

(UNDER)SPECIFICATION COUNTS: WHEN NON-LOCAL ANAPHORS ARE NOT EXEMPT\*

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1 Introduction

Further developing ideas in Charnavel and Sportiche (2017), Charnavel (2019, 2020) develops a novel approach to non-local anaphor binding. It is proposed that where anaphors appear to allow a non-local antecedent (informally, an antecedent beyond the nearest subject),<sup>1</sup> there is in fact a local binder in the form of a silent pronominal element – *pro<sub>log</sub>* – which is the “subject of a logophoric operator  $OP_{LOG}$  heading a logophoric projection  $LogP$  in the left periphery” (Charnavel 2019: 215) of the local domain containing the anaphor. In this *pro<sub>log</sub>* approach, then, the picture for long-distance anaphors in (1a) is replaced by the picture in (1b) after Charnavel (2019: 217), omitting irrelevant details).<sup>2</sup>

- (1) a. [CP DP... V [clause DP ...V ... [ Governing category DP ... V Anaphor ]]]



Anaphor binding

- b. [CP DP... V [clause DP ...V ... [ Governing category [pro<sub>Log</sub> [DP ... V Anaphor ]]]]]



Non-local antecedency relation

Local anaphor binding

The anaphor is locally bound by *pro<sub>log</sub>* which is itself anteceded by the element appearing to act as the non-local binder of the anaphor. Since *pro<sub>log</sub>* is a pronominal the latter dependency can be non-local. As Charnavel shows, there is an animacy requirement on non-local antecedents. This requirement and further conditions on their discourse status, are taken to be embodied in *pro<sub>log</sub>*, whose properties are dependent on the *logophoric operator*. In section 3 we come back to this, showing

that the animacy requirement on non-local binding is in fact independent of logophoricity, and that logophoricity itself is not necessarily locally marked.

A key role in the discussion is played by an extension of the notion of *exemption*. Under the original notion of exemption, an anaphor was defined as exempt (Pollard and Sag 1992, 1994; Reuland 2011) or 'logophoric' (Reinhart and Reuland 1991, 1993) when it occurs in a specific type of position, where properties of the *structure* prevent condition A from applying and enforcing locality. Such an anaphor, then, allows a non-local antecedent, subject to discourse conditions or may even lack a sentential antecedent.<sup>3</sup> Under the *prolog* approach, the notion of exemption is redefined: any anaphor with a non-local antecedent is hypothesized to fall under the notion of exemption, to be valued by the *prolog* element as in (1b), and as such expected to exhibit the properties of a logophor. As Charnavel (2019: 321) writes "By and large, the results have confirmed that the null-hypothesis, according to which purported long-distance anaphors should be reduced to exempt anaphors is viable - pending the exploration of further cross-linguistic cases". Following up on this, we carried out such an exploration.

Crucially, the 2-step process in (1b) predicts a general difference between locally and non-locally bound/exempt anaphors, based on a well-known test for status as a true anaphor (cf. Bouchard 1984), as opposed to being pronominal, involving split antecedency and partial binding (Charnavel 2019: 277). Pronominals can be valued as the join of two NP values (a split antecedent) or as a member of a coordinated NP (partial binding) as in (2) and (3):

- (2) John<sub>i</sub> told Mary<sub>m</sub> that they<sub>i+m</sub> should leave.
- (3) John<sub>i</sub> and Mary<sub>m</sub> were convinced that Suzy would help her<sub>m</sub>.

True anaphors, however do not allow split antecedents (Giorgi 1984, Bouchard 1984, Anagnostopoulou and Everaert 2013), nor partial binding; see (4) and (5):

(4) Split antecedent: \*John<sub>i</sub> believes Mary<sub>m</sub> to like only themselves<sub>i+m</sub>.

(5) Partial binding: \*John<sub>i</sub> and Mary<sub>m</sub> enjoyed herself<sub>m</sub>.

