

Licensing and anaphora in Tenyidie

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April 12, 2020

Abstract

Tenyidie shows a typologically unusual pattern of φ -covarying agreement with anaphors, but not other arguments. We argue that this apparent agreement actually reveals the nature of anaphoric binding in the language, which involves an Agree relation between the anaphor and its antecedent mediated by a licensing head. The features on this mediating head are realized overtly in Tenyidie. This is not genuine φ -agreement, but rather a morphological reflex of the binding relation itself. We provide supporting evidence from a range of constructions and also show how this analysis accounts for restrictions on anaphora in double object constructions. Tenyidie therefore suggests that there is a close link between binding and Agree.

1 Introduction

The precise nature of the relation between an anaphor and its antecedent has been a long-standing topic of interest in syntactic theory (e.g. Lees & Klima 1963; Chomsky 1965, 1973, 1981; Langacker 1969; Helke 1971; Jackendoff 1972; Wasow 1972; Reinhart 1976). The classic approach by Chomsky (1981) holds that this is the result of Condition A of Binding Theory (1).

(1) *Condition A:*

An anaphor must be bound in its local domain.

Condition A captures some of the basic distributional properties of anaphors in languages such as English. They require a c-commanding antecedent (2), it must be the most local antecedent (3) and this antecedent must also match the φ -features of the anaphor (4).

(2) *Anaphor must be bound by a c-commanding antecedent:*

[_{DP} Bill's_i father]_j looks after himself_{*i/j}

(3) *Anaphor must be bound by most local antecedent:*

a. Martha_i saw Susan's_j picture of herself_{*i/j}

b. John_i wants Bill_j to hit himself_{*i/j}

(4) *Anaphor must match in φ -features with its antecedent:*

a. *John_i saw herself_i

b. *Sarah_i washed themselves_i

Given these properties, a growing body of literature has argued that anaphoric binding (i.e. Condition A) can be reduced to Agree (e.g. Reuland 2001, 2005, 2011; Heinat 2006, 2009; Hicks 2008, 2009; Quicoli 2008; Bader 2011; Rooryck & Vanden Wyngaerd 2011; Tucker 2012; Sundaresan 2012; Antonenko 2012, 2018; Murugesan 2019). In other words, the restrictions in (2)–(4) can be made to follow from the core properties of Agree. If we assume that an anaphor enters the derivation with unvalued φ -features ($[\varphi:\square]$), then these features must be valued under Agree with some higher, c-commanding antecedent (5).¹

$$(5) \quad \text{antecedent}_{[\varphi:3\text{SG.F}]} \dots [\dots \text{anaphor}_{[\varphi:\square]} \dots]$$

$\swarrow \quad \quad \quad \nearrow$
 ----- Agree -----

General properties of Minimality also dictate that a closer potential binder cannot be skipped (3). The φ -feature matching requirement also follows naturally from feature valuation under Agree, leading to the anaphor in (5) being morphologically realized as *herself*. For this reason, this general approach to anaphoric binding has both empirical and conceptual appeal.

In this paper, we provide novel data in support of this view of anaphoric binding. We show that in Tenyidie, a Tibeto-Burman language spoken in India, anaphors obligatorily trigger what looks like φ -covarying object agreement. This would seem to contradict a well-known generalization, the *Anaphor Agreement Effect* (Rizzi 1990; Woolford 1999; Tucker 2012; Sundaresan 2016; Murugesan 2019), that states that anaphors cannot act as agreement controllers. However, we argue that the Tenyidie data need not pose a problem for the AAE, since we are not dealing with genuine φ -agreement. Instead, putative agreement with anaphors in Tenyidie actually reveals the nature of anaphoric binding, namely that it is mediated by a functional head. The φ -morphology we see on these heads is actually a direct reflex of the binding relation. What is more, we will see that there is a close link between licensing and anaphora in Tenyidie, that is, φ -covarying agreement with an anaphor surfaces on the head that licenses that anaphor. It will be shown that this is true for a variety of functional heads. Furthermore, the link between licensing and binding can shed light on some puzzling restrictions in ditransitives. Ultimately, we argue that this provides a strong argument for an Agree-based approach to anaphoric binding (*contra* Preminger 2019).

The paper is structured as follows: Section 2 provides the basic data involving anaphora and agreement in Tenyidie, also clarifying the status of the object marker as inflection, and not a doubled pronoun. Section 3 provides evidence for the link between licensing and anaphora from a range of different constructions. Section 4 presents data from ditransitives, showing how otherwise puzzling restrictions make sense in light of the present analysis. Section 5 discusses a further pattern with psych verbs and section 6 concludes.

¹The approach typically leaves open the question how transfer of φ -features leads to semantic co-indexation (i.e. identity of reference). One option that has been pursued is that, alongside φ -features, Agree involves valuation of an [INDEX] feature (or something similar) on the anaphor (see e.g. Rezac 2006:296; 2011:254; Hicks 2009:116f.; Loss 2014). For present purposes, we assume a version of this assumption to implicit in what follows.

2 Anaphora in Tenyidie

Tenyidie is a Sino-Tibetan (Tibeto-Burman) language spoken by approximately 153,000 people in Nagaland, North-Eastern India (Ethnologue).² It is also sometimes referred to as *Angami* (Giridhar 1980), however this is a cover term for many dialects which include Tenyidie. To date, there has been relatively little grammatical description of the language, especially regarding its syntax (but see Giridhar 1980; Kuolie 2006; Kevichüsa 2007).

Tenyidie is an isolating head-final language with SOV basic word order. It is also inflectionally-poor, generally lacking either subject or object agreement. TAM marking is signalled on a particle following the verb. These properties are illustrated by the examples in (6) and (7). For example, (6) shows progressive aspect marked by the particle *bǎ* and the absence of any kind of argument cross-referencing morphology on the verb, either for subject or object.

- | | | | | |
|-----|----|--|----|---|
| (6) | a. | á Kēví (* ā -)tshē bǎ
1SG Kevī (*1SG-)praise PROG
'I am praising Kevī.' | b. | á Kēví (* puō -)tshē bǎ
1SG Kevī (*3SG-)praise PROG
'I am praising Kevī.' |
| (7) | a. | Nó lēfódà (* n̄ -)phrē tiō
2SG book (*2SG-)read FUT
'You will read the book.' | b. | Nó lēfódà (* puō -)phrē tiō
2SG book (*3SG-)read FUT
'You will read the book.' |

Despite the general lack of argument-tracking morphology in the language, there is one particular context in which we do find what looks like object agreement. In local reflexivization contexts with a direct object anaphor, we find a φ -covarying morpheme on the verb. This is illustrated for various φ -feature combinations in (8) and is perfectly regular across the entire pronominal paradigm. In each of these cases, we see that an overt object anaphor, such as *ā-thuó* ('myself') in (8a) requires the obligatory presence of what we will refer to as the 'object marker' (OM) on the verb. It is important to mention that the object marker has the same form as the object pronoun, e.g. *ā* in (8a), something which we return to shortly.

- (8) *Reflexive marking is φ -covarying:*
- | | | | | |
|----|--|-----------------------|------------------------|------|
| a. | á _i | ā-thuó _i | *(ā -)tshē | bǎ |
| | 1SG.SBJ | 1SG-SELF | *(1SG-)praise | PROG |
| | 'I am praising myself.' | | | |
| b. | puō _i | puō-thuó _i | *(puō -)tshē | bǎ |
| | 3SG | 3SG-SELF | *(3SG-)praise | PROG |
| | 'He is praising himself.' | | | |
| c. | nó _i | n̄-thuó _i | *(n̄ -)tshē | bǎ |
| | 2SG.SBJ | 2SG-SELF | *(2SG.OBJ-)praise | PROG |
| | 'You are praising yourself.' | | | |
| d. | hiékō | hiékō-thuó | *(hiékō -)tshē | bǎ |
| | 1PL.EXCL | 1PL.EXCL-SELF | *(1PL.EXCL-)praise | PROG |
| | 'We (but not you) are praising ourselves.' | | | |

²The data in this paper come from the second author of the paper, who is a native speaker of Tenyidie.

- e. ūkō_i ūkō-thuó_i *(**ūkō**-)tshē bá
 3PL 3PL-SELF *(3PL-)praise PROG
 ‘They are praising themselves.’

There are various possible analyses for the object marker. The following section will establish that it is not a doubled pronoun, but an inflectional morpheme realizing ϕ -features.

2.1 Complex constituent?

The first possible analysis of the object marker that we will consider is treating it as part of a complex constituent with the anaphoric object. This analysis is sketched abstractly in (9), where the OM forms part of the direct object of the verb.

