

# Unraveling Balinese Binding\*

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Voice alternations in Balinese interact with reflexives in a way that Wechsler (1999) argues is problematic to Minimalist theories of binding. In simple sentences, promotion of a DP to subject position does not render it a potential antecedent for reflexive binding, suggesting that the landing site for Balinese subjects is an A'-position. But in raising constructions, the raised subject may seemingly bind an anaphor within the matrix VP, suggesting that subjects rather land in an A-position. Wechsler dubs this paradox the "Balinese Bind." This paper has two goals: first, we present novel evidence showing that Balinese complex anaphors may be interpreted logophorically even in the presence of a syntactic coargument. Second, we propose a solution to the Balinese Bind that builds on Charnavel (2019)'s logophoric A-binder hypothesis. We show that this proposal is better able to account for the interpretive constraints observed in raising constructions than previous proposals, and we discuss implications of Balinese reflexives for Agree-based theories generally. This paper concludes that although both theories provide a Minimalist account of this paradox, Charnavel's analysis is better able to account for the interpretive constraints observed in raising constructions.

**Keywords:** balinese, reflexives, agreement, binding, Austronesian

## 1 Introduction

Wechsler (1999) attempts to provide an argument supporting HPSG against GB and Minimalism based on the so-called "Balinese Bind," which concerns the binding of complex reflexives in Balinese, an Austronesian language.<sup>1</sup> Wechsler observes that promotion of an argument to subject position does not create new antecedents for binding in simple transitive constructions; within a GB/Minimalist framework, this suggests that the landing site for Balinese subjects, which we identify as Spec,TP, comprises an A'-position.<sup>2</sup> However, in raising constructions, the raised sub-

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<sup>1</sup>Previous works, such as Wechsler (1999) and Levin (2014), have not noted that this issue is unique to complex reflexives; Balinese also has simplex reflexives, but these cannot occur in the constructions which Wechsler alleges are problematic to Minimalist approaches. We will introduce simplex reflexives after section 1. It should also be noted that Balinese has many different anaphors depending on registers. For simplicity, in this paper, we will illustrate only with the reflexives made up of the low register, simplex reflexive *awak*.

<sup>2</sup>This assumption reflects the standard within the Minimalist Program and is shared by Levin (2014), whose account for the Balinese Bind is discussed below. Note, however, that nothing hinges on whether Balinese subjects raise to Spec,TP or some other projection. As long as subjects land in the same position in AV, OV, and raising constructions, we are faced with the apparent paradox detailed below. As Wechsler and Arka (1998) point out, there is ample evidence from raising, relativization, extraposition, quantifier float and control that the subject moves to Spec,TP (under a Minimalist account) in OV constructions, just as in AV.

ject does appear to be a potential antecedent for binding, suggesting that Spec,TP is in fact an A-position, leading to a potential paradox.

The problem is illustrated as follows. Like many Austronesian languages, Balinese exhibits two transitive voice markings: Agentive Voice (AV), in which the external argument is promoted to subject (SVO word order), and Objective Voice (OV), in which the internal argument is promoted to subject (OVS word order).<sup>3</sup> AV is marked with a phonologically conditioned nasal prefix, as in (1a), while the OV is morphologically unmarked, as in (1b):

- |        |  |    |   |
|--------|--|----|---|
| (1) a. | Tiang ngatap biu<br>1SG AV.cut banana<br>'I cut a banana.' | b. | Biu gatap tiang<br>banana OV.cut 1SG<br>'I cut a banana.' |
|--------|--|----|---|

In AV, a complex reflexive that is coreferent with its coargument must be post-verbal; it cannot be pre-verbal, as seen in (2a)-(2b). In OV, the reflexive must instead appear pre-verbally; it cannot be post-verbal, as shown in (2c)-(2d). For Minimalism, this suggests that Spec,TP is not an A-position in Balinese, such that binding conditions must be satisfied before movement:<sup>4</sup>

- |        |  |    |  |
|--------|--|----|--|
| (2) a. | Ayu <sub>i</sub> nyimpit awak-ne <sub>i</sub><br>Ayu AV.pinch self-POSS.3SG<br>'Ayu <sub>i</sub> pinched herself <sub>i</sub> .' | c. | Awak-ne <sub>i</sub> jimpit Ayu <sub>i</sub><br>self-POSS.3SG OV.pinch Ayu<br>'She <sub>i</sub> pinched Ayu <sub>i</sub> .'      |
| b.     | *Awak-ne <sub>i</sub> nyimpit Ayu <sub>i</sub><br>self-POSS.3SG AV.pinch Ayu<br>'She <sub>i</sub> pinched Ayu <sub>i</sub> .'    | d. | *Ayu <sub>i</sub> jimpit awak-ne <sub>i</sub><br>Ayu OV.pinch self-POSS.3SG<br>'Ayu <sub>i</sub> pinched herself <sub>i</sub> .' |

However, in raising constructions with the verb *ngenah* 'seem' (which does not undergo the AV/OV alternation) the raised subject appears able to bind an anaphor within an optional experiencer-PP adjoined to the matrix clause (3). In such constructions, which we will henceforth refer to as Balinese Bind constructions, it thus appears that Spec,TP is an A-position after all, such that raising to Spec,TP does create new possibilities for anaphoric binding:

- (3) Ayu<sub>i</sub> ngenah sig awak-ne<sub>i</sub> jelek sajan.  
Ayu seem to self-POSS.3SG bad very  
'Ayu<sub>i</sub> seemed to herself<sub>i</sub> to be very ugly.'

Comparing simple transitive cases with raising constructions, it looks as though Spec,TP is both an A- and A'-position in Balinese. According to Wechsler (1999), this seeming contradiction poses a serious problem for proponents of a GB/Minimalist approach to binding. On the other hand, Wechsler claims that the distribution of Balinese anaphors can be accounted for straightforwardly within HPSG, concluding that the latter framework is therefore empirically superior.<sup>5</sup>

<sup>3</sup>For further discussion, the reader is referred to Wechsler and Lee (1996), Wechsler and Arka (1998), Udayana (2013) and Levin (2014).

<sup>4</sup>There have been different analyses of *-ne* in the literature. We follow Haiduck (2014)'s analysis of *-ne* as a third person possessive suffix, who argues against decomposing *-ne* further.

<sup>5</sup>In particular, under the assumption that binding relations are determined within the argument structure (ARG-S) associated with the lexical description of a predicate, Wechsler argues that licensing of the reflexive in (3) follows from inclusion of the raised NP within the ARG-S of *ngenah*, where it a-commands the experiencer-PP. We refer the reader to Wechsler's paper for illustration of the ARG-S assumed for *ngenah* 'seem' along with further details

In this paper, our goal is to demonstrate that Balinese anaphoric binding can in fact be accounted for within a GB/Minimalist approach once all potential antecedents are identified. Based on a wealth of novel data, we motivate an account of the Balinese Bind that incorporates the insights of Charnavel (2019)’s theory of logophoricity, building on Udayana (2013), who was the first to note *awakne*’s logophoric properties.<sup>6</sup> In particular, we show that the complex anaphor *awakne* seen above can receive a logophoric interpretation in the absence of an overt local binder, the possibility of which previous work on the Balinese Bind does not explore.

Though many more tests will be presented in section 3, one illustrative example is provided below. Based on data from French, Charnavel and Sportiche (2016) demonstrate that seeming exemption from GB Condition A is unavailable for inanimate reflexives, which cannot receive a logophoric interpretation by virtue of lacking a sentient antecedent. We observe a comparable animacy contrast in Balinese: in (4a)-(4b), *awakne* can take an overtly non-local antecedent only when that antecedent is animate and, hence, a potential logophoric center:

- (4) a. Yesus<sub>i</sub> nglalahin anak sane kenyih taken awak-ne<sub>i</sub>.  
 Jesus AV.influence person REL sensitive to self-POSS.3SG  
 ‘Jesus influences people who are sensitive to himself.’  
 b. \*Injil<sub>i</sub> nglalahin anak sane kenyih taken awak-ne<sub>i</sub>.  
 Bible AV.influence person REL sensitive to self-POSS.3SG  
 ‘The Bible influences people who are sensitive to itself.’

We argue that logophoricity is the key to unraveling the "Balinese Bind." More specifically, we propose that *awakne* in examples like (3) is bound not by the raised subject from matrix Spec,TP but, rather, by a phonetically null logophoric pronoun located within the minimal Spell-Out domain containing the experiencer-PP adjunct. We provide one illustrative example in (5a) below, in which we see that the reflexive experiencer must be read de se and, hence, is incompatible with contexts in which a de se attitude does not hold:

- (5) Ayu sees a photo of herself and thinks she is ugly, though doesn’t realize it is herself.  
 a. # Ayu ngenah sig awak-ne jelek sajan.  
 Ayu seem to self-POSS.3SG bad very  
 ‘Ayu seemed to herself to be very ugly.’

This obligatory interpretive constraint is predicted by Charnavel’s theory, according to which logophorically interpreted anaphors require a de se reading when anteceded by an attitude holder. This is not predicted by Wechsler’s account, nor by Levin (2014)’s Agree-based solution.

This, along with other data to be presented, lead us to propose the syntactic structure in (6) for the Balinese Bind construction, where the complex reflexive *awakne* is anteceded by a null logophoric pronoun located within the Spell-Out domain of vP (which we later revise). If this structure is correct, then no stipulations regarding the status of Spec,TP are necessary to account for Balinese Bind constructions within a Minimalist framework:

- (6) [<sub>LogP</sub> pro<sub>log-i</sub> OP<sub>LOG</sub> [<sub>VP</sub> [<sub>PP</sub> sig awakne<sub>i</sub>] [<sub>V'</sub> ngenah jelek sajan]]]

regarding the assumptions of the HPSG approach to binding. As Wechsler rightfully notes, this sort of explanation is not tenable in a Minimalist framework.

<sup>6</sup>The data that is presented in this paper was primarily obtained via a mixture of in person and Zoom elicitation sessions from a single native speaker of Balinese. This data was supplemented with additional data via discussion with a Balinese linguist, I Nyoman Udayana.

We further discuss the consequences of the data in this paper. First, we make the novel observation that Balinese anaphora contradict a long-standing generalization in the literature that if a language has both simplex and complex anaphors, then the complex anaphor cannot receive a long-distance interpretation; this generalization is stated most clearly by Haspelmath (2008). We show that Balinese anaphors behave the opposite way: simplex anaphors must be interpreted locally while complex anaphors may have long-distance antecedents in any syntactic context.

Second, in addition to presenting our logophoricity-based proposal, we also discuss whether Agree-based theories of binding, such as Rooryck and Vanden Wyngaerd (2011), likewise provide an account of the Balinese Bind. Although we find that Levin (2014)’s solution works, we also point out that it does not predict *awakne*’s apparent logophoric properties.

The remainder of this paper is structured as follows. Section 2 presents the background to the Balinese voice alternation and prior attempts to solve this paradox. Section 3 presents tests from Charnavel (2019) to establish that *awakne* can be logophorically licensed, and extends them to the Balinese Bind construction. Based on our findings, we argue that *awakne* is obligatorily logophoric in this context. Section 4 presents our formal solution to this paradox, and section 5 discusses agree-based theories of *awakne*. Section 6 concludes.

## 2 Background

In this section, we provide the reader with the background needed to understand the issues covered in this paper. 2.1 presents an account of the Balinese voice alternation from Levin (2014). We adopt a variant of this proposal in our account as well, to account for simple transitive sentences. 2.2 and 2.3 present Levin (2014) and Travis (1998)’s solutions to the Balinese Bind paradox respectively.