Charnavel argues that, unlike true anaphors (plain anaphors in her terms), exempt anaphors allow split antecedents and partial binding because their dependency is mediated by a pronominal - *pro*<sub>log</sub>. This is borne out for French, see (6), Charnavel (2020: 717), and (7), Charnavel (2020: 677):

(6) Christel<sub>i</sub> pense qu' Agnès<sub>k</sub> a dit que l' avenir de son fils

[<sub>VP</sub> *pro*<sub>log-i+k</sub> dépend d'elles<sub>i+k</sub>-mêmes et de leurs chers parents].

'Christel<sub>i</sub> thinks that Agnes<sub>k</sub> said that her son's future

[<sub>VP</sub> *pro*<sub>log-i+k</sub> depends on themselves<sub>i+k</sub> and their dear parents].'

(7) Zoé<sub>i</sub> et Paul font de l'ombre à sa<sub>i</sub> propre fille et à la fille de la voisine.

'Zoe<sub>i</sub> and Paul are shading her<sub>i</sub> own daughter and the neighbor's daughter.'

A similar pattern obtains for exempt anaphors in English picture nouns, as illustrated by the split antecedent example in (8) (Charnavel 2019: 6, citing Lebaux 1984:346):

(8) John<sub>i</sub> told Mary<sub>k</sub> that there were some pictures of themselves<sub>j+k</sub> inside.

In the next section we evaluate Charnavel's null hypothesis against data involving  $\phi$ -deficient anaphors, and show that i. exemption as originally identified by Pollard and Sag and Reinhart and Reuland, only applies to  $\phi$ -specified anaphors (anaphors with their  $\phi$ -features fully valued);  $\phi$ -deficient anaphors do not show exemption effects; and ii. cross-linguistically, there is a class of  $\phi$ -deficient long-distance anaphors which don't show exemption effects either. These results indicate a typological distinction between  $\phi$ -deficient and  $\phi$ -specified anaphors, going against what the *pro*<sub>log</sub> approach leads one to expect. Hence, this approach cannot be maintained in the form given.<sup>4</sup>

## 2 Exploring the hypothesis

### 2.1 A restriction on ‘exemption’

Consider Dutch, which shows the same pattern as English when the anaphoric element *hemzelf/henzelf* [PRON SELF] is used in an exemption context, while replacing *hemzelf/henzelf* with *zichzelf* (*zich* is underspecified for number and gender),<sup>5</sup> is just ill-formed see (9):<sup>6</sup>

- (9) a. Jan<sub>i</sub> zei tegen Marie<sub>m</sub> dat die foto’s van *hemzelf*<sub>i+m</sub>/*\*zichzelf*<sub>i+m</sub> verschrikkelijk waren.  
‘John<sub>i</sub> said to Mary<sub>m</sub> that those pictures of themselves<sub>i+m</sub> were terrible.’
- b. Jan<sub>i</sub> en Marie<sub>m</sub> hopen dat Suzy die foto van *hemzelf*<sub>i</sub>/*\*zichzelf*<sub>i</sub> zal verscheuren.  
‘John<sub>i</sub> and Mary<sub>m</sub> hope that Suzy will tear up that picture of himself<sub>i</sub>.’

In (9b) *Suzy* is the only admissible antecedent for *zichzelf*. As we will see, this pattern is more general. Exemption is subject to a restriction, so far not systematically discussed and not expected under the *prolog* approach:<sup>7</sup>

### (10) An effect of underspecification

When the pronominal element in an anaphoric expression, in an exemption context as originally defined, is replaced by a  $\phi$ -deficient element no exemption obtains and neither a split antecedent, nor partial binding is available.

In German we see this pattern in (11), formed after Jackendoff (1972):

- (11) Die Königin<sub>i</sub> fordert dass Bücher mit unvorteilhaften Beschreibungen von  
The queen demands that books with unflattering descriptions of  
*sich*<sub>\*</sub>/*sich selbst*<sub>\*</sub>/*ihr selbst*<sub>i</sub>/*ihr*<sub>i</sub> verbrannt werden.  
SE/SE SELF/PRON SELF/PRON burned be

‘The queen demands that books containing unflattering descriptions of herself will be burned.’