- (9) DP_i [VP [DP self_i OM] V]

The first piece of evidence suggesting that the OM does not form a constituent with the object anaphor comes from the fact that the object anaphor can be dropped to the exclusion of the OM (10). For example, it is possible to omit the reflexive object in some contexts, including first and second person (10a,b). The object marker, on the other hand, cannot be dropped. The omission of the anaphoric object with third person singular is not possible (10c), since it gives rise to an ambiguity between a reflexive (‘he saw himself’) and disjoint context (‘he_i saw him_j’) due to the OM having the same form as the 3sg object pronoun.

- (10) *Object anaphor can be dropped:*

- a. á_i (ā-thuó_i) ā-tshē bá
 1SG.SBJ (1SG-SELF) 1SG.OBJ-praise PROG
 ‘I am praising myself.’
 b. nó_i (ñ-thuó_i) ñ-tshē bá
 2SG.SBJ (2SG-SELF) 2SG.OBJ-praise PROG
 ‘You are praising yourself.’
 c. puō_i *(puō-thuó_i) **puō**-tshē bá
 3SG *(3SG-SELF) 3SG-praise PROG
 ‘He is praising himself.’

Another argument against the complex constituent approach is that adverbs can intervene between the OM and the reflexive object, suggesting that they do not form a constituent (11). While an adverb such as *lēfəkí nū* (‘at school’) can be placed between the object anaphor and the OM (11a), it cannot separate the OM and the verb (11b).

- (11) *Adverbs can intervene between anaphor and object marker:*

- a. á_i ā-thuó_i [PP lēfəkí nū] ā-tshē bá
 1SG 1SG-SELF school LOC 1SG-praise PROG
 ‘I am praising myself at school.’
 b. *á_i ā-thuó_i ā [PP lēfəkí nū] tshē bá
 1SG 1SG-SELF 1SG school LOC praise PROG
 ‘I am praising myself at school.’

- c. Nó ñ-thuó [pp khrəvā nū] ñ-ŋū tiō
 2SG 2SG-SELF mirror LOC 2SG-see FUT
 ‘You will see yourself in the mirror.’
- d. *Nó ñ-thuó ñ [pp khrəvā nū] ŋū tiō
 2SG 2SG-SELF 2SG mirror LOC see FUT
 ‘You will see yourself in the mirror.’

This strongly suggests that the object anaphor and the OM do not form a constituent. The impossible adjunction site between the verb and the OM, on the other hand, leads to the conclusion that the verb and the OM form a compact unit. This is further supported by the the position of (optional) intonation breaks. As (12) shows, an intonation break can be inserted between the object anaphor and the OM, but not between the OM and the verb (12). If we treat intonation breaks as ‘restructuring’, i.e. formation of multiple intonation phrases (see e.g. Nespor & Vogel 1986:193ff.), then an intonation phrase boundary cannot split strings that belong to a prosodic word or phrase (Selkirk 2011).

- (12) *No intonation break between OM and verb:*

á_i (||) ā-thuó_i (||) ā (*||) tshē (||) bá
 1SG 1SG-SELF 1SG praise PROG
 ‘I am praising myself.’

The final piece of evidence against the complex constituent approach comes from right dislocation. It is possible to displace the object anaphor to the right to the exclusion of the OM (13a).³ Displacement of both the object anaphor and the OM is ungrammatical (13b), again suggesting that they do not form a syntactic constituent.

- (13) *Right dislocation of anaphor:*

- a. á —₁ ā-tshē bá ā-thuó₁
 1SG 1SG-praise PROG 1SG-SELF
- b. *á —₁ tshē bá ā-thuó ā₁
 1SG praise PROG 1SG-SELF 1SG
 ‘I am praising myself.’

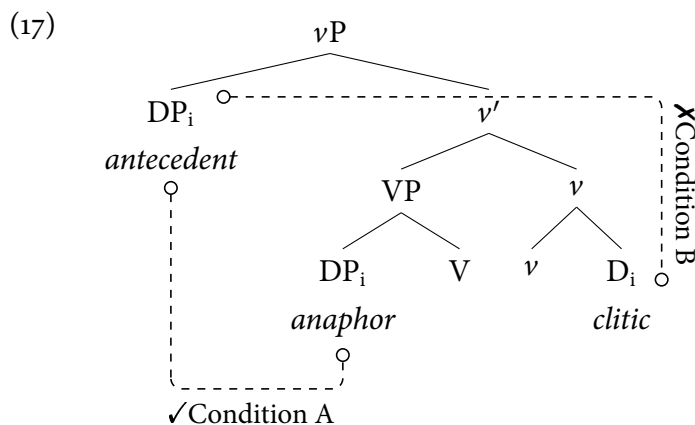
Since we have already seen that the anaphoric object can be optionally dropped in 1st singular contexts (10), one might wonder whether (13a) actually involves a bi-clausal structure with object drop in the first clause, with the dislocated element actually being a reduced clause of some kind (e.g. Ott & de Vries 2016). An argument against this view comes from the fact that right dislocation is clause-bound in Tenyidie (14), which is typically not the case for putative bi-clausal instances of right dislocation, as shown by De Cat (2007:516) for French and Ott & de Vries (2016:670) for Dutch.

³Note that leftward displacement of an anaphor is ruled out by a general constraint against backward anaphora in the language (see section 4.4 for further discussion).

(16) *Object marker not possible with anaphor in Amharic* (Baker 2012:257f.):

- a. Ləmma wiʃʃa-w-in j-aj(-əw)-al
 Lemma dog-DEF.M-ACC 3MSG.S-see.IPV(-3MSG.O)-AUX.3MSG.S
 ‘Lemma sees the dog.’
- b. Ləmma ras-u-n gəddəl-ə(*-w)
 Lemma REFL-his-ACC kill.PFV-3MSG.S(*-3MSG.O)
 ‘Lemma killed himself.’

Baker & Kramer (2018:1037) analyze this as the result of a Condition B violation induced by the clitic. In many clitic doubling analyses, the clitic is a referentially-dependent D-element attached to the verb, by head movement or m-Merger, for example (e.g. Anagnostopoulou 2003; Nevins 2011; Harizanov 2014). As Baker & Kramer (2018) point out, this analysis predicts that the clitic should induce Condition B violation if the c-commanding subject is co-referent with it, while this is not the case in (16a), it is the case in (16b). In a local reflexivization configuration, Condition A forces the subject to be co-referent with the object. However, since the doubled clitic must also be co-referent with the object, the c-commanding subject will lead to an unavoidable violation of Condition B (17). Thus, clitic doubling must be avoided in cases such as (16b).



Since the object marker in Amharic is a genuine clitic, it shows sensitivity to Condition B when the object is an anaphor. Baker & Kramer (2018) also point out that there are languages in which the object marker does not trigger Condition B violations. One such language is Burushaski, where an object marker can co-occur with an anaphoric object (18b), suggesting that it is genuine object agreement rather than clitic doubling.

(18) *Object agreement with anaphor in Burushaski* (Willson 1996:3,18):

- a. Hilés-e dasín **mu**-yeéts-imi
 boy-ERG girl.ABS 3FSG.OBJ-see-3MSG.SBJ.PST
 ‘The boy saw the girl’
- b. Khín dasin-e mu-khár **e**-sqan-umo
 DEM.F.PROX girl-ERG 3FSG-SELF.Y.ABS 3Y.OBJ-kill-3FSG.SBJ.PST
 ‘This girl killed herself.’

Thus, whether or not an object marker is found with local reflexivization can be taken as a diagnostic for its status as a referentially-dependent clitic or an inflectional affix. Since the object marker in

Tenyidie is restricted to contexts with anaphoric objects, we would conclude that it is an inflectional affix rather than a doubled clitic.

There is another argument that points towards the same conclusion that the Tenyidie OM is not a doubled clitic. For example, many languages with clitic doubling allow for doubling of the direct object of a ditransitive. Macedonian, for example, is such a language (19) (also see Anagnostopoulou 2001 on Greek and Kallulli 2001 on Albanian).

(19) *Clitic doubling of direct object in Macedonian* (Mišeka Tomić 2008:74):

Jan **go** dade pismo-to na edno dete
 Jan CL.3SG.N.ACC gave.3SG letter-the.N.SG to a.N.SG child
 ‘Jan gave the letter to a child.’

With genuine object agreement, however, we expect to find Minimality effects in ditransitives, such that the direct object cannot be a possible agreement goal.⁴ As (20) shows, the OM in Tenyidie differs from canonical clitic doubling such as (19) in not being able to target the direct object of a ditransitive.

(20) *Direct object of a ditransitive cannot be an anaphor:*

- a. á_i lèṭṭēr ū ā-thuó_i ā-pēkiē ʃó
 1SG letter DEF 1SG-SELF 1SG-show PERF
 ‘I showed the letter to myself.’
- b. *á_i ā-thuó_i Kēví (ā-)pēkiē ʃó
 1SG 1SG-SELF Kevi 1SG-show PERF
 ‘I showed myself to Kevi.’

