

A Minimalist Account of Balinese Binding

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Balinese Binding Pattern

Balinese transitive verbs appear in two voices: Agentive Voice (AV), in which the external argument is promoted to grammatical subject, and Objective Voice (OV), in which it is instead an internal argument that raises.

(1) Ia ngatap biju
3SG AV.cut banana
'(S)he cut a banana.'

(2) Biju gatap ia
Banana OV.cut 3SG
'(S)he cut a banana.'

Balinese Binding Pattern

A coargument-bound reflexive must appear post-verbally in AV but pre-verbally in OV.

(3) Ia_i ngatap awak-ne_i
3SG AV.cut self-3POSS
'(S)he_i cut herself_i.'

(4) Awak-ne_i gatap ia_i
Self-3POSS OV.cut 3SG
'(S)he_i cut herself_i.'

(5) *Ia_i gatap awakne_i.

(6) *Awakne_i ngatap ia_i.

In GB/Minimalism, this binding paradigm suggests that Spec,TP—which we take to be the landing site of subjects in Balinese—is an A'-position in Balinese, because movement to Spec,TP does not create an antecedent for binding.

The Puzzle

But raising, a classical instance of movement to Spec,TP, can create an antecedent for binding, suggesting it is in fact an A-position:

- (7) Ayu_i ngenah sig awak-ne_i jelek sajan.
Ayu seem to self-POSS.3SG bad very
'Ayu_i seemed to herself_i to be very ugly.'

Wechsler (1999) suggests that this binding pattern is problematic to GB/Minimalist theories of binding, dubbing the apparent paradox the "Balinese Bind."

But in positing this paradox, Wechsler overlooks a crucial detail about Balinese reflexives.

The Missing Piece

Udayana (2013) (p. 217) shows that Balinese complex reflexives can be used **logophorically** to refer to a person whose speech/thoughts/feelings are being reported.

- (8) Ento ngae I Sari kendel awakne suba
that AV.make ART Sari happy self-POSS.3SG PERF
makurenan.
MV.spouse
'That Made I Sari happy that she was already married.'

We argue that reflexives in raising sentences are logophoric, and not bound by the raised subject. We build upon Udayana (2013)'s empirical observations that *awakne* has logophoric properties with novel data and a GB/Minimalist analysis.

Our Goal

1. We provide new evidence from fieldwork that *awakne* is necessarily logophoric in raising constructions.
2. We argue that the anaphor in the raising construction is not bound by the subject in Spec,TP but a null logophoric pronoun lower in the tree.
3. We compare and contrast our solution to the Balinese Bind with that of Levin (2014).

Awakne can be logophoric in raising constructions

Contrasting with English, reflexive experiencers of *ngenah* ‘seem’ can also be anteceded by non-local perspectival centers:

- (9) Nyoman_i ngaden Ayu_j ngenah sig awak-ne_{i/j} jelek sajan
Nyoman think Ayu seem to self-3POSS bad very
‘Nyoman_i thinks Ayu_j seems to himself/herself_{i/j} to be very ugly.’

We argue that the reflexive experiencer of *ngenah* is **always** logophorically licensed. We show this using two diagnostics for antecedence by an attitude holder derived from Charnavel (2020):

- (i) Obligatory de se reading of the reflexive
- (ii) Possible orientation of an evaluative expression to the antecedent of the reflexive

(i) Obligatory de se reading

Charnavel & Zlogar (2015) (p. 17) show that the exempt anaphor in (10a) is unacceptable paired with the de re context:

- (10) John is looking at a research article that he co-wrote with Ann many years ago, but does not recognize it as one of his own papers. Instead, he falsely assumes that Ann's co-author is a colleague of his who happens to have the same name as him.
- a. # According to John_i, the article was written by Ann and himself_i.

Awakne in raising constructions must be read de se

Unlike in cases of overt local binding as in (3)–(4) prior, *awakne* must be read de se in raising constructions:

- (11) **Context:** Ayu is very drunk at a weekend party at her friend's house. She sees a portrait of herself that her friend has hanging up and calls the woman in the portrait ugly, though she does not realize that she is the woman in the photo.

Ayu_i ngenah sig awak-ne_i jelek sajan
Ayu seem to self-3POSS very bad
'Ayu_i seems to herself_i to be very ugly.'

The infelicity of (11) doesn't follow from de re reading of the subject (see Appendix slide 2).

(ii) Possible evaluation by antecedent

In the sentence below (from Charnavel & Zlogar (2015), p. 15), the author may be great in the eyes of either the speaker or the attitude holder, *John*.

- (12) According to John, the article was written by Anne and a great author.

(ii) Possible evaluation by antecedent

Replacing the reflexive with an evaluative expression, we find that the expression can be evaluated from Ayu's perspective rather than the speaker's:

(13) **Context:** Ayu thinks some person is well-behaved, but you think that same person is not well-behaved. Ayu is upset because that person doesn't like her appearance.