Both *sich* and *sich selbst* are impossible here.<sup>8</sup> Consider next Scandinavian.

The Scandinavian languages have SE-anaphors<sup>9</sup>, such as Norwegian *seg*, and Icelandic *sig*, which are underspecified for number and gender, and allow non-local binding in a wider range of contexts than Dutch *zich* or German *sich* (see e.g. Everaert 1986; Hellan 1988, 1991; Thráinsson 1979, 1991, 2007 and the references cited there). In contexts that are typical of exemption in English the counterparts with  $\phi$ -deficient anaphors in Scandinavian are all ill-formed, just like their counterparts in Dutch and German. The Norwegian equivalent of Pollard and Sag (1994: 270)’s well-known example in (12a) is given in (12b), and is entirely impossible for *seg* and *selv*, as observed by Lødrup (2009:121):<sup>10</sup>

- (12) a. John<sub>i</sub> was going to get even with Mary. The picture of himself<sub>i</sub> in the paper would really annoy her, as would the other stunts he had planned.
- b. John<sub>i</sub> skulle bli skuls med Mary. \*Bildet av seg (selv)<sub>i</sub> i avisen John should get even with Mary. picture.DEF of SE SELF in paper.DEF ville virkelig ergre henne.  
would really annoy PRON  
‘John was going to get even with Mary. The picture of himself in the paper would really annoy her.’

The same applies to Norwegian (13) (Lødrup 2009: 121). According to our informants, Icelandic (Reuland and Everaert 2023) does not show an exemption effect either, see (14):

- (13) \*Bildet av seg (selv)<sub>i</sub> i Newsweek dominerte Johns<sub>i</sub> tanker  
picture.DEF of SE SELF in Newsweek dominated John’s thoughts

‘The picture of himself in Newsweek dominated John’s thoughts.’

(14) Jón<sub>i</sub> ætlaði að hafna sín á Maríu.

John intended to revenge SE on Mary

Myndin af \*sér<sub>i</sub>/honum<sub>i</sub> í blaðinu myndi ergja hana mikið.

The picture of SE/PRON in the paper would annoy her a lot

In a nutshell, the class of exempt anaphors in the original sense is restricted: they must be fully specified for  $\phi$ -features. That SE-anaphors with or without a SELF-element are impossible in typical exemption contexts is surprising under the *prolog* approach, since the languages discussed all allow non-local anaphors; therefore, their lexical inventory is expected to contain *prolog*.<sup>11</sup> It is unclear, then, how this element could be prevented from being inserted in the environment of SE-(SELF) anaphors, yielding the wrong result.<sup>12</sup>

## 2.2 Split antecedents and partial binding

Consider next non-locally bound SE-anaphors, as in Norwegian (15) and Icelandic (16a) with infinitives and (16b) with a subjunctive.<sup>13</sup>

(15) Dronninge<sub>i</sub> bad Alex<sub>j</sub> PRO<sub>j</sub> la folket vurdere seg<sub>i/j/\*i+j</sub>.

queen.DEF ask.PAST Alex PRO let.INF assess.INF SE

‘The queen asked Alex to let the people assess SE.’

(16) a. Kóngurinn<sub>i</sub> bað Alex<sub>j</sub> að PRO<sub>j</sub> láta fólkið meta sig<sub>i/j/\*i+j</sub>.

king.DEF ask.PAST Alex to PRO let.INF people.DEF assess.INF SE

‘The king asked Alex to let the people assess him.’

b. Jón<sub>i</sub> heldur að Haraldur<sub>j</sub> hafi sagt að María eigi að þvo sér<sub>i/j/\*i+j</sub>.

Jon believes that Harald has.SUBJ said that Maria should.SUBJ to wash.INF SE

‘Jon believes that Harald has said that Maria should wash them.’