While we will return to anaphora in ditransitives in far more detail in section 4, this further asymmetry further supports the idea that this is not some kind of clitic doubling.

2.3 Interim summary

So far, we have seen that the object marker in Tenyidie does not form a constituent with the object anaphor. Furthermore, the available evidence suggests that it is an inflectional affix, rather than a doubled pronoun. So, is this then a case of object agreement? If it were, this would be a typologically unusual situation given the *Anaphor Agreement Effect* (Rizzi 1990). However, treating the OM as object agreement does not fully account for why this agreement is only possible with anaphors, and not other DP objects too. In the remainder of this paper, we will take a different view. We argue that Tenyidie does not have agreement of any kind, and the OM we find with local anaphora is actually a reflex of the way reflexivization takes place.

⁴That said, this diagnostic is not entirely conclusive. For example, Baker & Kramer (2018) show that there is a Minimality effect with clitic doubling in Amharic, which they interpret as showing that Agree is involved as part of the process (also see Harizanov 2014).

3 Licensing and anaphora


In this section, we will argue that, in the cases we have seen so far, the object marker in Tenyidie is the realization of φ -features on the verb. However, these features are not the result of genuine object agreement, but are instead a by-product of the syntactic mechanism for anaphoric binding. In particular, we argue that the transmission of φ -features to the anaphor required for binding is mediated by an intermediate head, which allows for the features to be overtly realized there in Tenyidie. This head is always the licensing head, in this case ν . In what follows, we lay out the main assumptions for our analysis and show how it extends to a number of other licensing environments.

3.1 Mediated Agree

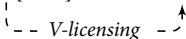
The first key assumption, given in (21), is that reflexive anaphors are born featurally-deficient (21) (e.g. Reuland 2005; Heinat 2006; Kratzer 2009; Rooryck & Vanden Wyngaerd 2011; also see Grano & Lasnik 2018 on pronouns).

- (21) *Featural deficiency of anaphors:*
Anaphors enter the derivation with unvalued φ -features.

In other words, they differ from non-anaphoric DPs in entering the derivation with unvalued φ -features, which we will notate as $[\varphi:\square]$ following Heck & Richards (2010). This means that an anaphor must receive φ -features under Agree with a higher antecedent (22), which we take to be the essence of the anaphoric binding relation.

- (22) $[_{VP} \text{ antecedent}_{[\varphi:F]} [_{\nu'} \nu [_{VP} V \text{ anaphor}_{[\varphi:\square]}]]]$
- 

Furthermore, we follow previous literature in assuming that, even in morphologically case-poor languages, all nominals must be licensed by a functional head (e.g. Sheehan & van der Wal 2018). We adopt the classic assumption that this involves abstract Case features on nominals that must be checked by a functional head (Vergnaud 1977/2008; Chomsky 1980, 1981; Lasnik 1992). Following Pesetsky (2013:73), we will refer to this as *Vergnaud licensing* (*V-licensing*). As shown in (23), it involves an uninterpretable Case feature on a nominal being checked by a corresponding feature on a c-commanding functional head, ν in this case.

- (23) $[_{VP} \nu_{[CASE]} [_{VP} V DP_{[uCASE]}]]$
- 

These two assumptions will both play an important role in the theory of anaphoric binding developed here. Following other syntactic approaches to binding (Heinat 2006, 2009; Kratzer 2009), we assume that the transfer of φ -features to an anaphor from its antecedent is not direct, but instead mediated by a functional head. This is also the head that is responsible for licensing the anaphor. To account for this link, we propose the *feature-sharing condition* in (24).

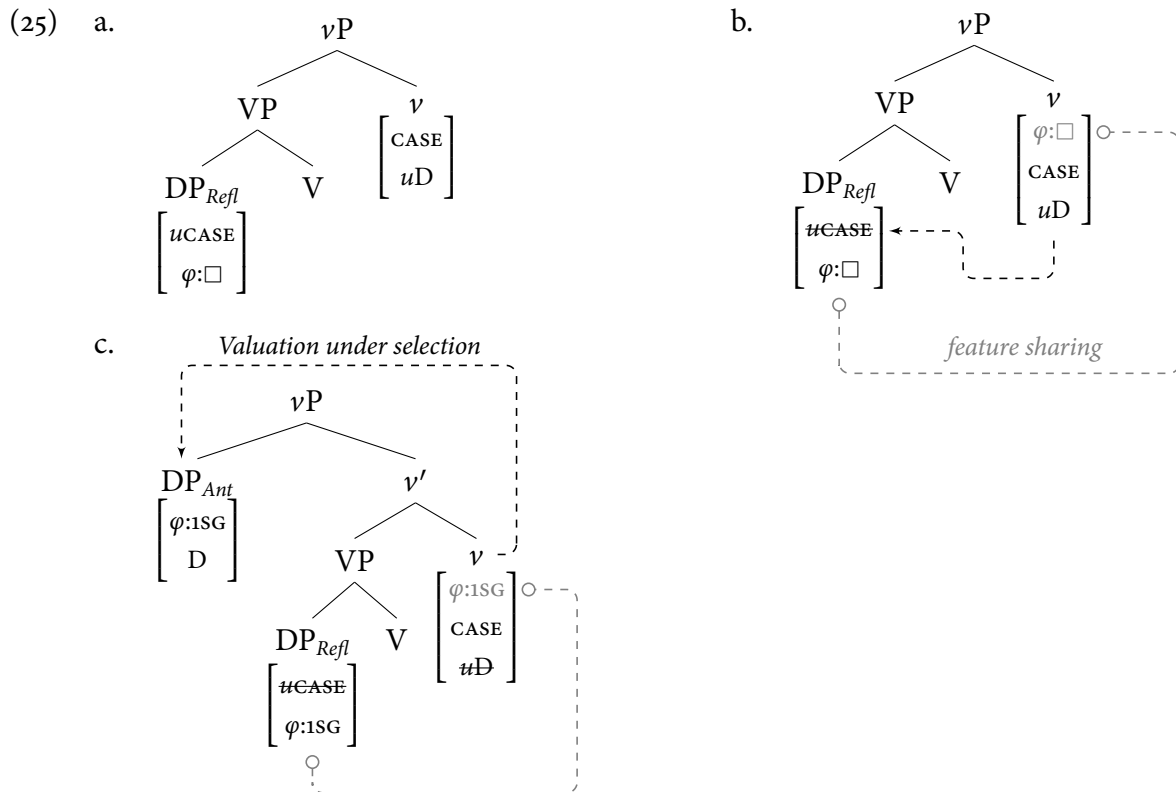
(24) *Feature-sharing condition:*

If a head H V-licenses a goal G with an unvalued feature F , then F is copied and shared on H .

$$[{}_{HP} H_{[CASE]}] \dots [G_{[{}_{uCASE}, F:\square]}] \dots \Rightarrow [{}_{HP} H_{[CASE, F_i:\square]}] \dots [G_{[{}_{uCASE}, F_i:\square]}] \dots$$

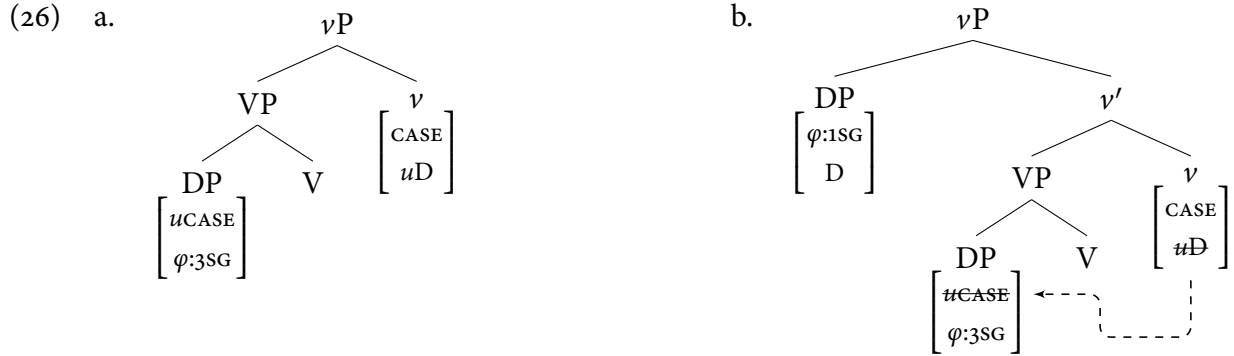
The result of this is that any unvalued feature on a nominal is copied onto the licensing head that licenses it and its value is shared between the heads (as indicated by the subscript index i). Sharing can be conceived of as multidominance (Frampton & Gutmann 2000, 2006; Pesetsky & Torrego 2001, 2007) or copying with co-indexation. The important point is that valuation of one feature in a sharing relation implies valuation of all other features in that relation. The dependency between a licensing head and an anaphor with an unvalued φ -feature will facilitate the transfer of the φ -features to the anaphor if that head introduces the antecedent bearing those features.