Question: Why is Ayu upset?

- a. Ayu ngenah sig anak sane masolah becik jelek sajan
Ayu seem to person REL behave good bad very
(nanging tiang ngerasa anak-e ento tusing masolah
(but 1SG feel person-DEF DEM NEG behave
becik).

good)

'Ayu seems to a well-behaved person to be very ugly (but I think that person is not well-behaved).'

Summary so far

We thus far have two pieces of evidence—obligatory *de se* interpretation and possible evaluation by antecedent—that *awakne* in this position is necessarily logophoric.

One prediction that this makes is that no raising ought to be needed for a reflexive experiencer in raising constructions like (5).

- (14) Ayu_i ngenah sig awak-ne_i jelek sajan.
Ayu seem to self-POSS.3SG bad very
'Ayu_i seemed to herself_i to be very ugly.'

Raising is not necessary for the reflexive to be bound:

(15) **Context:** Arta took a photo of Ayu and Nyoman. Ayu doesn't like the way she looks in the photo, so she hid the photo in the closet.

Question: Why did Ayu hide the photo?

Ngenah sig awak-ne_i ia_i jelek sajan.
seem to self-POSS.3SG 3SG bad very
'It seems to herself that she is very ugly.'

Analysis of Balinese Binding

We adopt a phase-based formulation of Condition A motivated in Charnavel & Sportiche (2016):

- (16) Condition A: An anaphor must be bound in the minimal Spell-Out domain containing it.

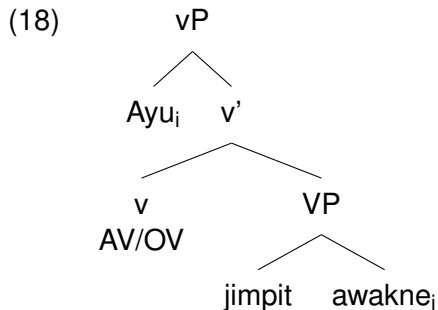
We adopt Charnavel (2020)'s framework, according to which logophorically licensed anaphors are in fact locally bound—in accordance with Minimalist Condition A—by a covert logophoric pronoun, pro_{log} , which is introduced into the syntax as the specifier of a logophoric operator, OP_{LOG} .

(17) [Spell-Out Domain ... [LogP pro_{log-i} OP_{LOG} [P ...anaphor_i...]]

The projection LogP is inserted at the top of the Spell-Out domain.

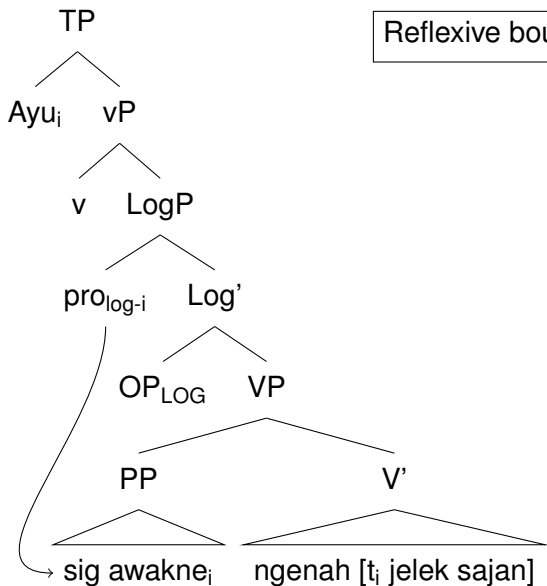
Binding in the Balinese voice alternation

In simple sentences, the reflexive is locally bound in vP before subject promotion.



Analysis for raising constructions

(19)

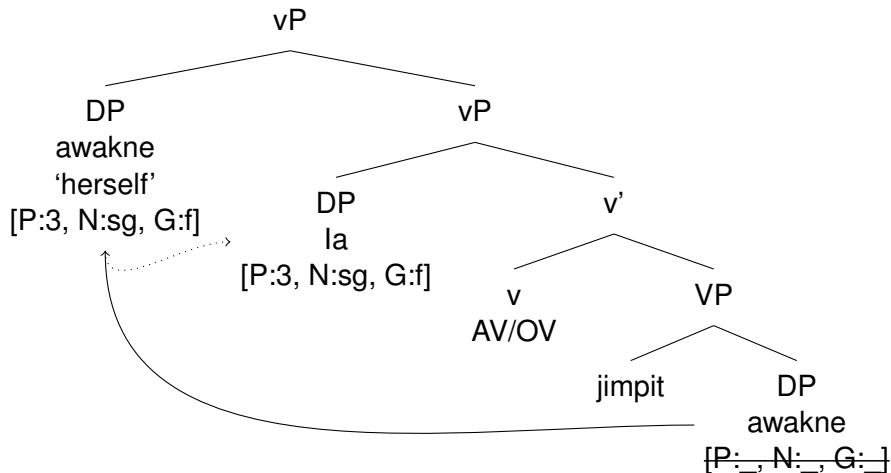


The relevant binding domain for raising is the Spell-Out domain is vP (it is unclear whether P is a phase head, see Citko (2014) for discussion). By positing that binding occurs within vP, we sidestep the problem of whether Spec,TP is an A- or A'-position in Balinese, remaining agnostic on it.