Unlike what the *prolog* approach leads us to expect, split antecedents are impossible here.<sup>14</sup> Note that the Scandinavian languages have dedicated reflexive possessives such as Norwegian *sin* (deficient for number and gender). These SE-anaphors allow non-local binding, but don't allow partial binding, as the ill-formedness of the Norwegian and Icelandic counterparts of (7), in (17) and (18) respectively, show:<sup>15</sup>

(17) \*Zoé<sub>i</sub> og Paul<sub>j</sub> bad meg finne skygge for sin<sub>i</sub> egen datter og naboens datter.

Zoé and Paul asked me to provide shade for SE.POSS own daughter and the neighbor's daughter

(18) \*Anna<sub>i</sub> og Páll<sub>j</sub> báðu mig að gera skugga fyrir dóttur sína<sub>i</sub> og dóttur nágrennans.

Anna and Paul asked me to make shade for daughter SE.POSS and daughter neighbor's

This is not a quirk of  $\phi$ -deficient anaphors in Germanic. The same applies in Russian to the  $\phi$ -deficient anaphor *sebja* as well as the possessive *svoj* (see Klenin 1974). In (19), for instance, *Vanja*, *Anja* and *sosed* 'neighbor' are all possible antecedents of *sebja*, but again not jointly; in (20), *sebja* cannot be valued as just *Anja* (or *Saša*).<sup>16</sup>

(19) Vanja<sub>i</sub> prosil Anju<sub>j</sub> PRO<sub>j</sub> zastavit' soseda<sub>k</sub> PRO<sub>k</sub> sfotografirovat' sebja<sub>i/j/k/\*i+j</sub>.

Vanja asked Anya make.INF neighbor photograph.INF SEBJA

'Vanja asked Anya to make the neighbor photograph her/himself.'

(20) [Anja<sub>i</sub> i Saša<sub>m</sub>]<sub>k</sub> zastavili soseda<sub>j</sub> PRO<sub>j</sub> sfotografirovat' sebja<sub>\*i/\*m/j/k</sub>.

Anya and Sasha made.PL neighbor photograph.INF SEBJA

'Anya and Sasha made the neighbor photograph them/himself.'

Extending the discussion to two rather different languages, facts from Mandarin and Vietnamese are informative as well.

Mandarin has a  $\phi$ -deficient anaphor *ziji*.<sup>17</sup> Non-locally bound *ziji* neither allows split antecedents, nor partial binding, as illustrated in (21a) and (21b) respectively (see e.g. Wong 2021; Giblin 2016: 54; Y. Huang 2000: 98):

(21) a. Zhangsan<sub>i</sub> renwei Wangwu<sub>j</sub> shuo Lisi xihuan ziji<sub>i/j/\*i+j</sub>.

Zhangsan think Wangwu say Lisi like REFL-SELF

‘Zhangsan thinks that Wangwu says that Lisi likes him/himself.’

b. [Zhangsan<sub>i</sub> he Lisi<sub>j</sub>]<sub>k</sub> renwei Wangwu xihuan ziji<sub>\*i/\*j/k</sub>.

Zhangsan and Lisi think Wangwu like REFL-SELF

‘Zhangsan and Lisi think that Wangwu likes them.’

The same restriction applies to the  $\phi$ -deficient anaphor *minh* in Vietnamese, generally allowing non-local binding (Ivan and Bui 2019; Doan 2022), as in (22). *Mai* and *Nam* can separately antecede *minh*, but not jointly (Doan 2022):

(22) Mai<sub>i</sub> thấy Nam<sub>j</sub> đặt một bông hồng bên cạnh mình<sub>i/j/\*i+j</sub>.

Mai see Nam put one CL rose beside body

‘Mai saw Nam put a rose beside her/him.’

As shown in (23), partial binding is impossible as well (Ngoc Doan, Tue Trinh, p.c).

(23) [Mai<sub>i</sub> và Hùng<sub>j</sub>]<sub>k</sub> thấy Nam đặt một bông hồng bên cạnh mình<sub>\*i/\*j/k</sub>.

Mai and Hung see Nam put one CL rose beside body

‘Mai and Hung saw Nam put a rose beside them.’

While *minh* can be valued as [Mai và Hùng] ‘Mai and Hung’, valuation as just *Mai* or *Hùng* is ruled out.