To see this, consider the derivational steps in (25). First, the anaphoric object enters the derivation with an unvalued φ -feature and an unchecked Case feature (25a). The ν head is merged with a Case probe and a selection feature $[{}_{uD}]$ for the subject, but no inherent φ -feature. When ν V-licenses the anaphoric object by checking its ${}_{uCASE}$ feature, the feature-sharing condition in (24) is met. This triggers sharing of the object's φ -features on ν and, as a result, there is now an unvalued φ -feature on the ν head (25b). When the antecedent is merged, checking the ${}_{uD}$ on ν , the φ -feature on ν can be valued by the DP in Spec- ν P (cf. *Reverse Agree*; Pesetsky & Torrego 2007; Zeijlstra 2012). This can also be viewed as an instance of Spec-Head Agreement (Koopman 2006). Due to the feature-sharing dependency between ν and the object, the φ -features of the external argument are transferred to both ν and the object (25c).



An important aspect of this particular view of anaphora is that ν only bears φ -features when it is V-licenses an anaphor. If the object DP is non-anaphoric, then the condition for feature-sharing in

(24) will not be met, since the licensee will not bear an unvalued feature. As (26a) shows, a non-anaphoric object enters the derivation with valued φ -features (26a). Thus, when v licenses the object in (26b), there is no unvalued feature on that DP that could be shared on the licensing v head.



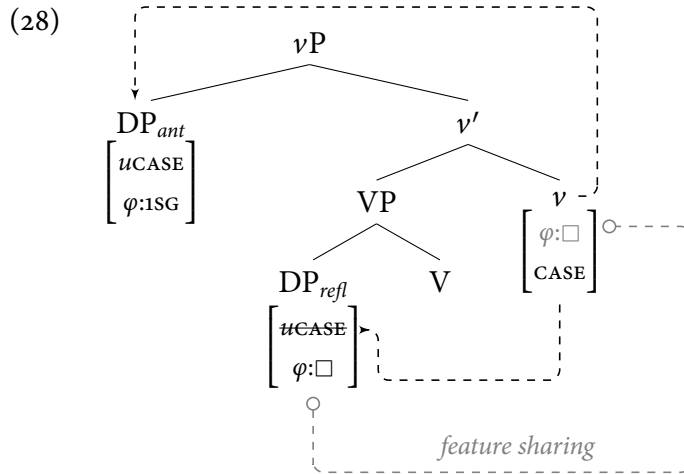
The analysis of simple cases of anaphoric binding here is similar in some ways to the analyses proposed by Heinat (2006, 2009). In Heinat's approach, φ -features are also passed from an external argument binder to an anaphoric object via v . However, an important and, for present purposes, crucial distinction between ours and Heinat's approach is that he assumes that φ -features are always present on v , even when it licenses a non-anaphoric object. In the analysis outlined above, the feature-sharing condition ensures that a φ -feature is only present on a head if it V-licenses a goal with an unvalued feature, i.e. an anaphor. Assuming that some languages may realize the features on v overtly, Heinat predicts that such languages which show object agreement should do so regardless of the type of goal. Our approach, on the other hand, predicts that v shows φ -covarying agreement only with goals that are born with unvalued φ -features, i.e. anaphors. The latter view seems to be the more appropriate one for Tenyidie, which generally lacks object agreement, except when the object is an anaphor. However, we still have the question of why is this particular exponent realized on v . The following section addresses this question and provides some further details of the analysis.

3.2 Anaphoric objects

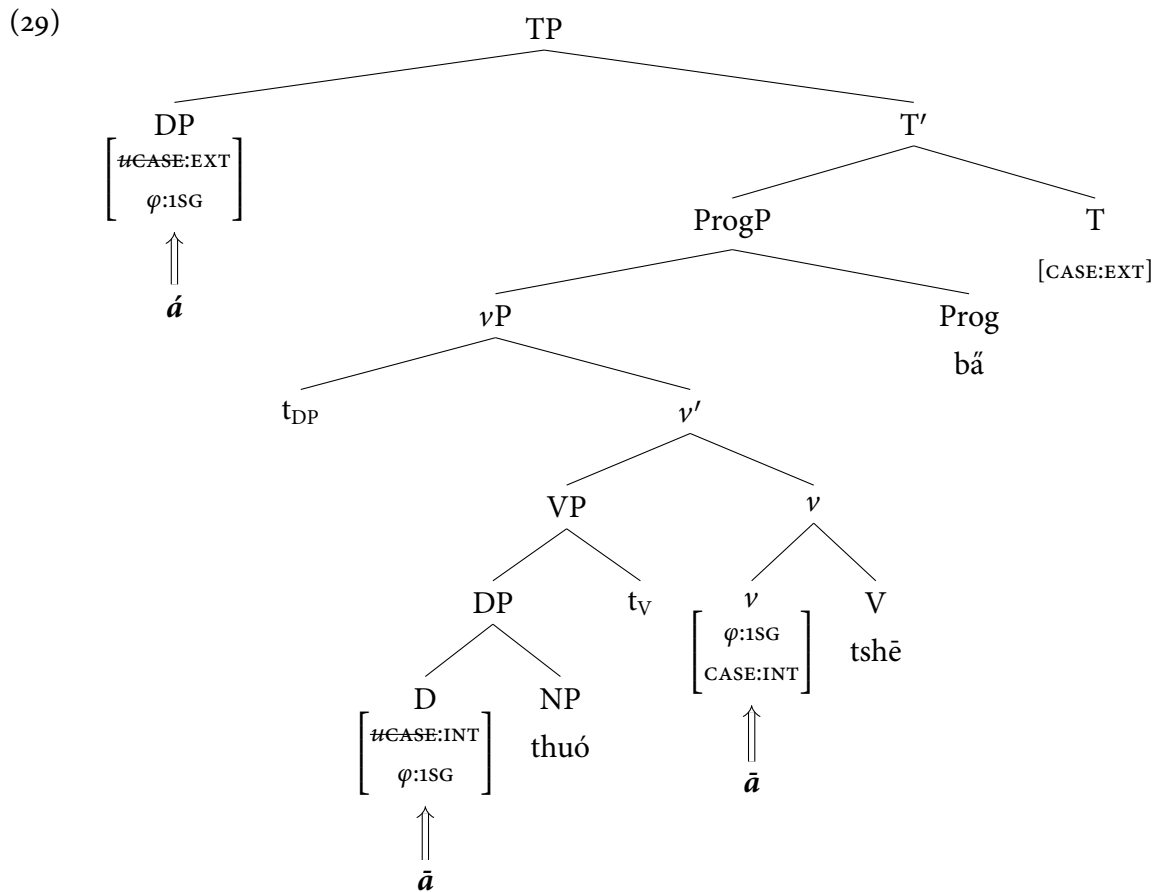
To see how the mechanism of anaphoric binding outlined above derives the Tenyidie data, let us consider the derivation of examples such as (8a), repeated below as (27).

- (27) á_i ā-thuó_i *(ā-)tshē bǎ
 1SG 1SG-SELF *(1SG-)praise PROG
 'I am praising myself.'

Given the assumptions of the previous section, v will V-license the direct object and, since it bears unvalued φ -features, a shared instance of that φ -feature will be copied onto v . When the external argument is merged, its φ -features are transferred to v and the direct object (28).



After these Agree operations have taken place, further projections such as TP and ProgP will be merged and there will be various movement operations, e.g. movement of the verb to ν and the subject to Spec-TP. In addition, the external argument is V-licensed by T. This results in the structure in (29).



Adopting a realizational approach to morphology such as Distributed Morphology (Halle & Marantz 1993), these features will be spelled-out by appropriate exponents. While all phonological material will undergo Late Insertion, we will focus on the Vocabulary Items that realize φ -features. As (27) shows, 1st singular pronouns in Tenyidie show a case distinction; subject pronouns have a high tone (\acute{a}), whereas object pronouns bear a mid tone (\bar{a}). In order to capture this, we propose that

the Case features involved in V-licensing show a featural distinction relative to the licensing head. Following Murasugi (1992) and Müller (2009), we can distinguish between *external* (e.g. nominative/absolutive) and *internal* (e.g. accusative/ergative) Case features. For concreteness, we assume that Case features are also specified for a value INT(ERNAL) or EXT(ERNAL). While T checks or assigns external Case, ν (and other licensing heads) bear internal case. The Vocabulary Items that spell-out pronouns are sensitive to this distinction. So, the exponent in (30a) realizes 1st singular ϕ -features in combination with external Case assigned by T. This is the form that will be inserted for external arguments. The other exponent in (30b) realizes a DP with the same ϕ -features, but internal case. This form will be inserted with internal arguments.