### 2.1 The Balinese Voice Alternation and Anaphor Binding

Before we turn to the Balinese Bind, it is important to first account for the distribution of reflexives in simple transitive sentences. Recall from section 1 data which is repeated in (7a)-(7d) below: complex reflexives like *awakne* must be post-verbal in AV, but pre-verbal in OV:

- |  |  |
|--|--|
| <p>(7) a. Ayu<sub>i</sub> nyimpit awak-ne<sub>i</sub><br/> Ayu AV.pinch self-POSS.3SG<br/> ‘Ayu<sub>i</sub> pinched herself<sub>i</sub>.’</p> <p>b. *Awak-ne<sub>i</sub> nyimpit Ayu<sub>i</sub><br/> self-POSS.3SG AV.pinch Ayu<br/> ‘She<sub>i</sub> pinched Ayu<sub>i</sub>.’</p> | <p>c. Awak-ne<sub>i</sub> jimpit Ayu<sub>i</sub><br/> self-POSS.3SG OV.pinch Ayu<br/> ‘She<sub>i</sub> pinched Ayu<sub>i</sub>.’</p> <p>d. *Ayu<sub>i</sub> jimpit awak-ne<sub>i</sub><br/> 3SG OV.pinch self-POSS.3SG<br/> ‘Ayu<sub>i</sub> pinched herself<sub>i</sub>.’</p> |
|--|--|

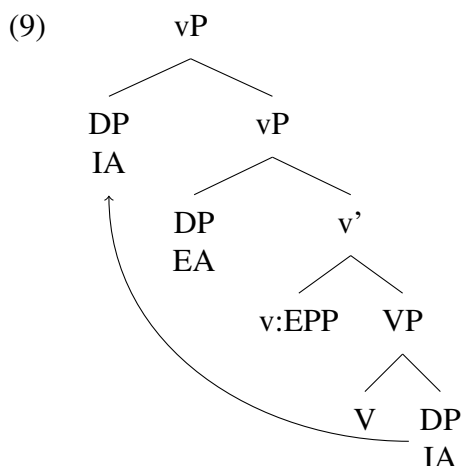
Following Charnavel and Sportiche (2016) and Charnavel (2019), we assume that reflexives must be bound within the minimal Spell-out domain containing them.<sup>7</sup> To account for the binding pattern in (7a)-(7d), we adopt a variant of Levin (2014)’s account of the Austronesian voice alternation, which itself is based on Aldridge (2008).

<sup>7</sup>See Charnavel and Sportiche (2016) for motivation from French, based on the distribution of inanimate anaphors.

Levin and Aldridge adopt Baker (1988)'s Uniformity of Theta-Assignment Hypothesis (UTAH), according to which external arguments (EA) are always generated as the specifier of the verb, such as Spec,vP, while internal arguments (IA) are always generated as its complement. The sentences (8a)-(8b) below have the same syntactic structure at one point in the derivation:

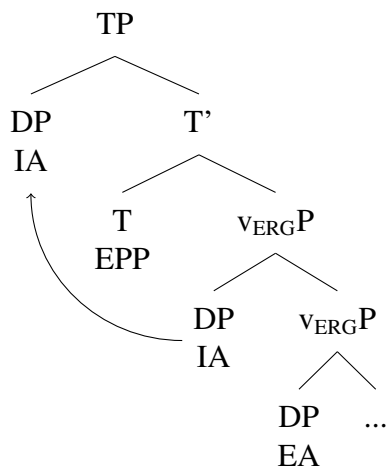
- (8) a.   Tiang ngatap biu  
           1SG   AV.cut banana  
           'I cut a banana.'
- b.   Biu    gatap tiang  
           banana OV.cut 1SG  
           'I cut a banana.'

In addition to their common thematic core, both voices have in common an additional movement step of the IA to Spec,vP above the EA, as illustrated in the tree (9) below. Under Levin's approach this movement is driven by an EPP feature on v.

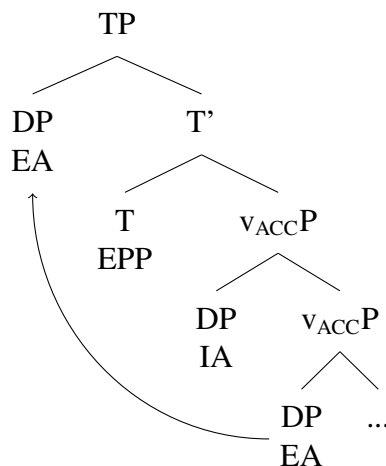


The difference between the two voices is Case assignment. AV clauses are argued to be similar to English, in that  $v^0$  in AV assigns accusative case to the IA ( $v_{ACC}$ ). But  $v^0$  in OV ( $v_{ERG}$ ) does not assign ergative case to either the IA or EA. This means that the IA in OV will remain an Active goal in the sense of Chomsky (2001) and hence available for probing by higher functional heads, such that the IA is able to move to Spec,TP. By contrast, when accusative case is assigned to the IA in AV, it is rendered Inactive for further probing by higher functional heads, and only the EA may move to Spec,TP. This is illustrated in the pair of trees in (10)-(11) below:

(10) OV derivation



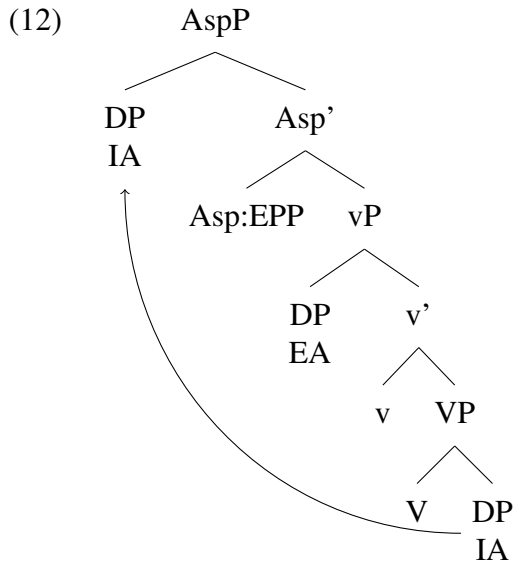
(11) AV derivation



In the OV derivation, the EA argument never receives case. There are two potential explanations for this that render the OV derivation unproblematic. We might follow Kornfilt and Preminger (2015) in assuming that unmarked cases such as nominative and absolutive are just caselessness. Alternatively, Levin provides independent evidence that the post-verbal argument in OV incorporates in  $v^0$ , allowing it to remain unmarked for case.<sup>8</sup>

While this account is able to capture the basic voice alternation found in Balinese, adopting this account alongside Charnavel and Sportiche (2016)'s framework raises an issue. Notice that in a sentence such as *Ayu nyimpit awakne* 'Ayu pinched herself,' if one assumes both that *Ayu* is Merged to Spec,vP and that vP is a phase edge, then the subject *Ayu* never c-commands the reflexive within the minimal Spell-Out domain containing the latter. This would have the unfortunate consequence that anaphors can never be bound in such simple sentences, incorrectly predicting the ungrammaticality of (7a).

This issue is not unique to Balinese: it arises in any case it is assumed that the EA is Merged in the phase edge. Charnavel and Sportiche (2016) provide several arguments for a rethinking of the "vP edge": they propose that the agent of vP is first Merged inside the Spell-Out domain, then attracted to Spec,vP as  $v^0$  probes for the nearest DP, which is the Agent. In this paper, we propose to solve this problem by instead associating the phase edge with a higher aspectual projection such as AspP, following Hinterhölzl (2006). This assumption allows us to obtain the desired results in (7a)-(7d). The EA is base-generated in Spec,vP in all cases, but the movement in of the IA in OV sentences takes place to Spec,AspP under our account, rather than vP, as in (12):



In order to avoid violations of Relativized Minimality, we suggest that movement of the IA captured in (12) occurs only in OV sentences: in these cases, we assume that the EA is valued with inherent ergative case by  $v_{\text{ERG}}$  (cf. Legate (2014), p. 62), rendering it inactive for subsequent probing by Asp. In AV sentences, the EA does not receive case for  $v_{\text{ACC}}$ , allowing the EA, rather

<sup>8</sup>Another potential problem is as follows. As Levin points out, the tree in (11) may be a violation of Rizzi (1993)'s Relativized Minimality. The first element that  $T^0$  encounters is the IA, not the EA. Levin's answer for this is that case-assigned elements have been rendered inactive to further syntactic operations; he also notes that common analyses of ergative-absolutive Case systems such as Legate (2008) and Legate (2014) also require that  $T^0$  look past the IA.

than the IA, to raise to Spec,AspP—similar to the movement proposed in Charnavel and Sportiche (2016). This allows us to maintain the core insights of previous accounts for Balinese voice alternations while capturing binding in simplex sentences.

## 2.2 Levin (2014)

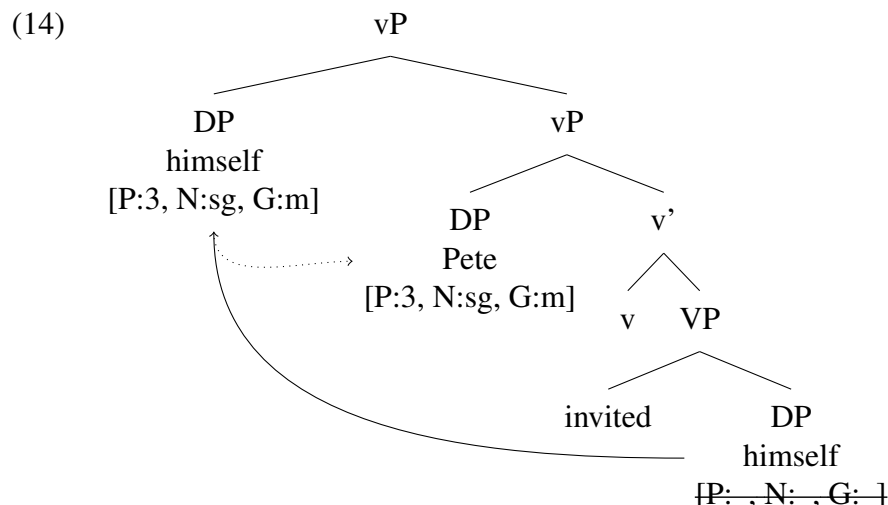
Having accounted for the binding pattern observed in simple transitive sentences, we may now turn to raising constructions. In line with the preceding literature, we will focus on examples including the predicate *ngenah* 'seem,' which is shown with and without raising in (13a) and (13b) respectively, from Wechsler (1999):

- (13) a.    *Ngenah sajan kapelihan-ne engkebang ci*  
           seem    much mistake-3POSS OV.hide    2SG  
           'It is very apparent that you are hiding his/her wrongdoing.'
- b.    *Kapelihan-ne ngenah sajan kengkebang ci*  
           seem            much mistake-3POSS OV.hide    2SG  
           'It is very apparent that you are hiding his/her wrongdoing.'

*Ngenah* optionally occurs with a PP expressing the experiencer: that is, the individual(s) for whom the "seeming" holds. Interestingly, the experiencer can be encoded as a reflexive that corefers with the raised subject, as shown in (3) above. Wechsler (1999) argues that examples like (3) pose a significant challenge for GB/Minimalist approaches to binding since they require that raising to subject position create new antecedents for binding, contrary to what is observed in simple OV constructions.

Taking up the task of defending Minimalist binding approaches against the objections raised by Wechsler (1999), Levin (2014) proposes a solution to the Balinese Bind that incorporates his proposal for Balinese voice alternation outlined above with the Agree-based anaphor licensing mechanisms put forth by Rooryck and Vanden Wyngaerd (2011). Levin's account sidesteps the issue of whether Spec,TP is an A- or A'-position in Balinese by positing that binding takes place lower in the syntax of raising constructions. In particular, Levin argues that reflexive binding in Balinese uniformly occurs within vP, whether in AV, OV, or raising constructions.