As an interim summary, languages that by the null hypothesis should be able to employ the *prolog* strategy since they allow non-locally bound anaphors, don’t use it for  $\phi$ -deficient anaphors in contexts typical for the original exemption cases as in (11)-(14). And while under the *prolog* hypothesis long-distance anaphors are expected



to be exempt, allowing split antecedents and partial binding, this doesn't obtain in the languages with non-local binding discussed in (15)-(23). The pattern emerging from this overview warrants generalizing (10) to (24):

(24) When an anaphor is underspecified for  $\phi$ -features, neither split antecedents, nor partial binding are available.

Since such  $\phi$ -deficient anaphors can in fact be non-locally bound, this entails that the proposal to analyze all cases of non-local binding in terms of a two-step process involving a pronominal element *pro*log cannot be maintained in that form.

### 3 Towards an account

We now sketch how an approach to  $\phi$ -feature deficient anaphors based on chain formation by Agree may account for the pattern in (24). Reuland (2005, 2011) provides an Agree-based analysis for Dutch *zich* and SE-anaphors in other Germanic languages, which builds on Everaert (1986).<sup>18</sup> This idea is elaborated for other  $\phi$ -deficient anaphors by Giblin (2016), and Wong (2021) for Mandarin, Zubkov (2018) and Reuland and Zubkov (2022) for Russian, and Doan (2022) for Vietnamese, to which we refer for the details. Since under standard assumptions (e.g. Chomsky 1995; Pesetsky and Torrego 2007) syntactic chains are single-headed by virtue of the operation that gives rise to them, if binding of  $\phi$ -feature deficient anaphors is based on Agree, split antecedents for  $\phi$ -deficient anaphors are expected to be ruled out. Partial binding of  $\phi$ -deficient anaphors is equally incompatible with the process of chain formation. The assumption behind this line of research is that anaphor binding does not involve syntactic indices (in line with the inclusiveness condition, Chomsky 1995) and is effected by operations within the computational system of human language (Chomsky 1995). For  $\phi$ -deficient anaphors binding is effected by shared copies of features in feature chains formed by the operation of Multiple Agree (Hiraiwa 2001,

2005, Chomsky 2008). Complex anaphors allow binding to be effected in the syntax by a reflexivizing operator applying to a predicate.

In line with Bošković (2007) it is assumed that (Multiple) Agree is not restricted by phases. Instead it is restricted by minimality (Zubkov 2018; Reuland and Zubkov 2022), with finite C an intervenor for minimality, while infinitival C generally is not. Consequently, binding of  $\phi$ -deficient anaphors is not intrinsically limited to the condition A domain of the standard binding theory (Chomsky 1981, 1986), or its kin in the *prolog* approach. The C-system plays a key role as it mediates in the  $\phi$ -feature exchange between a subject DP providing feature values and an anaphor that is to be valued, unifying these occurrences (Pesetsky and Torrego 2007).<sup>19</sup>

We illustrate how this works for Mandarin *ziji*; see (25), from Reuland, Wong and Everaert (2020), based on Giblin (2016):

$$(25) \quad [ C^0_{u\phi} [ DP_{val\phi} [ T^0_{u\phi} \dots [ T^0_{u\phi} \dots zi\text{-}ji_{u\phi} \dots ] ] ] ] \rightarrow \\ [ C^0_{val\phi} [ DP_{val\phi} [ T^0_{val\phi} \dots [ T^0_{val\phi} \dots zi\text{-}ji_{val\phi} \dots ] ] ] ]$$

*Ziji* is  $\phi$ -feature-deficient. As Giblin argues, the binding relation is mediated by a functional head ( $C^0$ ) c-commanding both the antecedent and the anaphor.  $C^0$  bears an unvalued person ([+participant]) feature (represented as  $u\phi$ ), which it seeks to value. It probes for a value and finds it in the local (subject) DP, and in a nesting of embedded TPs the  $\phi$ -features on  $C^0$  are shared with all lower (anaphoric)  $T^0$  as well as with *ziji* by Multiple Agree. So, a dependency is syntactically represented by feature sharing and interpreted as binding. As to logophoricity effects, Huang and Liu (2001) discuss how notions like SOURCE, SELF, and PIVOT can be subsumed under a *de-se* requirement. This in turn can be argued to follow from the fact that the feature shared between the chain members is [+ participant], which also entails animacy/awareness.<sup>20</sup>