- (30) a. $[\phi:1SG, CASE:EXT] \leftrightarrow \acute{a}$
 b. $[\phi:1SG, CASE:INT] \leftrightarrow \bar{a}$

Crucially, due to the mechanism of binding adopted here, the ϕ -features of the object are also present on ν , due to the mediated Agree relation. Furthermore, since ν V-licenses the object, it will also bear a matching Case value. If we assume that the uninterpretable/interpretable distinction is not relevant for morphological realization, then the Vocabulary Item in (30b) will also qualify for a candidate for insertion on ν , as shown in (29). The reason for this is that the exponents in (30) are underspecified for syntactic category. This is what allows the form for what is actually a pronominal object to be inserted into a licensing head such as ν . Assuming that a language like English had the same mechanism for binding, the object pronoun exponent would not be a candidate for an insertion into ν if it were specified for the syntactic category D, as in (31). Given the Subset Principle as the core restriction on Vocabulary Insertion (Halle & Marantz 1993; Harley & Noyer 2003), (31b) cannot be inserted into a syntactic terminal specified for a category other than D.

- (31) a. $[\phi:1SG, CASE:EXT, D] \leftrightarrow I$
 b. $[\phi:1SG, CASE:INT, D] \leftrightarrow me$

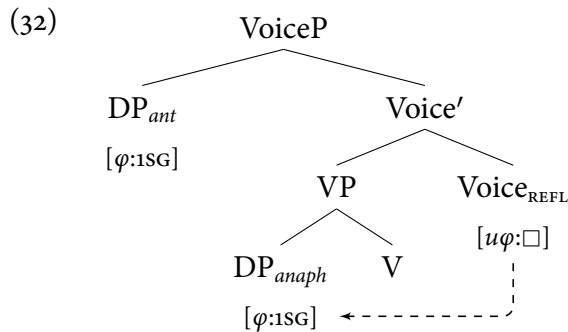
This analysis has a number of consequences. First, it shows how it is possible to have (what looks like) object agreement without ϕ -probes. Recall that anaphors are born with unvalued ϕ -features, but do not act as probes. In fact, in a language like Tenyidie without any kind of regular agreement, it seems reasonable to assume that the grammar, as a parametric setting of UG, lacks ϕ -probes entirely, which would be notated $[u\phi:\square]$.⁵ Thus, the impression of object agreement is actually the exceptional insertion of an object exponent on a licensing head such as ν that has mediated the binding relation and has thereby acquired a shared ϕ -feature. Importantly, this transfer of ϕ -features did not involve Agree initiated by a ϕ -probe, but rather feature-sharing that is parasitic on V-licensing and feature valuation under selection.

This analysis has another important consequence, namely that it restricts this apparent agreement to cases in which a head licenses a goal with unvalued features. This is the only context that will give rise to the necessary constellation of features for an object pronoun exponent such as the one in (30b) to be inserted on ν . Given the general lack of ϕ -probes in the language, this is the

⁵This could be implemented as a feature co-occurrence restriction in the lexicon, for example (cf. Gazdar et al. 1985).

only situation in which we could find valued φ -features on a head like v . Thus, it correctly accounts for the distribution of the object marker that we have seen so far, namely in local reflexivization contexts.

Of course, one could pursue an alternative approach where there is one specific head in the lexicon that comes with a φ -probe. This head could, for example, be a special Voice head for local (subject-oriented) reflexivization contexts (i.e. Reflexive Voice; e.g. Ahn 2015). The semantic contribution of this head can also ensure identity of reference between subject and object (Ahn 2015:179). This kind of analysis is sketched in (32).



Indeed, some languages seem to realize this head as a dedicated agreement morpheme on the verb, surfacing exclusively in local reflexivization contexts, e.g. Mohawk (33a) and Swahili (33b) (also see Lidz 2001).

(33) *Reflexive voice marking in Mohawk and Swahili* (Baker 1996:199; Woolford 1999:264):

- a. Sak r-atate-núhwe'-s
Sak MsA-REFL-like-HAB
'Sak like himself.'
- b. Ahmed a-na-ji-penda (mwenyewe)
Ahmed 3.SBJ-PRES-REFL-love (himself)
'Ahmed loves (HIMSELF).'

For Tenyidie, however, aside from the fact this approach fails to capture why this is seemingly the only context in the grammar in which we find something that looks like agreement, it also turns out to be too restrictive when a wider range of contexts are taken into account. The reflexive voice analysis predicts that we find agreement exclusively between co-arguments of a verb, i.e. a subject and its (direct) object. However, we will show that we find the object marker in a wider range of contexts. The mediated Agree analysis, on the other hand, makes a different prediction. Since what looks like object agreement surfaces as a reflex of anaphoric binding, this gives rise to what we call the *licensing-agreement correlation* (34).

(34) *Licensing-agreement correlation:*

The head that V-licenses an anaphor shows φ -covarying agreement with it.

This predicts that we should find the object marker with a wider range of heads that V-license anaphors. The following sections will show that this expectation is indeed borne out.

3.3 Control and ECM

So far, we have seen that a direct object anaphor triggers apparent object agreement on the verb that selects it. However, we also find this object marker when the anaphor is not an argument of the verb. One construction in which this is the case is *Exceptional Case-Marking* (ECM). The Tenyidie version of this construction is given in (35). More specifically, it is an indirect causative involving a light verb ‘let’, familiar from many other languages (e.g. Ritter & Rosen 1993; Folli & Harley 2013; Pitteroff & Campanini 2013; Wood & Sigurðsson 2014; Akkuş to appear).

(35) *ECM in indirect causative:*

á ñ bűnũ dzǝ krié bá
 1SG.SBJ 2SG.OBJ let water drink PROG
 ‘I am making you drink water.’

One thing that is particularly striking about this example is the word order. Recall that Tenyidie is a strictly head-final language. In (35), however, the embedded VP *dzǝ krié* (‘drink water’) occurs after the causative matrix verb *bűnũ* (‘let’). In order to account for this anomalous word order, we will assume that (35) derives from the underlying head-final structure in (36a) with extraposition of the embedded VP, which we treat as adjunction to the matrix *vP* (36b).

- (36) a. $[_{TP} \text{á} \quad [_{vP} [_{TP} \text{ñ} \quad [_{VP} \text{dzǝ krié}]] \text{bűnũ}] \text{bá}]$
 1SG.SBJ 2SG.OBJ water drink let PROG
- b. $[_{TP} \text{á} \quad [_{vP} [_{vP} [_{TP} \text{ñ} \quad \text{—}_{VP}] \text{bűnũ}] [_{VP} \text{dzǝ krié}]] \text{bá}]$
 1SG.SBJ 2SG.OBJ let water drink PROG
 ‘I am making you drink water.’

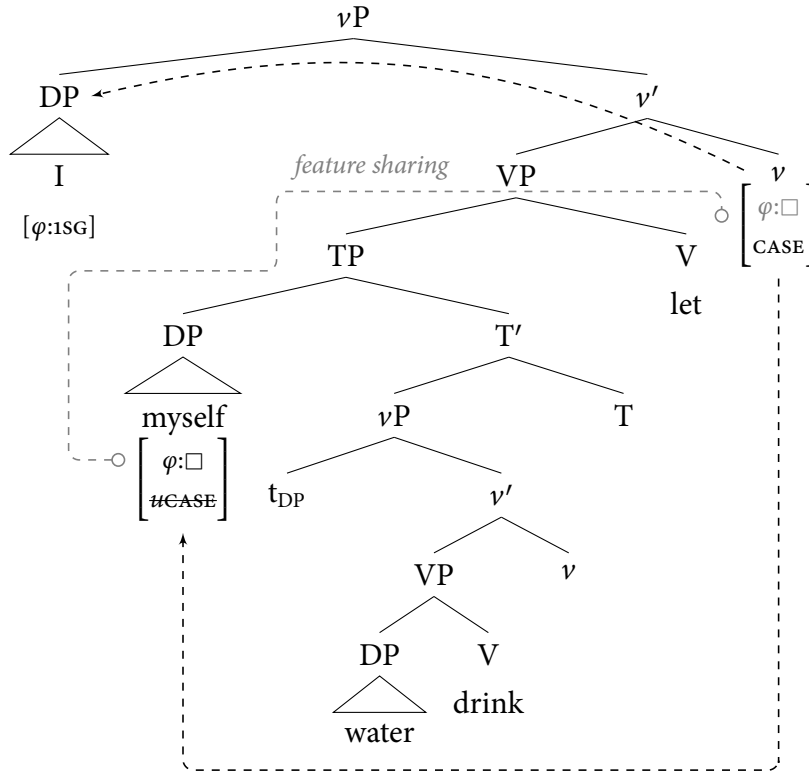
Another important aspect of this construction is that the embedded subject in (35) bears the objective form of the pronoun, suggesting that it is an instance of licensing by the matrix verb (ECM). Furthermore, if we replace the embedded subject with an anaphor, the 1st singular object marker appears on the matrix verb (37).