An illustrative tree of a derivation of the sentence *Pete invited himself* from Rooryck and Vanden Wyngaerd (2011) is given in (14) below; the anaphoric element raises to an adjoined position such as Spec,vP, at which point the anaphor ends up c-commanding its antecedent (and subsequent short movement of the verb above vP, and the EA above the anaphor, which is not shown):



This is a counterintuitive result.<sup>9</sup> Regardless, the unvalued  $\phi$ -features on the anaphor cause it to probe the antecedent that it ends up c-commanding, and its features are valued. At LF, the nominal that was valued during the derivation is interpreted as bound. As noted by R&W, this proposal does not immediately extend to complex anaphors within PPs, as these anaphors do not c-command their antecedent at any point in the syntactic derivation. To account for such cases, R&W propose that the anaphor covertly moves out of the PP at PF in order to adjoin to a position from which it can probe its antecedent.

Levin extends R&W's approach to Balinese simplex sentences. He first proposes that the IA raises to a specifier of vP, as shown in 2.1. From there, an anaphoric IA c-commands the EA, allowing it to probe the EA in order to check its unvalued  $\phi$ -features. The binding relationship is thus established between two elements, each of which are in Spec,vP, prior to T even being Merged, thereby obviating need to appeal to Spec,TP as a potential locus of binding. This correctly predicts the effect of voice alternation on the surface distribution of reflexives seen in (7a)-(7d), since binding is established within vP prior to promotion of the pivot to Spec,TP.

In order to account for binding in raising constructions, Levin compares the Balinese Bind construction to (15). If the PP in (15) above were to undergo movement to Spec,vP and above the EA, the anaphor would be unable to value its  $\phi$ -features as it is too far embedded:

(15) Tim looked at himself in the mirror.

According to R&W, the anaphor in (15) covertly moves outside of the PP and adjoins to Spec,vP, c-commanding the EA. This is precisely what Levin proposes for the BB construction, as well: the reflexive experiencer moves covertly to a position that c-commands the embedded subject, allowing it to check its unvalued features before raising occurs.

Levin's proposal is able to handle the data that have previously appeared in literature discussing the Balinese Bind. But we will argue that it does not predict the larger distribution of Balinese reflexive anaphors. Levin makes no mention of logophoric interpretations of Balinese

<sup>9</sup>R&W's approach fails to predict the overwhelming tendency of reflexives to surface as c-commanded by their antecedent and not vice versa, nor does it make clear why sentences such as *\*Himself invited Pete* should be ruled out. In the case of *Himself invited Pete*, R&W appeal to the Activity Condition: the v Probe of the matrix clause has already agreed with the DP *Pete* and rendered it inactive. The reader is referred to Rooryck and Vanden Wyngaerd (2011) for more details on this issue.

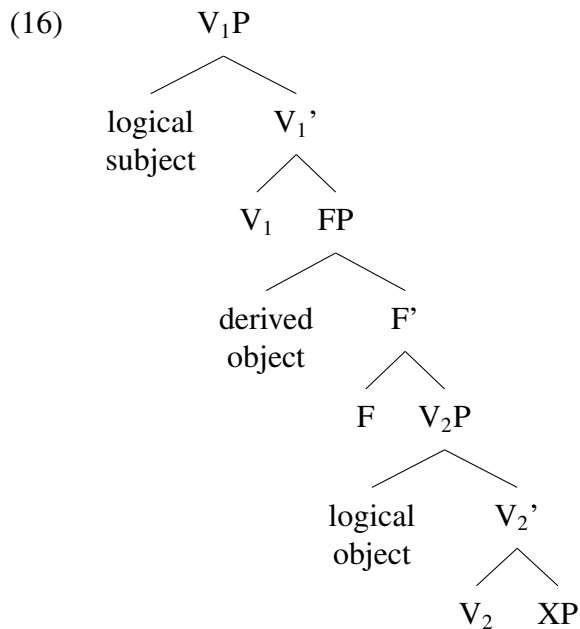


complex anaphors, which are available even when the anaphor is a syntactic object. Like R&W, Levin would have to resort to stipulating homophony between the anaphor and the logophoric pronominal to account for the Balinese facts, which we now discuss.

### 2.3 Travis (1998)

Within the GB/Minimalist framework, a *prima facie* solution to the paradigm presented in (7a)-(7d) is to posit that only  $\theta$ -roles are relevant for binding. Notice that in the paradigm presented in (7a)-(7d) above, the receiver of the Agent  $\theta$ -role is always the binder of the reflexive, and the reflexive itself is the Theme. Indeed, another solution of the Balinese Bind could be to posit an account in which reflexive binding in Balinese is based on  $\theta$ -roles. This is precisely what Travis (1998) and Travis (2012) suggest.

Travis argues that  $\theta$ -positions are represented structurally. In accordance with the aforementioned UTAH,  $\theta$ -positions are mapped onto articulated VP structures. The most up-to-date version of this account is found in Travis (2012), in which the VP is articulated as follows in (16) (p. 34). The functional projection F is meant to be generic; it houses derived objects such as those in raising-to-object constructions (ex. *Mary believes **herself** to be a genius*):



The Agent  $\theta$ -role is associated with Spec,  $V_1P$  whereas the Theme  $\theta$ -role is associated with Spec,  $V_2P$ . Travis keeps the notion of A-positions, however, dividing this into two:  $\theta$ -positions, which she calls T-positions, and T'-positions, which are not  $\theta$ -positions. The specifier positions of all lexical categories must be T-positions; the specifier positions of functional categories cannot be T-positions. Binding is sensitive only to T-positions; Travis proposes that matrix Spec, TP in the Balinese Bind construction is a T-position so binding from it is possible. However, in OV sentences, Spec, TP is rather a T'-position, so binding is not possible from it.

We also present one empirical problem for Travis from Levin (2014), who provides an argument for Spec, TP in both voices being A-positions—at least in control constructions.

Notice that in Balinese control constructions, as shown in (17a)-(17d), PRO must be pre-verbal in the embedded clause regardless of whether the embedded verb is AV or OV. PRO of course must occupy a T-position, as PRO was originally posited to violations of the  $\theta$ -Criterion (for example, as defined in Chomsky (1981)) violations:

- |      |    |  |    |   |
|------|----|--|----|---|
| (17) | a. | Tiang edot PRO periksa dokter.<br>1SG want PRO OV.examine doctor<br>'I want to be examined by a doctor.' | c. | Tiang edot PRO meriksa dokter.<br>1SG want PRO AV.examine doctor<br>'I want to examine a doctor.'         |
|      | b. | *Tiang edot dokter periksa PRO.<br>1SG want doctor OV.examine PRO<br>'I want to examine a doctor.'       | d. | *Tiang edot dokter meriksa PRO.<br>1SG want doctor AV.examine PRO<br>'I want to be examined by a doctor.' |

It could of course be possible for Travis to further argue that Spec,TP is a T-position in embedded OV constructions, in contrast with matrix OV. However, as Levin points out, this sort of move would render a mixed-status analysis less plausible—as it would amount to saying that Spec,TP is an T-position whenever it needs to be. It seems difficult to provide independent arguments that would provide a satisfying answer to these problems.

### 3 The Data

We introduce the reader to Charnavel (2019)'s framework of logophoricity in 3.1, which gives us various empirical tests to determine the presence of a perspectival center. Extending these tests to Balinese, in 3.2, we establish that *awakne* may optionally be interpreted logophorically. In 3.3, we turn our attention to the Balinese Bind construction, and we make the argument that the reflexive in that context must be anteceded by a perspectival center. In 3.4 we introduce the reader to the simplex reflexive *awak*, and discuss a longstanding generalization on reflexives that this data contradicts.

#### 3.1 Background

It has long been noted in the literature that there are contexts in which anaphors are clearly subject to Chomsky (1986)'s Condition A, according to which anaphors must be bound within their local domain.<sup>10</sup> Such a context is illustrated in (18) with an example from Charnavel and Sportiche (2016:37(2)), who refer to well-behaved anaphors as in (18a) as plain anaphors:

- (18) a. [The moon]<sub>i</sub> spins on itself<sub>i</sub>.  
b. \* [The moon]<sub>i</sub> influences [people sensitive to itself]<sub>i</sub>.

On the other hand, it has likewise been observed—by Ross (1970), Kuno (1972), Bouchard (1985), Lebeaux (1985), Pollard and Sag (1992) and Reinhart and Reuland (1993) among many others—that there are circumstances in which anaphors appear to not be subject to Condition A.

<sup>10</sup>Different authors have different ideas of what this local domain is. For Chomsky, it was the domain containing the anaphor and a subject distinct from that anaphor. We follow Charnavel and Sportiche (2016) in assuming that it is the Spell-Out domain of a phase head, as this formulation is based on the behavior of inanimate anaphora and thus avoids the confound of logophoric licensing.

For example, *himself* can be bound by *David*, though under any definition of locality, *David* is the farthest possible antecedent for the anaphor in (19):

- (19) David<sub>i</sub> said to Mary that nobody would believe linguists like himself<sub>i</sub> were necessary.

Seemingly exceptional anaphors such as *himself* in (19) are referred to as exempt anaphors (cf. Pollard and Sag (1992), Charnavel and Sportiche (2016), Charnavel (2019)). The goal of Charnavel (2019) is to account for why, in so many languages, plain and exempt anaphors are phonetically identical despite apparent differences in their licensing conditions.

She argues that, contrary to appearances, plain and exempt anaphors are one and the same: though lacking an overt local antecedent, exempt anaphors are locally bound by a phonetically null logophoric pronoun,  $pro_{log}$ , that is identified with the individual whose perspective is adopted by the speaker. Hence, even seemingly exceptional anaphors satisfy Condition A, albeit covertly.

In support of this proposal, Charnavel observes that exempt reflexives are necessarily animate. For example, notice that (18b) improves significantly if *the moon* is replaced with an animate subject in (20a). A similar contrast is observed in (20b) and (20c), where we see that *the newspaper* cannot antecede a reflexive in the embedded clause despite being a source of information:

- (20) a. Trump<sub>i</sub> influences [people sensitive to himself<sub>i</sub>].  
b. Caitlin learned from John<sub>i</sub> that there was a story about himself<sub>i</sub> on TV.  
c. \*Caitlin learned from [the newspaper]<sub>i</sub> that there was a story about itself<sub>i</sub> on TV.

The effect of animacy is predicted under Charnavel’s hypothesis: because only animate individuals are potential perspectival centers, only animate reflexives can be bound by  $pro_{log}$ . Crucially, though animacy is a necessary condition for logophoric binding, it is not sufficient. Charnavel (2019) makes two empirical generalizations:

- (21) a. An exempt anaphor must be anteceded by an attitude holder or an empathy locus. This is its logophoric antecedent.  
b. The constituent containing an exempt anaphor has to express the first-personal perspective of its antecedent. This is its logophoric domain.

Further details of this hypothesis will be provided in section 3.1. Important for the present is Charnavel’s taxonomy for exemption (i.e., logophoric binding), given in Table 1 below:

**Table 1:** Taxonomy for exemption

Logophoric antecedent	Logophoric domain	Tests
Attitude holder	<i>De se</i> attitude	First-person morphology Anti-attitudinal epithets Double orientation
Empathy locus	First-personal perception	Emphatic ‘his dear’

We now present some illustrative examples—from Charnavel and Zlogar (2015)—of some of the tests in Table 1 applied to English, beginning with tests targeting logophoric binding by an attitude holder. Consider the example in (22), in which the reflexive *himself* is neither local to nor c-commanded by its (overt) antecedent, *John*.