Doan (2022) derives binding of Vietnamese *minh* along similar lines, with a difference based on using the feature [+author] instead of [+participant]. Zubkov (2018) and Reuland and Zubkov (2022) present a Multiple Agree based analysis for Russian. Non-local binding of *sebjā* and *svoj* also shows an animacy/awareness effect on the antecedent. Russian shows no logophoricity effects (Zubkov 2018). Rather the animacy effect results from a shared Person feature. For reasons of space, we have to refer to these works for details.<sup>21</sup> Coming back to the status of the animacy/awareness effect in non-local binding discussed by Charnavel, important though it is, it is independent of logophoricity, as especially Russian and Vietnamese show.

Although for Germanic an Agree-based analysis has not been developed in the detail available for Mandarin, Vietnamese and Russian, the Multiple Agree can in principle be extended to Germanic as well. One may assume a structure along the lines of (25) in finite clauses, with a C probing for a person feature (as in Russian, for more on subjunctives see below). If so, SE (SELF)-anaphors will be visible to the C-probe, share the value the probe receives from the subject end up bound by the (local) subject. They will be visible to probing and be bound even when in positions in which their  $\phi$ -specified French and English counterparts are exempt.

For sake of concreteness, consider the counterpart of Dutch (9b) with *hem* replaced by *zich* with structure added as in (26), and a derivation modeled on (25):

- (26)  $[C^0_{u\phi} [Jan_{val\phi} \text{ en } Marie_m] \text{ hopen } [C^0_{u\phi} \text{ dat } [Suzy_{val\phi} [die \text{ foto van } zich_{u\phi} \text{ zelf}]] \text{ zal verscheuren}]] \rightarrow$
- $[C^0_{u\phi} [Jan_{val\phi} \text{ en } Marie_m] \text{ hopen } [C^0_{val\phi} \text{ dat } [Suzy_{val\phi} [die \text{ foto van } zich_{val\phi} \text{ zelf}]] \text{ zal verscheuren}]]$
- John<sub>i</sub> and Mary<sub>m</sub> hope that Suzy<sub>k</sub> will tear up that picture of SE SELF<sub>k/\*i/\*m</sub>.

Here only local binding obtains, since due to minimality only the local C valued by *Suzy* is able to value *zich*.<sup>22</sup>

Given the key role of the logophoric operator in Charnavel’s approach we also sketch the representation of logophoric dependencies in the Agree-based alternative. The fact that *sig* in subjunctive contexts in Icelandic, as in (16b), doesn’t allow split antecedents indicates that here too the dependency with its antecedent is based on syntactic chain formation. This is supported by the pattern in (27) from Thráinsson (1990: 299).

(27)  $Jón_i$  segir [að  $María_j$  viti [að  $Haraldur_k$  vill [að  $Billi$  heimsæki  $sig_{*i/*j/k}$ ]]].

John says that Mary know.SUBJ that Harold want.IND that Bill visit.SUBJ SE  
As Thráinsson notes, despite being a potential perspective holder *Jón* is not available as an antecedent of *sig*. Only the more local *Haraldur* is. This effect is unexpected under a local logophoric operator as in (1b), but quite compatible with an Agree-based approach. Specifically, one may assume a logophoric head  $L^0$  as a carrier of logophoricity in the left periphery of a clause with a subjunctive complement,  $CP_1$  and  $CP_2$  in (28):<sup>23</sup>

(28) [ $CP_1 L^0_1$  [ $Jón_i$  segir [að  $María_j$  viti [ $CP_2 L^0_2$  [að  $Haraldur_k$  vill [að  $Billi$  heimsæki  $sig_{*i/*j/k}$ ]]]]]]].