(37) *Anaphora in indirect causative:*

á ā-thuó *(ā-)bűnũ dzǝ krié bá
 1SG.SBJ 1SG-SELF *(1SG-)let water drink PROG
 ‘I am making myself drink water.’

Concentrating on the relevant part of the structure, we assume that matrix *v* is responsible for V-licensing the embedded subject, thereby causing it to surface with objective case. As (38) shows, if the embedded subject is an anaphor, then the feature-sharing condition is met and the ϕ -features of the anaphor are copied and shared onto matrix *v*. The matrix subject can then subsequently value both instances of the features, resulting in object agreement on the matrix verb.

(38)



This data is crucially incompatible with the view outlined in the previous section that the object marker signals some kind of special reflexive predicate, since the antecedent and anaphor are not co-arguments of the same verb. The licensing account, on the other hand, correctly predicts the appearance of the object marker in ECM contexts.

Tenyidie also has control constructions, as in (39). Here, we observe that the control dependencies do not result in agreement on the matrix verb.

(39) *Subject control:*

á_i [PRO_i dzǒ krié] (*ā-)nyǝ bá
 1SG water drink (*1SG-)want PROG
 'I want to drink water.'

The important difference between control and ECM is that the matrix control verb does not V-license the embedded subject PRO under most analyses of control. On this view, it is then expected that control does not show the object marker that we are assuming to be parasitic on a prior licensing relation. The two constructions can also be combined to give rise to the translational equivalent of canonical ECM in English (40a). In (40b), we see the object marker only on the causative 'let'-verb, but not on the matrix predicate.

- (40) a. á ñ būnū dzǒ krié nyǝ bá
 1SG.SBJ 2SG.OBJ let water drink want PROG
 'I want you to drink water.'
- b. á ā-thuó *(ā-)būnū dzǒ krié (*ā-)nyǝ bá
 1SG.SBJ 1SG-SELF *(1SG-)let water drink (*1SG-)want PROG
 'I want myself to drink water.'

Here, we assume that the embedded PRO subject can fulfil the function of the antecedent of the anaphor in the mediated Agree relation (41).

- (41) á_i [TP PRO_i [vP [TP ā-thuó_i —_{VP}] * (ā-)búnū] [vP dzǝ krié]] (*ā-)nyō bá
 1SG.SBJ 1SG-SELF *(1SG-)let water drink (*1SG-)want PROG
 ‘I want you to drink water.’

One might wonder how PRO can participate in this mediated Agree relation. While this analysis is most amenable to the Movement Theory of Control (Hornstein 2001; Boeckx & Hornstein 2004; Boeckx et al. 2010), where PRO would actually just correspond to the overt controller, it is also possible to assume that PRO bears φ -features (e.g. Landau 2000; Sigurðsson 2008; Ussery 2008; Reed 2014) and can therefore directly provide value the φ -features anaphor in the Agree relation mediated by v . The following sections will show that this also seems to be possible in a wider range of constructions.⁶

3.4 DP-internal anaphors

Another reason for discounting a reflexive voice analysis is the fact that we find the object marker with DP-internal anaphors. In Tenyidie, internal arguments of N precede the noun (42).

- (42) á [DP Kēví mhīrhī può] ŋú
 1SG Kevi picture INDEF see
 ‘I saw a picture of Kevi.’

If the internal argument is an anaphor bound by the matrix subject, we find the object marker on the head noun of the DP, as illustrated by the examples in (43).

- (43) *Anaphoric internal argument triggers agreement on noun:*

- a. á_i [DP ā-thuó_i * (ā-)mhīrhī può] ŋú
 1SG.SBJ 1SG-SELF *(1SG-)picture INDEF see
 ‘I saw a picture of myself.’
- b. nó_i [DP ñ-thuó_i * (ñ-)mhīrhī può] ŋú
 2SG.SBJ 2SG-SELF *(2SG-)picture INDEF see
 ‘You saw a picture of yourself.’
- c. Kēví [DP puō-thuó * (puō-)dzǝ può] pǔ bá
 Kevi 3SG-SELF *(3SG-)story INDEF tell PROG
 ‘Kevi is telling a story about himself.’

Let us adopt the relatively standard analysis that the internal argument of the noun is V-licensed by

⁶On the PRO approach, it is possible to assume that the φ -features of PRO are valued in the numeration and, as Landau (2000:62) suggests, thus ‘require identification (i.e. co-indexing) but not valuation’. This would be akin to a checking approach, where control involves Agree between the controller and PRO, without valuation. An alternative would be to assume a valuation approach under Agree in which PRO receives its φ -features under Agree with the controller (Landau 2000; Sigurðsson 2008; Ussery 2008). On this view, the feature-sharing dependency between the anaphor and v will be extended to PRO, which would also bear unvalued φ -features on this view. All instances would then be valued simultaneously once the controller establishes an Agree relation with PRO. Also, while it has been suggested that this relation can be mediated by a functional head (e.g. Landau 2004, 2008; van Urk 2013), it crucially does not involve V-licensing and, as such, will not be relevant for the feature sharing condition in (24).

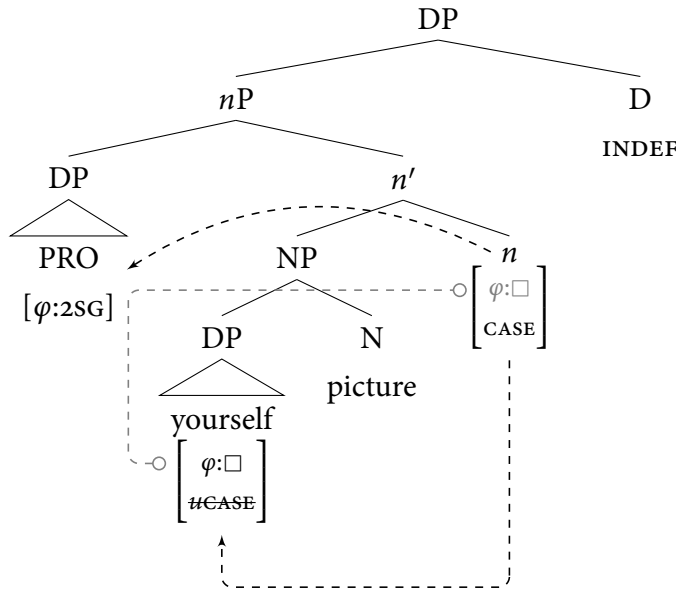
the functional head n (e.g. Adger 2003). In English, this gives rise to *of*-marking (44).

- (44) $[_{DP} [_{DP} \text{the army}] [_{D'} [_{D} \text{'s}] [_{nP} n_{[CASE]} [_{NP} [_{N} \text{destruction}] [_{DP} \text{the city}]_{[CASE}]]]]]$
----- of -----

Furthermore, we will assume that, in the absence of an overt possessor, nominals contain a null PRO subject. There is varied corroborating evidence for this from different domains, see e.g. Chomsky (1986) and Fox & Nissenbaum (2004) on exempt anaphors/pronouns, Haegeman (2004) on a DP-internal AAE effect, Bruening (2013) on *by*-phrases in nominals, and Sichel (2009, 2010) on control in DP (also see Landau 2010:375,fn.18 for a summary of other arguments).

As the previous section showed, PRO is able to act as the source of φ -features in the mediated Agree relation resulting in anaphoric binding. Since n mediates binding between the anaphoric internal argument and the (null) external argument in the DP, the necessary conditions for feature sharing, and thus object agreement, are given (45).

- (45) $n\acute{o}_i$ $[_{DP} \bar{n}\text{-thu}\acute{o}_i$ $*(\bar{n}\text{-})mh\bar{i}rh\bar{i}$ $pu\acute{o}$] $\eta\acute{u}$
 2SG 2SG-SELF *(2SG-)picture INDEF see
 ‘You saw a picture of yourself.’



Analogous to v in the previous analyses, the φ -features transferred to the anaphor via n can also be realized on the noun after N-to- n movement.

Furthermore, the external argument of the noun can be realized overtly as a possessor (46).