- (22) # According to John, the article was written by Anne and himself. Kuno (1987), p. 121

The first, known as the epithet test, is inspired by Dubinsky and Hamilton (1998)'s observation that epithets—for instance, *the idiot*—cannot corefer with the perspectival center associated with the context in which the epithet occurs. Charnavel and Zlogar demonstrate that epithets may be used to detect antecedence by an attitude holder, defining the epithet test as follows:

- (23) **Epithet test:** Replace the exempt anaphor with a co-referring epithet and check whether the sentence becomes unacceptable.

As the example in (24) shows, substitution of the reflexive in (22) with a co-referring epithet renders the sentence unacceptable. This reveals that the antecedent of the reflexive, *John*, is an attitude holder, and that the clause containing the reflexive expresses *John*'s de se attitude.

- (24) \* According to John, the article was written by Ann and the idiot.

The result of the epithet test is corroborated by another test proposed by Charnavel and Zlogar, the double orientation test, which they define as in (25):

- (25) **Double Orientation Test:** Replace the exempt anaphor with an evaluative expression and check whether it can be evaluated by both the speaker and the antecedent.

This test derives from the fact that an evaluative expression—for example, *a good man*—can be evaluated from the perspective of an attitude holder rather than the speaker if it occurs within an attitudinal context associated with that attitude holder. Charnavel and Zlogar apply this test to the sentence in (22) as shown in (26), noting that the author may be great in the eyes of either the speaker or the attitude holder, *John*.

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

In addition to the epithet and double-orientation tests, antecedence by an attitude holder can also be diagnosed by determining whether the anaphor must be read de se. Obligatory de se interpretations have often been cited as a property of logophors by Huang and Liu (2001), Anand (2006), Charnavel and Zlogar (2015) and Charnavel (2019), among others. Charnavel and Zlogar (2015) show with the example in (27a) that the anaphor in (22) becomes unacceptable in a context that does not support a de se reading:

- (27) 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<sub>i</sub>, the article was written by Ann and himself<sub>i</sub>.

Attitude holders are only one sort of perspectival center identified by Charnavel (2019) as a potential antecedent for seemingly exempt anaphora; as stated in the generalization in (21), empathy loci may likewise license exemption in some languages. Reflexives anteceded by empathy loci occur in the absence of intensional operators and, as demonstrated by Charnavel and Zlogar (2015), behave differently than attitudinal anaphor with respect to the epithet and double orientation tests. Consider the English example in (28) from Charnavel and Zlogar (2015).

- (28) Anonymous posts about herself on the internet hurt Lucy's feelings.

As in (22), the reflexive in (28) lacks an overt local c-commanding antecedent. However, in this case, an evaluative expression included within the DP containing the anaphor can only be evaluated by the speaker:

(29) The horrible posts about herself on the internet hurt Lucy’s feelings.

If we substitute the proper name *Lucy* with a pronoun in order to avoid violation of Condition C, we find that the reflexive in (28) may be replaced with a co-referring epithet:

(30) Anonymous posts about the idiot hurt her feelings.

Hence, *Lucy* does not appear to refer to an attitude holder in (28). Nevertheless, *Lucy*’s first-personal perspective is adopted by the speaker in uttering (28). This is revealed by Charnavel & Zlogar’s *beloved* test, defined as in (31a) and deployed in (31b).<sup>11</sup>

- (31) a. **Beloved Test:** Replace the exempt anaphor by *his/her beloved NP* and check whether the sentence is acceptable (under a non-ironic reading).  
 b. Anonymous posts about her beloved son on the internet hurt Lucy’s feelings.

In the sections that follow, we apply these tests to Balinese, in order to determine whether Balinese complex reflexives may likewise be exempt if and only if they take a logophoric antecedent and, if so, which sorts of logophoric antecedents are relevant to Balinese.

## 3.2 Balinese complex anaphors as potentially logophoric

We show that *awakne* can be anteceded by either an overtly local antecedent, whether animate or inanimate, or by the perspectival center of the sentence—the availability of which depends on discourse and syntactico-semantic factors, as detailed in Charnavel (2019) (cf. Anand (2006)). These findings lay the groundwork for section 3.3, in which we argue that reflexive experiencers are bound not by the raised subject in raising constructions but, rather, are necessarily anteceded by a perspectival center.

As is common of anaphors in many languages, all anaphors in Balinese are derived from words meaning *body*.<sup>12</sup> We focus on the reflexives derived from the low register *awak*. Following Haiduck (2014), we take for granted that the third person complex anaphor is made of the possessive suffix *-ne* and the simplex anaphor. Unspecified for number, *awakne* can have either singular or plural antecedents.

We begin by establishing that *awakne* exhibits both plain and exempt behavior, just like English *herself*. As shown in (32a)-(32d), *awakne* is compatible with both animate and inanimate antecedents when Condition A is overtly satisfied, i.e., when it is bound locally by an overt DP:

- (32) a. Injil ngrujuk awak-ne  
 Bible AV.reference self-POSS.3SG  
 ‘The Bible references itself.’  
 b. Yesus ngrujuk awak-ne  
 Jesus AV.reference self-POSS.3SG  
 ‘Jesus references himself.’  
 c. Ayu demen ajak foto-n awak-ne.  
 Ayu happy with photo-LNK self-POSS.3SG  
 ‘Ayu likes a picture of herself.’

<sup>11</sup>We refer the reader to Charnavel and Zlogar (2015) and Charnavel (2019) for further details regarding motivation for the *beloved* test.

<sup>12</sup>See Faltz (1985) for the typology of anaphora.

- d. Buku-ne misi foto-n awak-ne.  
 Book-DEF contain photo-LNK self-POSS.3SG  
 ‘The book contains a picture of itself.’

As shown in (33b), *awakne* can also appear in the absence of an overt local binder. Crucially, as captured in the contrast between (33a) and (33b), this is possible only if the antecedent of *awakne* is animate. Inanimate *awakne* must have an overt local binder, even in a position that permits exemption, consistent with what we observed in English above.

- (33) a. \*Injil<sub>i</sub> nglalahin anak sane kenyih taken awak-ne<sub>i</sub>  
 Bible AV.influence person REL sensitive to self-POSS.3SG  
 ‘The Bible<sub>i</sub> influences people who are sensitive to itself<sub>i</sub>.’  
 b. Yesus<sub>i</sub> nglalahin anak sane kenyih taken awak-ne<sub>i</sub>  
 Jesus AV.influence person REL sensitive to self-POSS.3SG  
 ‘Jesus<sub>i</sub> influences people who are sensitive to himself<sub>i</sub>.’

Hence, controlling for animacy as in Charnavel and Sportiche (2016) and Charnavel (2019), we find that Balinese *awakne* is plain when its antecedent is inanimate but can be exempt when its antecedent is animate. Crucially, it is not the case that animacy is a sufficient condition for apparent exemption. In (34), we find that animate *awakne* requires a c-commanding antecedent; it is not compatible with a non c-commanding antecedent, nor with a discourse antecedent.

- (34) [Bapan Ayu<sub>j</sub>]<sub>i</sub> sing nemen-in awak-ne<sub>i,\*j,\*k</sub>  
 Father Ayu NEG AV.like-APPL self-POSS.3SG  
 ‘Ayu<sub>j</sub>’s father<sub>i</sub> does not like himself<sub>i,\*j,\*k</sub>.’

As predicted under Charnavel’s logophoric binding hypothesis, we observe that *awakne* can optionally have a long-distance antecedent when it can be construed as a perspectival center, as in (33b). As observed already by Udayana (2013), apparent exemption is also permitted for animate *awakne* when it appears in an attitudinal context created by an intensional verb such as *ngaden* ‘think.’ Note in (35) that *awakne* is the internal argument of a syntactic predicate; this fact runs counter to the predictions of the predicate-based binding theories put forth by Pollard and Sag (1992) and Reinhart and Reuland (1993), according to which anaphors are exempt if and only if they lack a syntactic coargument.

- (35) Nyoman<sub>i</sub> ngaden Ayu<sub>j</sub> nanjung awak-ne<sub>i,j</sub>  
 Nyoman think Ayu AV.kick self-POSS.3SG  
 ‘Nyoman<sub>i</sub> thinks Ayu<sub>j</sub> kicked him/herself<sub>i,j</sub>.’

Charnavel (2019) observes that while split antecedents are not licensed for plain anaphors, both are possible with exempt anaphors. We find that *awakne* can take a split antecedent in logophoric contexts, as predicted:<sup>13</sup>

<sup>13</sup>Charnavel (2020) also predicts partial antecedents to be available for exempt anaphors. In Balinese, the partial reading requires the adverb *ajak makejang* ‘with all’ in (i), otherwise it is ungrammatical. It is possible that this is due to reasons independent of binding, for instance disambiguation, as *awakne ajak makejang* is more specified:

- (i) Ayu<sub>i</sub> ngorahang [awak-ne ajak makejang]<sub>i+</sub> laku malaib  
 Ayu AV.say self-POSS.3SG with all will run  
 ‘Ayu<sub>i</sub> said that they<sub>i+</sub> will run.’

- (36) Ayu<sub>i</sub> ngorahin Nyoman<sub>j</sub> awak-ne<sub>i+j</sub> laku malaib  
 Ayu AV.told Nyoman self-POSS.3SG will run  
 ‘Ayu<sub>i</sub> told Nyoman<sub>j</sub> that they<sub>i+j</sub> will run.’

As predicted by Charnavel (2019)’s hypothesis, long-distance interpretations of *awakne* are unavailable if the intended antecedent is not construed as the perspectival center associated with the domain in which the reflexive occurs. Consider the contrast in binding possibilities shown in (37a) and (37b). In (37a), we find that *awakne* can be anteceded by the subject of *ngorahin* ‘tell,’ whereas antecedence by the indirect object is dispreferred. Conversely, in (37b) we see that antecedence by the subject of *ningeh uli* ‘hear from’ is dispreferred when the source of information is expressed with *ningeh* ‘hear,’ while antecedence by the latter is fully acceptable (Udayana (2013)):

- (37) a. Nyoman<sub>i</sub> ngorahin Arta<sub>j</sub> Ayu<sub>k</sub> nanjung awak-ne<sub>i,\*j,k</sub>  
 Nyoman AV.tell Arta Ayu AV.kick self-POSS.3SG  
 ‘Nyoman<sub>i</sub> told Arta<sub>j</sub> that Ayu<sub>k</sub> kicked him/herself<sub>i,\*j,k</sub>.’  
 b. Nyoman<sub>i</sub> ningeh uli Arta<sub>j</sub> Ayu<sub>k</sub> nanjung awak-ne  
 Nyoman AV.hear from Arta Ayu AV.kick self-POSS.3SG<sub>\*i,j,k</sub>  
 ‘Nyoman<sub>i</sub> heard from Arta<sub>j</sub> that Ayu<sub>k</sub> kicked him/herself<sub>\*i,j,k</sub>.’

The pattern that emerges from the examples in (37a)-(37b) are consistent with the long-standing observation that sources of information are more likely perspectival centers than recipients of information (Sells (1987), Udayana (2013), i.a.). When the source of information is not expressed, as in (38), antecedence by the recipient becomes possible:<sup>14</sup>

- (38) Ia<sub>i</sub> ningeh cang<sub>j</sub> gedeg taken awak-ne<sub>i/\*j</sub>  
 3SG AV.hear 1SG angry with self-POSS.3SG  
 ‘(S)he heard that I was angry with him/her.’ (Udayana, 2013, p. 199)

In order to determine what sorts of antecedents can license logophoric binding, we can apply the tests introduced in Section 3.1. Consider again the example in (35). Uttered in a context in which Ayu is very drunk and has unknowingly kicked herself, coreference between *awakne* and Ayu is nevertheless perfectly acceptable, revealing that *awakne* need not be read de se if bound by an overt local antecedent. However, we find that *awakne* must be read de se if its antecedent is not overtly local, for instance when anteceded by *Nyoman* in (35). This is made apparent by the unacceptability of coreference between *awakne* and *Nyoman* when (35) is paired with a context as in (39a):

- (39) Nyoman heard that Ayu accidentally kicked someone who had fallen asleep at a party.  
 While he thinks this is true, he doesn’t realize that he was the one who had fallen asleep.  
 a. #Nyoman<sub>i</sub> ngaden Ayu<sub>j</sub> nanjung awak-ne<sub>i</sub>  
 Nyoman think Ayu AV.kick self-POSS.3SG  
 ‘Nyoman<sub>i</sub> thinks Ayu<sub>j</sub> kicked himself<sub>i</sub>.’