$L^0$  looks for a potential perspective holder, formally implemented as the valuation of an [+author] feature. Both *Jón* and *Haraldur* can be taken to bear a valued [+author] feature as subjects of a propositional attitude verb, but the presence of  $L^0_2$  prevents  $L^0_1$  from probing and valuing *sig* due to minimality. The position of such an  $L^0$  also allows it to be valued by *Jón* in a structure like [ $L^0$  [*Skodun Jóns<sub>i</sub>*] er [að *sig<sub>i,acc</sub>* *vanti<sub>sub</sub> hæfileika*]] ‘John’s opinion is that SIG lacks talents’, accounting for binding despite lack of c-command (see Giblin 2016 for this configuration in Mandarin). For

more discussion, see the Appendix. Returning to the original discussion of the difference in distribution between exempt and non-exempt anaphors, Agree-based approaches appear to make the right cut, predicting the pattern in section 2.2.<sup>24</sup>

#### 4 Conclusion and issues for further research

This contribution explored the “null hypothesis” in Charnavel (2019: 321) that “purported long-distance anaphors should be reduced to exempt anaphors”. We showed that  $\phi$ -deficient anaphors in different language families allow non-local binding, without allowing split antecedents and partial binding. Thus, the hypothesis cannot be maintained as given. We sketched an Agree-based approach that provides a rather straightforward account for the properties of  $\phi$ -deficient anaphors. Note, though, that certain insights of the *prolog* approach may yet be applicable to  $\phi$ -specified anaphors. It is, then, an interesting issue for further research how insights of the *prolog* approach can be reconciled with the results obtained in this contribution.

#### 5 References

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### *Notes*

\* We would like to thank the anonymous reviewers, especially one of them, for their helpful and sometimes challenging comments, which helped us improve this contribution.

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<sup>1</sup> According to condition A of the canonical binding theory an anaphor must be bound in its governing category, see Chomsky (1981, 1986), redefined as the 'spell-out domain' in Charnavel and Sportiche (2016) and subsequent work.

<sup>2</sup> Structures like (1b) have been proposed for Japanese (Nishigauchi 2014) and Tamil (Sundaresan 2012, 2018), without extending them to all non-local binding.

<sup>3</sup> See also Pollard and Xue (1998), Buring (2005) and Giblin (2016).

<sup>4</sup> The facts in section 2 indicate that the notion 'anaphor' cannot be a primitive.

<sup>5</sup> We take it to be uncontroversial that elements like Romance reflexive clitics, and simplex reflexives in Germanic are underspecified for  $\phi$ -features (see e.g. Burzio 1991, Fanselow 1990, 1991, but also Charnavel 2019: 340).

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<sup>6</sup> These are uncontroversial constructed examples, as such compatible with the *prolog* approach. See e.g. Anagnostopoulou and Everaert (1999), Everaert (2003), Vanden Wyngaerd (1994), Rooryck and Vanden Wyngaerd (2011) for further discussion.

<sup>7</sup> Many Germanic facts are from the existing literature and from Reuland and Everaert (2023). To fill the gaps we approached colleagues/native speakers.

<sup>8</sup> For similar judgements on German, see a.o. Fischer (2015:336); Kiss (2012:156) notes that German and English differ on this point

<sup>9</sup> We use the term SE-anaphor here in the sense of Reinhart and Reuland (1993), as  $\phi$ -feature bundles/subtrees with at least one feature unvalued, close to  $\phi$ -reflexives in the sense of Déchaine and Wiltschko (2017).

<sup>10</sup> See Klingvall (2018) on Swedish, and Vikner (1985:30) on Danish.

<sup>11</sup> Charnavel (2019: 5.6) discusses (12b) and (13), referring to Lødrup (2009), but offers no solution for Lødrup's observation.

<sup>12</sup> As noted by a reviewer, lack of exemption has also been argued to hold for a few (complex) phi-specified anaphors such as Greek *o eafitos tu* (Anagnostopoulou and Everaert 1999), and Hebrew *acm* (Bassel 2018), in the sense that they are mostly local.