- (46) *Binding by possessor inside DP:*
 $K\acute{e}v\acute{i}$ $[_{DP} \bar{a}$ $\bar{a}\text{-thu}\acute{o}$ $*(\bar{a}\text{-})mh\bar{i}rh\bar{i}$ \bar{u}] $\eta\acute{u}$
 Kevi 1SG 1SG-SELF *(1SG-)picture DEF see
 ‘Kevi saw my picture of myself.’

In such cases, the possessor occupies the position of PRO in (45) and is again the source of the φ -features in the mediated Agree relation.

3.5 PP-internal anaphors

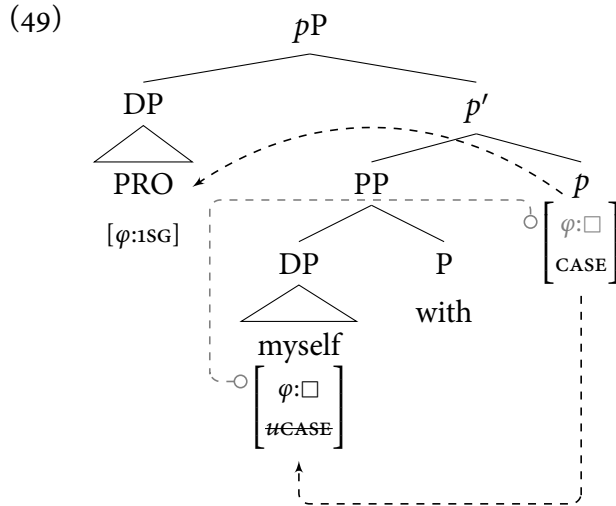
The object marker is also found with bound anaphors inside PPs. With the PP headed by the postposition *gĩ* ('on') in (47a), we see that P can also host the object marker if its complement is an anaphor (47b).

- (47) a. á lēfódà ũ [PP thēzókĩ gĩ] pē-zókĩ fók
 1SG book DEF bed on CAUS-lie PERF
 'I put the book on the table.'
 b. á lēfódà ũ [PP ā-thuókĩ *(ā-)gĩ] pē-zókĩ fók
 1SG book DEF 1SG-SELF *(1SG-)on CAUS-lie PERF
 'I put the book on the myself.'

Similar facts obtain with the preposition *zé* ('with'), which also hosts the object marker in (48b).

- (48) a. á [PP Kēví zé] léfókĩ nū vók
 1SG Kevi with school LOC go
 'I went to school with Kevi.'
 b. á [PP ā-thuókĩ *(ā-)zē] léfókĩ nū vók
 1SG 1SG-SELF *(1SG-)with school LOC go
 'I went to school with myself.'

These observations also fit with the view that the object marker surfaces on heads which perform a V-licensing function. In keeping with the preceding analyses, we assume that the object of a preposition is licensed by a functional head *p* (see e.g. Svenonius 2003, 2010). Furthermore, let us posit, as we did for DPs, a PP-internal PRO that acts as the source of the φ -features for the anaphor.⁷



⁷Some motivation for PRO inside PPs comes from the status of PPs as individual binding domains (Chomsky 1981, 1986; Hestvik 1991):

- (i) John_i saw a snake [PP PRO near him_i] (Chomsky 1981:291)

As (i) shows, a bound pronoun inside the PP does not lead to a Condition B effect. This makes sense if the presence of a PRO in (i) renders the PP a *Complete Functional Complex* in the sense of Chomsky (1986) and thus its own binding domain.

3.6 Interim summary

This section has shown that, in addition to verbs, both nouns and prepositions also show the object marker when its complement is an anaphor. This is problematic for the view that the object marker encodes some kind of reflexive voice. Furthermore, it supports the licensing agreement correlation that we proposed in (34) since we find the object marker on functional heads such as *v*, *n* and *p*, which are all licensing heads. In the following section, we will further support for this view.

4 Ditransitives

This section presents evidence from ditransitives in support of the proposal that there is a close link in Tenyidie between apparent ‘anaphoric agreement’ and licensing. In particular, we will see that some otherwise puzzling restrictions on anaphors in double object constructions make sense in light of the present analysis.

4.1 The structure of ditransitives

The basic word order of a ditransitive in Tenyidie has the direct object (DO) preceding the (IO) (50a). The reverse order (IO before DO) is not possible with the same reading (50b).

(50) *Double object constructions have neutral DO-IO order:*

- a. á lēttēr ū Kēví pēkiē ʃó
 1SG letter DEF Kēví show PERF
 ‘I showed the letter to Kēví.’
- b. *á Kēví lēttēr ū pēkiē ʃó
 1SG Kēví letter DEF show PERF
 ‘I showed the letter to Kēví.’

To account for this word order, we assume that double object constructions in Tenyidie have a left-branching structure, with the IO hosted in a rightward specifier of ApplP (see Bruening 2010b for a similar assumption).

(51) [ApplP [Appl' [VP DO V] Appl] IO]

This structure is supported by evidence from scope. As (52) shows, the IO obligatorily takes scope over the DO, despite following it linearly. Furthermore, this is the only available reading.

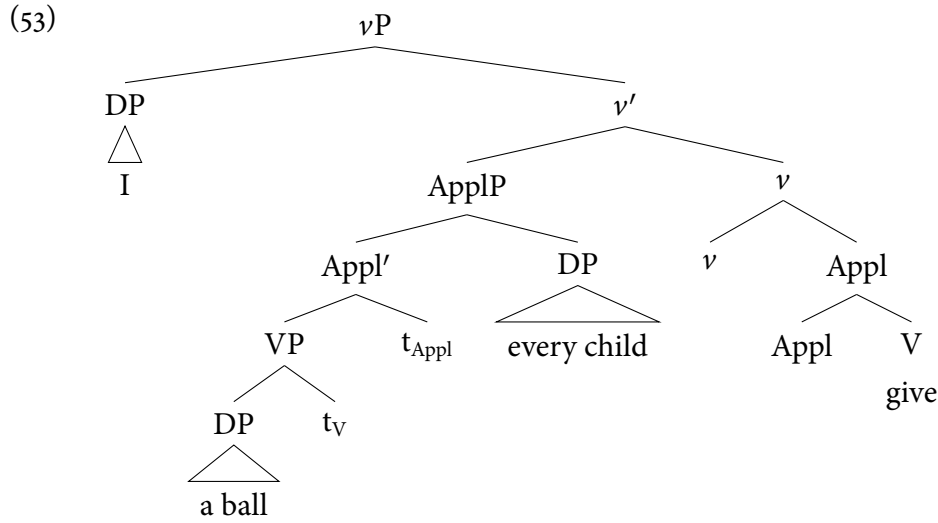
(52) *Scope relations in ditransitives:*

- á [DP bāll può] [DP nhīcū-jǒ puòpuò kēcá] tsə ʃó
 1SG ball INDEF child-DIM every PRT give PERF
 ‘I gave a ball to every child.’ (∀ > ∃, *∃ > ∀)

This follows naturally from the structure in (51), since the IO c-commands the DO in its base structure.⁸ This can be seen more clearly in the tree in (53), where we also assume head movement of the

⁸Also note that scope is frozen in this construction. This could result from the presence of ApplP, following Bruening’s (2001; 2010a) analysis of scope freezing in English ditransitives. Note that other classic diagnostics for the structure

verb to v to derive the correct surface word order.



We also assume that subject moves to Spec-TP and the verb moves further to T, however this will not be relevant for the following discussion.

4.2 Anaphora in ditransitives

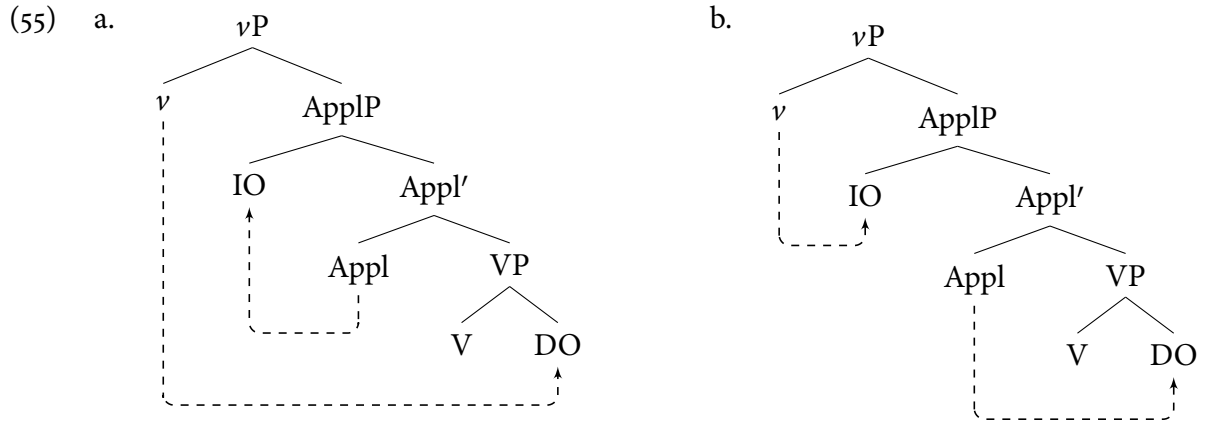
With the structure of ditransitives in place, we now observe an interesting restriction on anaphora in double object constructions in Tenyidie. While the indirect object can be an anaphor bound by the subject (54a), the direct object cannot (54b).