<sup>14</sup>The astute reader will notice that *awakne* is not subject to the blocking effect, unlike with *ziji* in Chinese (see Giblin (2016)).

The *de se* requirement is also observed of *awakne* in (40a)-(41a), in which the reflexive appears as the subject of the clausal complement of *ngorahang* ‘say’:<sup>15</sup>

(40) Ayu sees a picture of herself, and is pleased by how beautiful she is.

- a. Ayu<sub>i</sub> ngorahang awak-ne<sub>i</sub> (ngenah) jegeg sajan.  
 Ayu AV.say self-POSS.3SG (seem) beautiful very  
 ‘Ayu<sub>i</sub> said that she<sub>i</sub> looks very beautiful.’

(40a) is infelicitous in a context like (41a)’s, according to which Ayu does not realize that she is the girl in the photo who she thinks is beautiful:

(41) Ayu sees a picture taken at a party. She remarks that one of the girls in the photo looks very beautiful, but she doesn’t realize that she is the girl in the photo.

- a. # Ayu<sub>i</sub> ngorahang awak-ne<sub>i</sub> (ngenah) jegeg sajan.  
 Ayu AV.say self-POSS.3SG (seem) beautiful very  
 ‘Ayu<sub>i</sub> said that she<sub>i</sub> looks very beautiful.’

The *de se* requirement for long-distance antecedence in (35)-(41a) suggests that the antecedent is in both cases an attitude holder, and that the reflexive falls in a *de se* attitudinal domain.

This conclusion is further supported by application of the tests for antecedence by an attitude holder summarized in Table 1. Applying the double orientation test to the Balinese example in (41a), we find that the evaluative expression in (42a) can indeed be evaluated by the antecedent of the reflexive rather than the speaker. This is made apparent in the acceptability of a continuation that expresses a contradictory opinion on the part of the speaker, as in (42b).

- (42) a. Ayu ngorah-ang anak sane masolah becik jegeg sajan...  
 Ayu AV.said-APPL person REL behave good beautiful very  
 ‘Ayu said that a good person is very beautiful...’  
 b. ...nanging tiang ngerasa anak-e ento tusing masolah becik.  
 ...but 1SG feel person-DEF DEM NEG behave good  
 ‘...but I think that person isn’t good.’

Likewise extending the epithet test to Balinese by building upon (41a), we observe that substitution of *awakne* with a coreferent epithet is impossible:

- (43) \* Ayu<sub>i</sub> ngorahang [idiot-e ento]<sub>i</sub> (ngenah) jegeg sajan.  
 Ayu AV.say idiot-DEF DEM (seem) beautiful very  
 ‘Ayu<sub>i</sub> said that the idiot<sub>i</sub> looks very ugly.’

We thus conclude that attitude holders can antecede logophoric reflexives in Balinese.<sup>16</sup>

<sup>15</sup>The possibility of subject reflexives is consistent with the absence of verbal agreement in Balinese: under Rizzi (1990)’s anaphor agreement effect, according to which the unacceptability of anaphoric subjects in languages like English follows from the incompatibility of anaphoric elements with syntactic positions construed with agreement, anaphoric subjects are predicted to be possible in languages that lack subject agreement (cf. Woolford (1999)).

<sup>16</sup>We have seen some variation between our native speaker consultants in their acceptance of the first-person morphology tests. According to Charnavel (2019), the speaker is always a salient attitude holder and, hence, that first-person anaphors like *myself* can always lack an overt local binder. For I Nyoman Udayana and I Wayan Arka (p.c.), it is very awkward for the first-person anaphor, *awak cange*, to be mentioned “out of the blue,” as in (i). But (i) and similar examples were fully acceptable for another consultant:



It is worth observing also that, just as in English (cf. (20c)) and French (Charnavel (2019)), sourcehood is not sufficient to license apparent exemption from Condition A (pace Sells (1987)). In particular, inanimate sources such as *surat kabar* ‘newspaper’ cannot antecede overtly non-local reflexives, as shown in (44).

- (44) Nyoman<sub>i</sub> ningeh uli [surat kabar]<sub>j</sub> Ayu<sub>k</sub> nanjung awak-ne  
 Nyoman AV.hear from document news Ayu AV.kick self-POSS.3SG  
 ‘Nyoman<sub>i</sub> heard from [the newspaper]<sub>j</sub> that Ayu<sub>k</sub> kicked him/herself<sub>\*i,\*j,k</sub>.’

We now discuss the possibility of empathy loci licensing apparent exemption from Condition A in Balinese. Consider the examples in (45a) and (45b):

- (45) a. Komen sane jelek indik awak-ne<sub>i</sub> ring Instagrame ngae Ayu<sub>i</sub> sebet.  
 comment REL mean about self-POSS.3SG on Instagram AV.make Ayu sad  
 ‘Mean comments about herself on Instagram made Ayu sad.’  
 b. Indik Nyoman<sub>i</sub> nyimpit awak-ne<sub>i,j</sub> ngegang Ayu<sub>j</sub> gedeg  
 that Nyoman AV.pinch self-POSS.3SG AV.make Ayu mad  
 ‘That Nyoman<sub>i</sub> pinched himself<sub>i</sub>/herself<sub>j</sub> annoyed Ayu<sub>j</sub>.’

Here again we find *awakne* in the absence of an overt local binder; in fact, the reflexive in both cases lacks a c-commanding antecedent entirely. But like English *herself*, *awakne* does not fall within the scope of an overt intensional expression in (45a) or (45b). Moreover, Charnavel (2019) argues from English and French data that the subjects of psych-verbs and equivalent psychological constructions do not express the attitude of their object. Is *awakne* therefore anteceded by an empathy locus rather than attitude holder in these examples?

Applying the tests introduced above, we find that *awakne* actually does appear to be anteceded by an attitude holder. Illustrating with (46), we find that substitution of *awakne* with a co-referential epithet is not possible:

- (46) \* Indik Nyoman nyimpit [idiot-e ento]<sub>j</sub> ngegang Ayu<sub>j</sub> gedeg  
 that Nyoman AV.pinch idiot-DEF DEM AV.make Ayu mad  
 ‘That Nyoman pinched [the idiot]<sub>j</sub> annoyed Ayu<sub>j</sub>.’

An evaluative expression in the same context can be evaluated from the perspective of *Ayu* rather than the speaker, as shown by the compatibility of (47a) with the continuation in (47b):

- (47) a. Indik Nyoman nyimpit ajak masolah becik ngegang Ayu gedeg...  
 that Nyoman AV.pinch person behave good AV.make Ayu mad  
 ‘That Nyoman pinched a good person made Ayu mad...’  
 b. ...nanging tiang ngerasa ia tusing masolah becik  
 but 1SG feel 3SG NEG behave good  
 ‘...but I think (s)he is not a good person.’

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(i) % Ayu ngenah sig awak cang-e jelek sajan.  
 Ayu seem to self 1SG-DEF bad very  
 ‘Ayu seems to myself to be very ugly.’

We are not able to answer why the first-person test is restricted in certain dialects.

These findings suggest that Balinese contrasts with English and French in that individuals may be identified as attitude holders even without intensional expressions. They also leave open the question of whether antecedence by an empathy locus is ever possible for exempt anaphors in Balinese. We leave further investigation of both points for future research, in addition to the open questions we discuss in the next subsection.

### 3.3 The Balinese Bind Construction

Having established the distributive properties of *awakne*, we now return our attention to the Balinese Bind construction, repeated in (48).

- (48) Ayu<sub>i</sub> ngenah sig awak-ne<sub>i</sub> jelek sajan.  
 Ayu seem to self-POSS.3SG bad very  
 ‘Ayu<sub>i</sub> seemed to herself<sub>i</sub> to be very ugly.’

We have shown that *awakne* does not always require an overt local binder, in particular when it is anteceded by a perspectival center. This observation alone is sufficient to weaken Wechsler’s claim that Balinese Bind constructions present a paradox for GB/Minimalism, as it is possible for *awakne* to appear in such constructions without being bound by the raised subject. This is exemplified in (49), in which *awakne* antecedes the overtly non-local attitude holder *Nyoman*.

- (49) Nyoman<sub>i</sub> ngaden Ayu<sub>j</sub> ngenah sig awak-ne<sub>i/j</sub> jelek sajan  
 Nyoman think Ayu seem to self-POSS.3SG bad very  
 ‘Nyoman<sub>i</sub> thinks Ayu<sub>j</sub> seemed to himself<sub>i</sub>/herself<sub>j</sub> to be very ugly.’

However, in this section we make a stronger claim. We argue that *awakne* in Balinese Bind constructions is never a plain anaphor bound by the raised subject but, rather, is in all cases anteceded by a perspectival center, thereby avoiding assigning a variable A/A’ status to Balinese Spec,TP.<sup>17</sup> We begin by observing that the reflexive experiencer must be read *de se*. Consider for example the unacceptability of (48) when paired with the context in (50).

- (50) 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.  
 a. # Ayu ngenah sig awak-ne jelek sajan.  
 Ayu seem to self-POSS.3SG bad very  
 ‘Ayu seemed to herself to be very ugly.’

Crucially, the unacceptability of (50) does not arise from the incompatibility of the proper name with the perspective of the experiencer. This is made apparent in (51a)-(51b), which demonstrates that both *de dicto* (51a) and *de re* (51b) interpretations are available for the raised subject; in the latter case, Ayu does not recognize Nyoman as the person who strikes her as unattractive in the photo—just as she does not recognize herself in the context in (50)—and yet the DP *Nyoman* is still felicitous.

<sup>17</sup>Wechsler’s observation was that the Balinese Bind construction indicated binding was possible from Spec,TP; we will argue instead that binding takes place lower down in the clause structure. Although our goal in this paper is to demonstrate that Balinese raising constructions are not a source of paradox for GB/Minimalism after all, this might allow us to make a stronger conclusion: Spec,TP is uniformly an A’-position in Balinese, as suggested by the simplex transitive sentences in (2a)-(2d).

- (51) Ayu is looking through photos from a party last weekend. In one photo she recognizes Nyoman, who she thinks is very handsome. In another is someone she doesn't recognize, but who seems to be unattractive. In fact, the person in the other photo was also Nyoman!
- a. Nyoman ngenah sig Ayu ganteng sajan.  
Nyoman seem to Ayu handsome very  
'Nyoman seems to Ayu to be very handsome.'
  - b. Nyoman ngenah sig Ayu jelek sajan.  
Nyoman seem to Ayu bad very  
'Nyoman seems to Ayu to be very ugly.'

We therefore conclude that (50) is ruled out because the reflexive must receive a *de se* reading: it cannot be used in a context in which the referent does not recognize herself. Recall from section 3.1 that *de se* readings are obligatory only for exempt anaphors. If *awakne* could be locally bound by the subject in Spec,TP, then we would expect the *de se* interpretation to be optional, in which case (50) would be acceptable, contrary to fact. Hence, the *de se* requirement observed in Balinese Bind constructions reveals that *awakne* is in this context exempt: licensed by antecedence by a perspectival center rather than overt local binding.