Levin (2014)

Levin (2014) offers a solution to the Balinese Bind that incorporates Rooryck & Vanden Wyngaerd (2011)'s Agree-based binding mechanism, arguing for the same conclusion that we do: binding uniformly occurs in vP prior to subject promotion, and there is no Balinese Binding paradox.

Levin (2014)'s approach



Levin assumes something similar in raising constructions (but with covert movement to Spec,vP instead).

Problems for Levin (2014)'s approach

We think that there are two main problems for this approach. First, Levin (2014) does not predict the logophoric properties first noted by Udayana (2013), and further developed by us. Second, it is impossible for agree-based theories to derive the acceptability of binding in constructions **without** raising.

Agreeing across a CP phase

Recall the following context-sentence pair:

(20) **Context:** Arta took a photo of Ayu and Nyoman. Ayu doesn't like the way she looks in the photo, so she hid the photo in the closet.

Question: Why did Ayu hide the photo?

Ngenah sig awak-ne_i ia_i jelek sajan.
seem to self-POSS.3SG 3SG bad very
'It seems to herself that she is very ugly.'

The embedded clause is finite, as evidenced by the subject licensing inside the embedded clause—Balinese doesn't have overt tense or agreement. The operation Agree should not be able to agree with the embedded subject.

Long-distance anaphors and monomorphemicity

Many linguists (first by Faltz (1985), Pica (1987)) have noted that the long-distance property of anaphors seems to be related to the complexity of its morphology.

- (21) **Haspelmath (2008)'s Universal 7:** If a language has different reflexive pronouns in local and long-distance contexts, the local reflexive pronoun is at least as complex phonologically as the long-distance one.

Long-distance reflexives in Balinese

Awakne is actually a complex reflexive. Balinese also has the simplex reflexive *awak*, which can never be read long-distance:

- (22) Nyoman_i ngaden Ayu_j nanjung awak^{*_{i,j}}
 Nyoman think Ayu AV.kick self
 ‘Nyoman_i thinks Ayu_j kicked herself^{*_{i,j}}.’

Balinese contradicts this long-standing generalization in the field.

Concluding Remarks

We have argued that Wechsler (1999)'s paradox for GB/Minimalist theories of binding does not exist, by providing novel empirical evidence that *awakne* is necessarily logophorically bound in raising constructions, thus obviating the need to assign variable status to Spec,TP.

Thank you for listening!

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Appendix 1

Awakne can be logophorically licensed when anteceded by an attitude holder, but not when it is inanimate (cf. Charnavel & Sportiche (2016)). This shows that it is mental perspective rather than sourcehood that matters.

- (23) Nyoman_i ningeh uli Artaj Ayu_k nanjung awak-ne^{*_{i,j,k}}
Nyoman AV.hear from Artaj Ayu AV.kick self-3POSS
'Nyoman_i heard from Artaj_j that Ayu_k kicked him/herself^{*_{i,j,k}}.'
- (24) Nyoman_i ningeh uli [surat kabar]_j Ayu_k nanjung
Nyoman AV.hear from document news Ayu AV.kick
awak-ne_{i,*j,k}
self-3POSS
'Nyoman_i heard from [the newspaper]_j that Ayu_k kicked
him/herself_{i,*j,k}.'

Appendix 2

The unacceptability of the sentence prior does not arise from the unavailability of de re readings of raised subjects in Balinese ‘seem’ constructions:

(25) Context: Intoxicated, Ayu looks at a picture of Nyoman but doesn’t realize it’s him.

- ✓ Nyoman ngenah sig Ayu jelek sajan.
Nyoman seem to Ayu bad very
‘Nyoman seems to Ayu to be very ugly.’

Hence, the problem with (11) does not appear to be with referring to the object of belief as *Ayu* but with referring to the belief holder with *awakne*.

Appendix 3

The epithet test (another test for exempt anaphors) in the experiencer position is inconclusive. Neither an epithet nor a pronoun is acceptable in the raising construction:

- (26) * Nyoman ngenah sig (ia / idiot-e ento) jelek sajan.
Nyoman seem to 3SG / idiot-DEF DEM bad very
'Nyoman seemed to him/the idiot (=Nyoman) to be very ugly.'

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