money to the church>.’ (Richards, 2003: 237)

Against this background, we note that *lang* ‘only’ with “Neg > only” scope interpretation must be deleted in complement-of-negation ellipsis (32), like pronominal clitics but unlike *na/pa*:¹²

¹² The antecedent clause may be more natural with fronting of the oblique: [*Sa simbahan*]_F *lang ako nagbibigay ng pera...*, but the ellipsis facts are the same.

(32) Nagbi~bigay **lang** *ako* ng pera sa [simbahan]_F, pero akala ni Maria na
 AV.IPFV~give only 1SG.NOM GEN money OBL church but think GEN Maria LK
 hindi (***lang**) (**ako*).
 NEG only 1SG.NOM

'I only give money to the [church]_F, but Maria thinks that <I> don't <**only**> give money to the church>.' (Maria thinks I give money to other places too.)

- Complement-of-negation ellipsis targets the complement of Σ , which includes LANG2 but not *pa* or other higher clitic adverbs. We explain the ellipsis facts by assuming that clitics and their corresponding operators must be one-to-one at PF.¹³

¹³ This potentially forms an argument for ellipsis via LF copying rather than PF deletion.