This conclusion is supported by extension of the double orientation test to the Balinese Bind construction. As was stated prior, evaluative expressions that fall within an attitudinal domain can be evaluated by either the speaker or by the attitude holder; in all other contexts, only evaluation by the speaker is available. We may therefore appeal to the interpretative possibilities of an evaluative expression that is substituted for the reflexive experiencer in (48) in order to determine whether the antecedent of *awakne* is in fact an attitude holder.

Consider a context in which *Ayu*, the referent of the reflexive, thinks that a certain individual who holds a negative opinion of her appearance is a good person, whereas the speaker considers this same individual to be a bad person. Both (52a) and (52b) can be felicitously uttered:

- (52) a. Ayu ngenah sig anak bagus ento jelek sajan  
Ayu seem to person good DEM bad very  
'Ayu seems to a good man to be very ugly.'
- b. Ayu ngenah sig anak jelek ento jelek sajan  
Ayu seem to person bad DEM bad very  
'Ayu seems to a bad man to be very ugly.'

We find that substitution of *awakne* with a coreferent epithet is unacceptable:

- (53) \* Ayu<sub>i</sub> ngenah sig [idiot-e ento]<sub>i</sub> jelek sajan.  
Ayu seem to idiot-DEF DEM bad very  
'Ayu<sub>i</sub> seemed to the idiot<sub>i</sub> to be very ugly.'

The data introduced in this section show that reflexive experiencers in Balinese Bind constructions are necessarily co-referent with a perspectival center, in particular an attitude holder. Assuming Charnavel (2019)'s proposal for logophoric binding, this reveals that the reflexive experiencer is bound not by the matrix subject, but by a null logophoric pronoun. This being the case, we would predict the reflexive experiencer to be available even in the absence of raising. Indeed, as shown in (54), this is exactly what we find: given the context and questions in (54a) and (54b), one can answer with (54c).

- (54) 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.
- What does Ayu think of the photo?
  - Why did Ayu hide the photo?
  - Ngenah sig awak-ne ia jelek sajan.  
Seem to self-POSS.3SG 3SG bad very  
'(lit.) It seems to herself that she is very ugly.'

Our findings thus eliminate the purported paradox of the Balinese Bind.<sup>18</sup>

It may be surprising to find binding by an attitude holder in this context, since the experience PP does not fall within the scope of an overt intensional operator. Recall that attitudinal binding was also found in the absence of an intensional operator in (45a)-(45b). While it is beyond the scope of this paper to determine exactly what licenses logophoricity in these cases, we hypothesize that the key lies in the fact that all of these examples express the first-personal experience of a third-person referent: the examples in (45a)-(45b) convey Ayu's emotions, while the BB construction conveys Ayu's perception of Ayu.

In order for a speaker to report on someone else's first-personal experience, they must first be granted access to that person's perspective—most likely through a prior act of self-report, or report from a trusted authority. Therefore, these sorts of sentences may presuppose a previous speech act on the part of the individual whose perspective is being presented; in Balinese, this may be enough to license covert representation of the experiencer as an attitude holder.

Although this is not possible in English, as we will discuss further in section 6, Balinese is by no means the only language which allows logophoric licensing in this context. Turkish does too:

- (55) Hande<sub>i</sub> Zeynep<sub>k</sub> [kendi-si]<sub>i/k</sub>-ne çirkin görün-üyor de-di.  
Hande Zeynep self-POSS.3SG-to ugly seem-PRES.3SG say-PST.3SG  
'Hande said that Zeynep seems to herself to be ugly.'

We will leave the precise conditions for logophoric licensing in Balinese open for future research.

### 3.4 Long-distance reflexives and monomorphemicity

We have so far seen the properties of complex anaphors like *awakne*. It has not been noted in works discussing the Balinese Bind construction, such as Wechsler (1999) or Levin (2014) that Balinese also has simplex anaphors like *awak*. In these works, *awakne* has been glossed as 'self,' and the possessive and definite suffixes left unanalyzed. *Awak* alone has a very limited distribution; it is almost always restricted to the direct object position of AV verbs:<sup>19</sup>

<sup>18</sup>Charnavel predicts that  $\text{pro}_{\log}$  can never trigger Condition B effects. However, in the BB construction, a pronoun cannot refer to the matrix subject:

- (i) \* Ayu<sub>i</sub> ngenah sig ia-(ne)<sub>i</sub> jelek sajan.  
Ayu seem to 3SG-(POSS.3SG) bad very  
'Ayu<sub>i</sub> seemed to her<sub>i</sub> to be very ugly.'

It is outside the scope of this paper to determine what the licensing conditions of Balinese pronouns are.

<sup>19</sup>Unsurprisingly, *awak* cannot appear in the Balinese Bind construction:

- (56) a. Ayu<sub>i</sub> nyimpit awak<sub>i</sub>  
 Ayu AV.pinch self  
 ‘Ayu<sub>i</sub> pinched herself<sub>i</sub>.’  
 b. \*Awak<sub>i</sub> nyimpit Ayu<sub>i</sub>  
 self AV.pinch Ayu  
 ‘She<sub>i</sub> pinched Ayu<sub>i</sub>.’  
 c. \*Awak<sub>i</sub> jimpit Ayu<sub>i</sub>  
 self OV.pinch Ayu  
 ‘She<sub>i</sub> pinched Ayu<sub>i</sub>.’  
 d. \*Ayu<sub>i</sub> jimpit awak<sub>i</sub>  
 3SG OV.pinch self  
 ‘Ayu<sub>i</sub> pinched herself<sub>i</sub>.’

As we saw prior, *awakne* may always have a long-distance antecedent. However, *awak* can never be interpreted logophorically, so this precludes it from receiving long-distance antecedents, as seen below:

- (57) Nyoman<sub>i</sub> ngaden Ayu<sub>j</sub> nanjung awak<sub>\*i,j</sub>  
 Nyoman think Ayu AV.kick self  
 ‘Nyoman<sub>i</sub> thinks Ayu<sub>j</sub> kicked herself<sub>\*i,j</sub>.’

We close this section by noting that Balinese challenges a long-standing generalization which Charnavel (2019) has argued is likely to be false. We have just seen data which contradicts a long-standing generalization concerning reflexives first pointed out by Faltz (1985): long-distance anaphors tend to be monomorphemic. Pica (1987) on the other hand claims that they are required to be monomorphemic. A classical example of this, and perhaps the most studied, is the Chinese reflexive *ziji*.<sup>20</sup> *Ziji* can have long-distance antecedents as the syntactic object of the embedded verb:

- (58) Zhangsan<sub>i</sub> zhidao Lisi<sub>j</sub> xihuan ziji<sub>i/j</sub>.  
 Zhangsan know Lisi like self  
 ‘Zhangsan<sub>i</sub> knows Lisi<sub>j</sub> likes himself<sub>i/j</sub>.’ (Giblin, 2016, p. 58)

The dominant position in the literature—first argued for by Pica (1987) and later by Cole et al. (1990)—is that the availability of non-local binding in examples like (58) follows from the monomorphemicity of *ziji*. The reasoning is simple: the morphologically complex reflexive *ta-ziji*, made up of the addition of the third person pronoun *ta*, precludes the possibility of long-distance binding in any context; an illustration is given below:

- (59) Zhangsan<sub>i</sub> zhidao Lisi<sub>j</sub> xihuan ta-ziji<sub>\*i/j</sub>.  
 Zhangsan know Lisi like 3SG-self  
 ‘Zhangsan<sub>i</sub> knows Lisi<sub>j</sub> likes himself<sub>\*i/j</sub>.’ (Giblin, 2016, p. 58)

One explanation for this is given as follows. Cole et al. (1990) argues that long-distance reflexives are interpreted via head movement, and this can only occur with morphologically simplex anaphors. Complex anaphors are not capable of head movement, so they can only be bound locally.<sup>21</sup> But there are obvious problems with Pica (1987)’s strong assertion that long-distance

---

(i) \*Ayu ngenah sig awak jelek sajan.  
 Ayu seem to self bad very  
 ‘Ayu seemed to herself to be very ugly.’

<sup>20</sup>See Reuland et al. (2019) for an argument for *ziji* actually being bimorphemic.

<sup>21</sup>For a more complete list of simplex anaphors which may have long-distance antecedents, and relevant references, the reader is referred to Chapter 5 of Charnavel (2019).

anaphors must be monomorphemic; as discussed in section 3.1 prior, English’s *him/herself*, which seems to be a complex anaphor, can have non-local antecedents in certain contexts.

To avoid this issue, Haspelmath (2008) provides the most generous interpretation possible of this generalization. The definition is as follows (Haspelmath, 2008, p. 19):

- (60) **Haspelmath’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.

In other words, if the local and long-distance reflexives in a language differ, long-distance pronouns must be simpler (or monomorphemic) and local pronouns must be more complex (bimorphemic or bigger). Here are some examples, repeated from Haspelmath (2008)’s Table 9, to which we have added Balinese in bold:

**Table 2:** Local and long-distance reflexives

	Local reflexive	Long-distance reflexive
Mandarin	(ta)ziji	ziji
Icelandic	sjalfan sig	sig
Dutch	zichzelf	zich
Telugu	tanu tanu	tanu
Bagvalal	e-b-da	e-b
Malay	diri-nya	diri-nya
English	him-self	him-self
<b>Balinese</b>	<b>awak</b>	<b>awak-ne</b>

As is made apparent in the table above, Balinese contradicts Haspelmath’s Universal 7, exhibiting the exact opposite pattern than is predicted. The simplex anaphor is monomorphemic and can never be long-distance. On the other hand, the complex anaphor is bimorphemic, and yet behaves as an exempt anaphor. In addition, although the head movement account of long-distance reflexives has since been disputed, it is worth observing that Balinese provides a severe problem for such an approach, given that head movement would have to apply to complex anaphors but not to simplex anaphors, contrary to what the account claims.

## 4 Untangling the Balinese Bind

After having provided the empirical basis for our solution, we now focus on its theoretical aspects. Section 4.1 introduces the theoretical formulation of Charnavel (2019)’s account of logophoric binding. Section 4.2 provides a theoretical account of the Balinese Bind: appealing to covert logophoric binding allows us to sidestep the issue of whether Spec,TP is an A- or A’-position.

### 4.1 Charnavel (2019)

Having already presented the empirical basis of Charnavel (2019)’s framework for logophoricity in section 3, we now present how she accounts for this theoretically. As noted above, Charnavel (2019) argues that it is not coincidental for plain and exempt anaphors to be identical in all

the languages that she discusses. For her, plain and exempt anaphors are one and the same: they both must have local antecedents, and the various properties of exempt anaphors—namely, their availability to take partial, split, and long-distance antecedents—are an illusion. The appearance of exemption rather arises from optional binding by a covert logophoric pronoun that syntactically realizes the perspectival center associated with the content of the domain containing the anaphor.

Charnavel adopts a phase-based formulation of Condition A, given in (61).

(61) **Phase-based formulation of Condition A:**

An anaphor must be bound within its smallest Spell-Out domain.