<sup>13</sup> For (15) we are indebted to Helge Lødrup (p.c.) and for (16a) to Höskuldur Thráinsson (p.c.); (16b) is from Everaert (1986:253).

<sup>14</sup> An anonymous reviewer suggests that the subject orientation of *seg* and *sig* could independently rule out a split antecedent interpretation in (15) and (16a). However, the lower envisaged binder is the non-local PRO subject, though controlled by *Alex*.

<sup>15</sup> Thanks to Helge Lødrup (p.c.) for this example. In Faroese split antecedents and partial binding are equally impossible (Hjalmar Petersen, p.c.). An anonymous reviewer suggest that the examples (16-18) “given as showing that e.g. split antecedents are not allowed are insufficiently controlled. It must be shown that the

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clauses containing the anaphors can be seen from the joint perspective of the antecedents, else the conditions for logophoric binding are not met." Note, though, that in (16) (as in (15)) the non-local subjects are each individually available as antecedents of the anaphor, only their join is not. The *prolog* approach hypothesizes that non-locality is mediated by *prolog*. Hence, either the pattern goes against this hypothesis, or split antecedents don't provide a test for the presence of *prolog*. Both options go against the null-hypothesis from Charnavel (2019: 321). (17) and (18) are direct counterparts of (7) which exemplifies logophoricity in Charnavel (2020).

<sup>16</sup> Thanks to Peter Zubkov (p.c.).

<sup>17</sup> *Zi-ji* is a complex anaphor, see Reuland, Wong and Everaert (2020).

<sup>18</sup> See also Kratzer (2009) for another type of agree-based approach.

<sup>19</sup> This is in line with the conception of the C-system as a pivot in the relation between the syntactic system and the discourse system (e.g. Delfitto and Fiorin 2011, Sigurðsson (2004, 2011), Giblin 2016). This allows configurations where the antecedent does not c-command the anaphor provided both are in the domain of a functional element mediating the feature sharing (Reuland 2005, Chomsky 2008).

<sup>20</sup> See Huang and Liu 2001 on the relation between 'awareness' and PIVOT.

<sup>21</sup> See Reuland (2020) for a demonstration that Preminger (2019)'s criticism of Agree-based analyses does not apply to the approaches discussed here.

<sup>22</sup> In (9a) with *zich* replacing *hen*, there is no local antecedent, but the matrix C+subject is unavailable due to minimality; hence no binding obtains.

<sup>23</sup> In response to an anonymous reviewer,  $L^0$  differs from *prolog* in terms of its position (in the left periphery), and in being a probe instead of a pronoun.

<sup>24</sup> While the absence of split antecedents for Mandarin non-locally bound *ziji* in (21a) is robust, Xue, Pollard and Sag (1994) report that (i) allows *ziji* to be valued as the

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"aggregate entity" consisting of *Zhangsan* and *Lisi* as a discourse (split) antecedent inferred from the context (see Charnavel 2019):

- (i) Zhangsan<sub>i</sub> de qian he Lisi<sub>j</sub> de shu dou bei ziji<sub>i&j</sub> de pengyou touzole.

Zhangsan DE money and Lisi DE book both BEI self DE friend steal-ASP

“Zhangsan’s money and Lisi’s book were both stolen by their friend(s).”

As they argue, neither *Zhangsan*, nor *Lisi* is in a position to bind *ziji*, hence it is exempt in their sense. However, Sally Wong and other native speakers consulted report that the 'aggregate' reading in (i) is impossible. For some a possible interpretation would be “Zhangsan’s money was stolen by his own friend and Lisi’s book was stolen by his own friend.” But that is not a split antecedent interpretation but a case of a disjunctive sub-command binding, in part triggered by the presence of *dou* (both). It seems significant that (i) is a coordination. A conceivable alternative construal – not given by our informants - would be "Zhangsan and Lisi's money and book (respectively) were stolen by ziji's friends". Here *Zhangsan and Lisi* would not represent a split antecedent either.