According to Charnavel, every Spell-Out domain optionally contains a logophoric projection, LogP, headed by a perspectival operator  $OP_{LOG}$ . This operator licenses a covert logophoric pronoun,  $pro_{log}$ , as its specifier and requires that its complement, schematized as P in (62a), is compatible with the first-personal perspective of the referent of  $pro_{log}$ , as captured in the denotation in (62a). The intuition behind this is that each phase can be specified as being presented from the perspective of a certain individual:

- (62) a.  $[_{LogP} pro_{log-i} OP_{LOG} [P \dots logophor_i \dots ]]$   
 b.  $[[OP_{LOG}]] = \lambda P. \lambda x: P \text{ from } x\text{'s first-personal perspective}$

We schematize the difference between plain and exempt anaphors below, where  $Ph_0$  refers to a phase head, and XP is the Spell-Out domain of  $Ph^0$  in (63b), and LogP is the Spell-Out domain in (63a). This is to illustrate the very similar syntactic structure between the two, where the only difference between an exempt and plain anaphor is the binder: the former is covertly locally bound by a perspectival center while the latter is still locally bound, but not by  $pro_{log}$ . It should be noted that, like other forms of pronouns, including covert *pro*,  $pro_{log}$  does not require a local binder.

- (63) a. **Exempt anaphor:**  $[_{PhP} Ph^0 [_{LogP} pro_{log-i} OP_{LOG} [XP \dots exempt \text{ anaphor}_i \dots ]]]$   
 b. **Plain anaphor:**  $[_{PhP} Ph^0 [XP \dots DP_i \dots plain \text{ anaphor}_i \dots ]]$

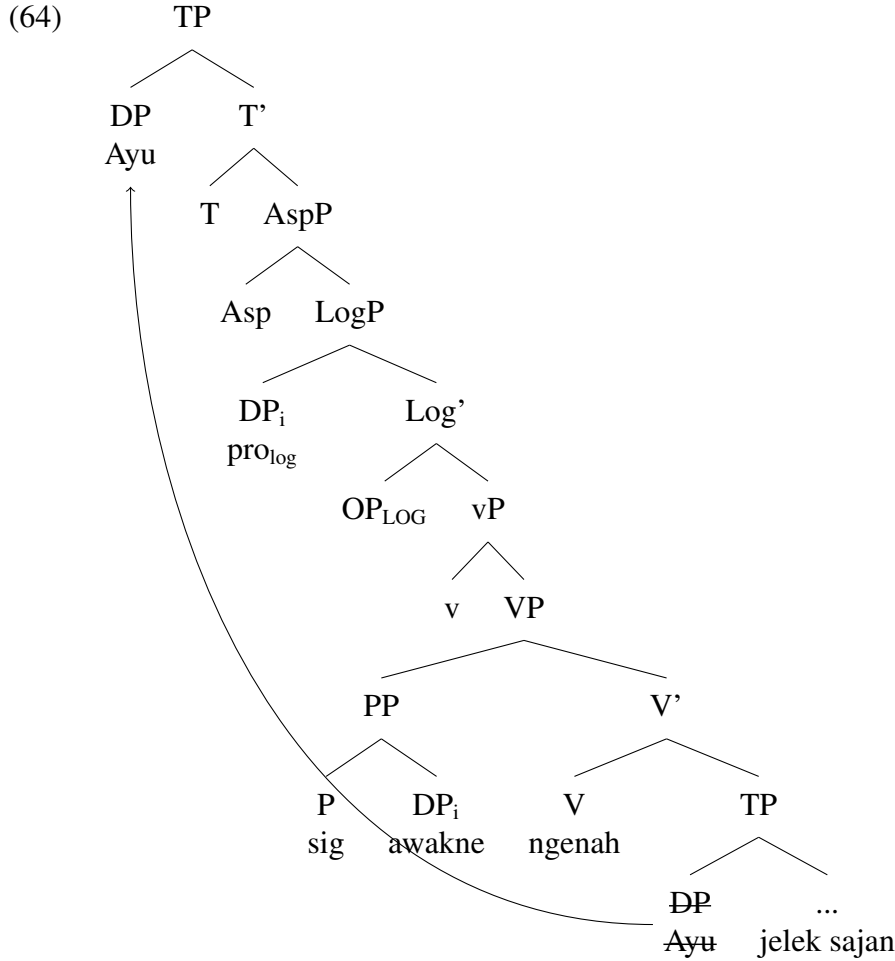
Recall from section 2.1 that we follow Hinterhölzl (2006) in identifying the lowest phase as AspP, with vP comprising its Spell-Out domain, though this is not a necessary assumption for the argument to go through. We also follow Charnavel and Sportiche (2016) in assuming that anaphors require a local binder within the minimal Spell-Out domain. For (7a) and (7c), this requirement is straightforwardly satisfied: the reflexive IA is c-commanded by the EA in its base position, and Condition A is checked prior to any movement operations.

In (7b) and (7d), the reflexive EA is not c-commanded by the intended IA antecedent in base position. While the IA does c-command the EA following movement, this movement renders the IA external to the minimal Spell-Out domain containing the EA. This gives us the desired result: we correctly predict the acceptability of (7a) and (7c), while correctly ruling out (7b) and (7d).

## 4.2 The Solution

The data presented in section 3 indicates two things: first, that *awakne* may be logophorically interpreted in certain contexts, and second, that logophoric binding—and not binding by the raised DP—licenses reflexive experiencers in Balinese Bind constructions. In light of these findings, we

propose the following syntactic structure for Balinese Bind constructions, where the experiencer-PP is a specifier of *seem*, and the experiencer anaphor is locally bound by  $pro_{log}$ .<sup>22</sup> The tree in (64) represents the BB construction; LogP is where binding occurs for Charnavel:



(65) [TP Ayu<sub>i</sub> ... [vP [LogP pro<sub>log-i</sub> OP<sub>LOG</sub> [vP [PP sig awakne<sub>i</sub>] [v' ngenah [TP t<sub>i</sub> jelek sajan]]]]]]]

The most natural location to insert the logophoric operator is the Spell-Out domain of AspP. However, in light of Citko (2014)'s claim that PPs—with or without subjects—may also comprise phases, one may alternatively locate LogP within the experiencer PP. We leave consideration of this alternative for future research.

We believe that our account is preferable over both Levin's and Travis's: these approaches do not make any of the predictions we have observed in section 3 above; but, rather, are purely technical fixes, shedding no further light on the nature of Balinese reflexives.

In short, we propose that the licensing of reflexive experiencers in the Balinese Bind construction arises not from binding by the raised subject but, rather, by a null logophoric pronominal located within the Spell-Out of vP. BB constructions do not contradict the observation that binding from Spec,TP is otherwise not possible. We now move on to discuss the implications of our data to claims that have been made in the literature, and Agree-based theories of anaphora.

<sup>22</sup>Note that the precise location of the experiencer PP does not matter for our account as long as the PP occurs within the Spell-Out domain of vP, such that the PP is c-commanded by  $pro_{log}$ .



## 5 Agree-based theories of *awakne*

The final substantive section of this paper discusses a currently attractive approach to anaphors: Agree-based theories. Section 5.1 provides a background as to why Agree-based theories of anaphora might be attractive. Section 5.2 presents one of two puzzles for Rooryck and Vanden Wyngaerd (2011)'s Agree-based approach, based on the unlikelihood of homophony. 5.3 discusses the second; that is, whether the existence of simplex anaphors in languages can be derived in Rooryck and Vanden Wyngaerd (2011) (R&W)'s framework.

### 5.1 The Anaphor Agreement Effect

An attractive idea in the literature has been that anaphors, by their very nature, are deficient in terms of  $\phi$ -features, and require  $\phi$ -agreement to be licensed. The point of these approaches is to derive reflexive dependencies via independently motivated morphosyntactic operations without the need to posit independent theories of binding. One line of support for this is Rizzi (1990)'s Anaphor Agreement Effect, which seems to suggest a tight interaction between  $\phi$ -feature agreement and binding:

- (66) Anaphors do not occur in syntactic positions construed with agreement.

Since anaphors lack  $\phi$ -features, they aren't able to participate in agreement relations, thus blocking anaphors from the subject position of finite clauses that exhibit subject-verb agreement (ex. \**John thinks that himself loves Mary*). In light of this observation, authors like Rooryck and Vanden Wyngaerd (2011) and Reuland (2011) have tried to reduce the binding of anaphors to syntactic  $\phi$ -features, and such approaches have become popular in Minimalist approaches to syntax.

Based on the AAE, we would expect that in languages without verbal agreement, anaphors may be allowed in the subject position of an embedded clause. Consistent with this prediction, Balinese has no verbal agreement and allows *awakne* in the embedded subject position, as seen in (67), similar to (41a) seen above in section 3:

- (67) Nyoman<sub>i</sub> ningeh [awak-ne<sub>i</sub> laka malaib].  
Nyoman AV.hear self-POSS.3SG FUT MV.run  
'Nyoman<sub>i</sub> heard that he<sub>i</sub> would run away.'

Therefore, *prima facie* it may seem reasonable to extend an Agree-based approach to Balinese; indeed, Levin (2014) proposes that the Balinese Bind can be accounted for within R&W's theory of reflexive licensing, as seen in section 2.2.

### 5.2 Accounting for logophoricity in Balinese

Rooryck and Vanden Wyngaerd (2011) (R&W) argue that seemingly long-distance anaphors, like *awakne*, are logophoric pronominal elements that enter a derivation with valued  $\phi$ -features, just like regular pronouns. They further claim that there exists homophony between the anaphor and logophor to account for the properties of the latter.<sup>23</sup> In the rest of this section, we consider an empirical argument against such homophony from Balinese anaphors, by comparing to Malay.<sup>24</sup>

<sup>23</sup>It seems coincidental that there would be homophony between reflexives and logophors in not only English, but also Malay, Turkish, Chinese and many other languages, as Charnavel (2019) points out.

<sup>24</sup>The data from Malay in this paper is from Cole and Hermon (2005).

The reason we do so is to show that long-distance anaphors in Malay actually do behave like pronouns, but Balinese long-distance anaphors do not; hence, it is unclear whether they can be homophonous with pronouns. We will argue that Balinese complex anaphors, which may be logophorically interpreted, can never behave as a pronoun, contra R&W.<sup>25</sup>

In Malay, the third person reflexive is made up of *diri* 'self' and 3SG pronoun *-nya*. Like Balinese *awakne*, *dirinya* may have long-distance antecedents as seen below:<sup>26</sup>

- (68) Aminah tahu saya memberi Siti buku tentang diri-nya.  
 Aminah know 1SG give Siti book about self-3SG  
 'Aminah<sub>i</sub> knew I gave Siti<sub>j</sub> a book about herself<sub>i,j</sub>.'

The sentence below in (69) provides two pieces of evidence in support of its pronoun-like behavior. *Dirinya* merely needs a contextually salient individual to refer to, like a pronoun; nor does its antecedent need to appear within the same sentence:

- (69) [Bapak Siti<sub>j</sub>]<sub>i</sub> tidak suka dirinya<sub>i,j,k</sub>  
 Father Siti not like self.3SG  
 'Siti<sub>j</sub>'s father<sub>i</sub> does not like him/herself<sub>i,j,k</sub>.'

Further, like a regular pronoun, *dirinya* can have a strict interpretation under ellipsis:

- (70) John nampak diri-nya di dalam cermin; Frank pun.  
 John see self-3SG in inside mirror; Frank too.  
 Strict: 'John saw himself in the mirror and Frank saw himself too.'  
 Sloppy: 'John saw himself in the mirror and Frank saw John too.'

Putting aside the coincidental nature of this homophony, R&W's account of homophony may be tenable for Malay. But this doesn't seem to get the right results in Balinese. Unlike *dirinya*, *awakne* cannot behave like a pronoun. First, unlike a pronoun, *awakne* must corefer with a c-commanding antecedent (repeated from (34) above):

- (71) [Bapan Ayu<sub>j</sub>]<sub>i</sub> sing nemenin awak-ne<sub>i,\*j,\*k</sub>  
 Father Ayu NEG AV.like self-POSS.3SG  
 'Ayu<sub>j</sub>'s father<sub>i</sub> does not like himself<sub>i,\*j,\*k</sub>.'

Second, as expected of a reflexive, *awakne* can only have a sloppy interpretation under ellipsis, behaving in a manner similar to *ziji* in Chinese:<sup>27</sup>

- (72) Nyoman napukin awak-ne di kacane lan Arta mase keto  
 Nyoman AV.see self-POSS.3SG in mirror and Arta also too  
 'Nyoman saw himself in the mirror and Arta saw Nyoman too.' (sloppy only)

The complex reflexives in Malay and Balinese hence have different properties: Malay's behave like pronouns, Balinese's do not. So, what exactly would the Balinese anaphors be homophonous with under the R&W approach? If they cannot be homophonous with logophoric pronouns, then it is unclear what they could be homophonous with.<sup>28</sup> As such, the notion of homophony needs more work under an Agree-based approach.

<sup>25</sup>Udayana (2013) makes the same observation, though without illustrative data.

<sup>26</sup>The astute reader will notice that Malay's *dirinya* is not subject to first- or second-person blocking effect, like Balinese's *awakne* and unlike Chinese's *ziji*.

<sup>27</sup>See Büring (2005) for further details on the sloppy vs. strict contrast under ellipsis with anaphors and pronouns.

<sup>28</sup>Providing an explanation of this under Charnavel's account would go beyond the scope of the paper. However,

### 5.3 Accounting for Simplex reflexives in Balinese (and beyond)

In this subsection, we present R&W's derivation of simplex anaphors. As noted in 2.4, Balinese has simplex anaphors; Levin does not note this, and it remains an open question as to whether simplex anaphors in Balinese are derivable in the R&W account, which Levin assumes.

We argue that the R&W approach in fact does not predict the existence of simplex anaphors in languages like Balinese, in which the complex anaphor is composed of the simplex form plus a possessive affix. The problem can be stated very simply as follows: if R&W is correct in thinking that the simplex anaphor is possessed by its antecedent, then why do simplex anaphors in languages like Balinese exist, where the complex anaphor is made up of a possessive suffix and the simplex anaphor? We now introduce the reader to R&W's account and our argument in more detail.

Recall that the third person complex anaphor *awakne* in Balinese is glossed as *self-3POSS*; in other words, it is made up of the simplex anaphor and a possessive suffix. This is the same suffix that is used in simple possessive constructions such as *pipis-ne* 'his/her money-3POSS'.<sup>29</sup> Balinese is not the only language like this; in Turkish both the complex reflexive and simple possessive constructions bear a possessive suffix, but in Turkish it is much clearer that the suffix bears  $\phi$ -feature agreement. The Turkish paradigm is given below:

- (73) a. *kendi-m* self-1SG "myself" vs. *para-m* money-1SG "my money"  
 b. *kendi-n* self-2SG "yourself" vs. *para-n* money-2SG "your money"  
 c. *kendi-si* self-3SG "him/herself" vs. *para-si* money-3SG "his/her money"

With this in mind, we now present R&W's derivation of simplex anaphors, according to which the simplex anaphor is possessed by its antecedent at the early stage of the derivation, at which point the anaphor receives its  $\phi$ -features. To use the example of the Dutch simplex anaphor *zich*, in a sentence like (74a) below, the antecedent of the simplex anaphor is a possessor, much like how *Mary* is the possessor of *leg* in *Mary's leg*. The antecedent subsequently moves to Spec,TP, as shown in (74b):

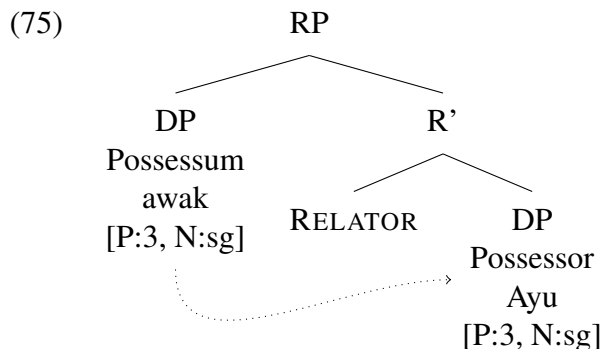
- (74) a. Milo heeft zich bezeerd.  
 Milo has self hurt  
 'Milo hurt himself.' (Rooryck and Vanden Wyngaerd, 2011, p. 55)  
 b. Milo<sub>possessor</sub> [hurt [RP [DP1 self<sub>possessum</sub>] [R [DP2 Milo<sub>possessor</sub>]]]]

The structure in (74b) assumed by R&W is based on den Dikken (2006)'s structure of possessive constructions, in which the possessum originally c-commands the possessor and the head of the possessive construction is the functional projection RELATOR, as in (75) below. The reflexive

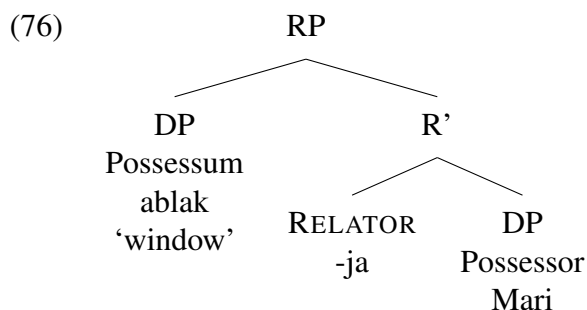
it is possible that like the pronoun-like nature of Malay reflexives is similar to that of Turkish complex reflexives, for which Major and Özkan (2018) provide an account under Charnavel's framework. Major and Özkan (2018) argues that the pronoun-like nature of Turkish reflexives are possible only in certain contexts involving contrastive, emphatic or corrective focus, or honorific constructions. We have not been able to determine whether reflexives in Malay may have similar constraints.

<sup>29</sup>It is not clear if the first and second person anaphors and possessive constructions in Balinese have possessive suffixes. Although in Udayana (2013)'s glossing, even these anaphors and simple possessive constructions bear  $\phi$ -feature agreement (ex. *cange* in *awak cange* is 1POSS) this conclusion could be mistaken. For Haiduck (2014), *cang-e* is glossed as 1SG-DEF. Regardless, the argument in this subsection still applies to the third person anaphor *awakne* in Balinese and to all Turkish anaphors.

*awak* enters the derivation with unvalued  $\phi$ -features and it probes the Possessor, the antecedent (ex. *Ayu*), for its  $\phi$ -features:



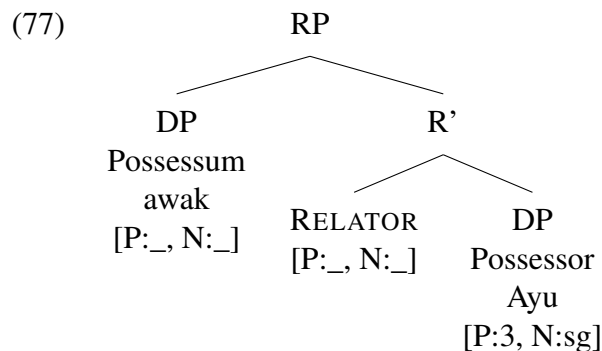
In languages with possessive suffixes, den Dikken (2006) proposes that the structure illustrated in (75) is found in simple possessive constructions; this is shown in (76) for the Hungarian example *Mari ablak-ja* ‘Mari’s window-POSS.3SG’ in which the possessive suffix *-ja* is assumed to spell out the RELATOR.<sup>30</sup>



In this way, both simplex anaphors and simple possessive constructions originally have the same structure. Therefore, if the simplex anaphor truly is possessed by its antecedent, why does the simplex anaphor not have a possessive suffix in Balinese or Turkish? This is more troubling than it appears: it seems to incorrectly predict that simplex anaphors do not, or cannot, exist in these languages. Of course, it would be possible for R&W to stipulate that possessive affixes are not pronounced when the possessum is a reflexive. But this would not be an independently motivated answer to the problem at hand. Further, this might lead to Activity Condition violations.

Here is why. How is the possessive suffix spelled out in den Dikken’s approach? He does not provide an answer to this, but one very natural answer is to stipulate the presence of a Poss functional projection in languages with possessive affixes such as Balinese, following Alexiadou et al. (2007) among others, which is unspecified for  $\phi$ -features. Poss agrees with the possessor to represent its  $\phi$ -features in the form of a possessive affix at PF. For simplicity, let us move these  $\phi$ -features to RELATOR. Now, note that in (77) below, both the simplex anaphor and RELATOR have unvalued  $\phi$ -features and each of them need to agree with the possessor:

<sup>30</sup>We have simplified den Dikken’s derivation for the sake of clarity, by removing unnecessary syntactic projections and the alienability vs. inalienability distinction. We have also removed the necessary movements to derive the correct word order in (76). Furthermore, Rakosi (2009) points out that reflexives in Hungarian are also made up of the possessive suffix, like possessive constructions”; hence, like Balinese and Turkish, Hungarian poses a problem for R&W’s account for the reasons discussed below.



Following R&W's own account which necessarily assumes the Activity Condition—mentioned in fn. (9) as R&W's answer for the ungrammaticality of sentences like *Herself loves Caitlin*—the structure in (77) would not allow the  $\phi$ -features of the anaphor to be valued. This is because RELATOR is able to Agree with the possessor before the simplex anaphor is even Merged. Once again, this leads to the undesirable consequence that simplex anaphors are predicted to not exist in Balinese, Turkish and Hungarian; in fact, they are underivable with the Activity Condition.

To recap, the existence of simplex anaphors in Balinese and other languages where the complex anaphor is made up of the simplex anaphor plus a possessive affix is another puzzle for R&W's Agree-based approach to anaphora.

## 6 Conclusion

As has been mentioned multiple times throughout the paper thus far, multiple questions remain open to future research. But perhaps the most pressing is the syntax and semantics of the *seem*-construction in both Balinese and English. Unlike Balinese, in English, it seems that the reflexive experiencer can never be logophorically bound. Some tests from Balinese that helped to establish the presence of a perspectival center do not work in English; *myself* is not freely allowed, nor can the reflexive be read long-distance, both of which would indicate the presence of an exempt anaphor. Based on our approach to Balinese, we would predict English to behave in the same manner, but it does not:

(78) \* (I think that) Lisa seems to myself to be very happy.

(79) \* John thinks that Lisa seems to himself to be very happy.

Regardless, we have tried to show that the Balinese Bind construction does not pose a problem to GB and Minimalist theories of syntax. In order to accomplish this, we have presented a wealth of novel data to demonstrate a property of Balinese complex anaphors like *awakne* that has previously gone unnoticed in the literature on the BB: they are obligatorily interpreted logophorically in the BB construction.

Within the framework of Charnavel (2019), this indicates that *awakne* is actually bound by a null logophoric pronoun in Balinese Bind constructions. By showing that *awakne* in the Balinese Bind construction is actually bound within vP, we have provided an alternate solution of the Balinese Bind. It is not relevant whether Spec,TP is an A- or A'-position in Balinese. This proposal thus rescues Minimalism from the Balinese Bind, in addition to improving on previous Mini-

malist approaches as well as Wechsler's HPSG approach, none of which predict *awakne*'s wider distribution and interpretive properties.

In addition to unraveling the Balinese Bind, we have also attempted to shed light on other issues in the literature on anaphora. Balinese provides a genuine counterexample to the prominent generalization: if a language has both long-distance and local anaphors available, the local anaphor is at least as complex phonologically as the long-distance one. Balinese is literally the opposite, plainly contradicting this generalization.

In addition, we have pointed out that while Agree-based theories of anaphora can account for the Balinese Bind, they are challenged by two additional puzzles posed by Balinese, namely logophoric interpretations of *awakne* and derivation of the simplex anaphor *awak*. To conclude, further study into the anaphora of understudied languages might shed light on current theories of reflexives.

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