(54) *Reflexive must be IO not DO:*

- a. á_i lēttēr ū ā-thuó_i ā-pēkiē j́ó
1SG letter DEF 1SG-SELF 1SG-show PERF
'I showed the letter to myself.'
- b. *á_i ā-thuó_i Kēví (ā-)pēkiē j́ó
1SG 1SG-SELF Kevi 1SG-show PERF
'I showed myself to Kevi.'

In order to see how this restriction follows under the present account, we must first establish how licensing works in double object constructions. It is often assumed that there are in principle two licensing configurations for the internal arguments of a ditransitive verb and that the choice between them is subject to language-specific parametric variation (Haddican & Holmberg 2018:100; Holmberg et al. 2019:686f.). The first involves licensing by Appl of the IO in its specifier and downward licensing of the DO by v (55a). The alternative is to have uniformly downward licensing relations in (55b).

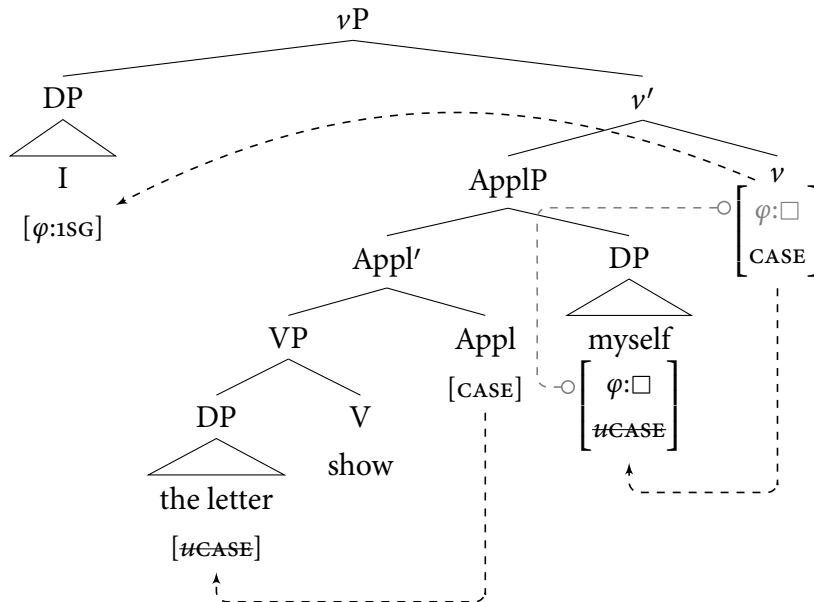
of ditransitives such as variable binding (Barss & Lasnik 1986) are not applicable for independent reasons. For example, binding of DO by IO fails due to a general constraint against backward anaphora in the language (see section 4.5 and footnote 13 for further discussion).



We will assume that Tenyidie has the nested licensing relations in (55b) where Appl licenses the direct object and v licenses the indirect object (see Georgala et al. 2008; Haddican & Holmberg 2018; van der Wal 2020; and also Adger & Harbour 2007:24 on agreement).

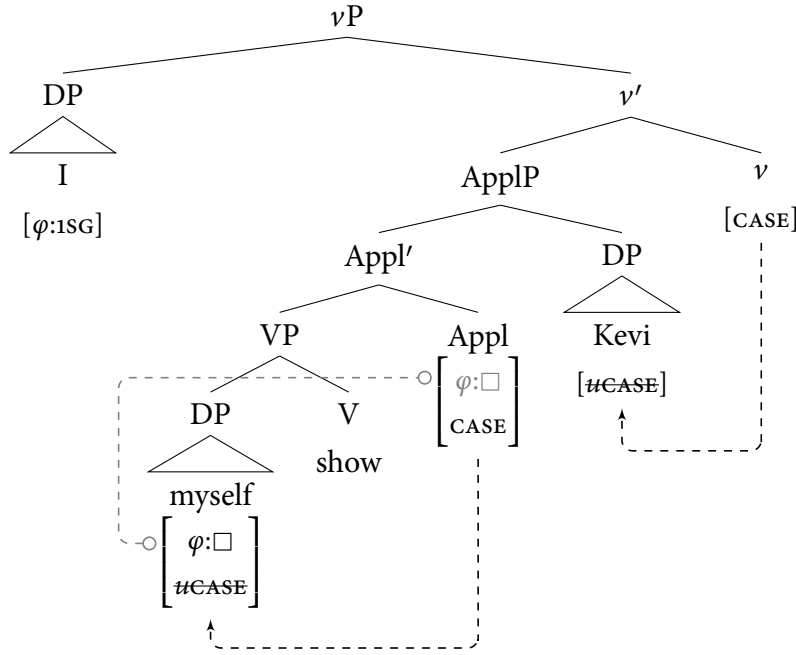
Recall that, given our present assumptions about binding, the anaphor must receive φ -features from its antecedent, mediated by the head that licenses the anaphor. Since v licenses the indirect object, it creates the necessary feature sharing dependency required to transfer the φ -features from the external argument to the anaphor, as shown in (56).

- (56) á_i lèttêr ū ā-thuó_i ā-pēkiē jǒ
 1SG letter DEF 1SG-SELF 1SG-show PERF
 ‘I showed the letter to myself.’



The direct object, on the other hand, is licensed by Appl. A consequence of this is that there is no mediated Agree relation between the anaphor and its antecedent (the subject). Thus, while feature-sharing between Appl and the DO can be established, the φ -features of the subject cannot be transferred to the DO and, as a result, the example in (57) cannot be derived.

- (57) *á_i ā-thuó_i Kēví (ā-)pēkiē jǒ
 1SG 1SG-SELF Kēví 1SG-show PERF
 ‘I showed myself to Kēví.’



Thus, the dependency of anaphoric binding on a prior licensing relation to mediate the transfer of ϕ -features can explain this asymmetry in double object constructions.⁹

4.3 Dative alternation

Like English, Tenyidie also has a dative alternation. Although we saw in (54b) that it is typically impossible to have the IO precede the DO, this option becomes available if the IO is marked by *ki* (58b), as also noted by Kevichüsa (2007) and Subbārāo (2012:21f.).

- (58) *IO-DO order requires ki-marking:*

- a. á lēttēr ū Kēví pēkiē jǒ
 1SG letter DEF Kēví show PERF
 ‘I showed the letter to Kēví.’
 b. á Kēví kǐ_i lēttēr ū —₁ pēkiē jǒ
 1SG Kēví KI letter DEF show PERF

⁹Note that this asymmetry is problematic for other approaches to binding such as Kratzer (2009). In her approach, binding of DO anaphors is also facilitated by ν , however she takes a semantic approach. For a sentence like *I blame myself*, the reflexive is interpreted as a free individual variable $[n]$. A binder for this variable is introduced by ν (i). This turns the VP into a reflexive predicate (ia) (cf. Reinhart & Reuland 1993). The VP can now compose with the meaning of ν in (ib) via Predicate Modification (ic).

- (i) $[_{\nu P} I [_{\nu'} \nu [\lambda [n] [_{VP} blame [n]]]]]]$
 a. $[[\lambda [n] [_{VP} blame [n]]]] = \lambda y \lambda e. \mathbf{blame}(y)(e)$
 b. $[[\nu]] = \lambda x \lambda e. \mathbf{agent}(x)(e)$
 c. $[[\nu']] = \lambda x \lambda e. \mathbf{blame}(x)(e) \wedge \mathbf{agent}(x)(e)$

Feature transmission from the anaphor is assumed to involve unification with ν followed by Spec-Head Agreement with the antecedent (i.e. Predication) (Kratzer 2009:195f.). Crucially, Kratzer’s account predicts that ‘any argument position within a sister VP should be accessible for binding from a given ν' ’ (Kratzer 2009:194). No asymmetry between indirect and direct objects is expected on this analysis, in contrast to the licensing-based proposal advocated here.

‘I showed Kevi the letter.’

We analyze *ki* as a postposition. As (59b) shows, the availability of *ki*-marking appears to be linked to a change in word order. Concretely, we analyze this as the result of short movement of the IO to a structurally-higher position, e.g. νP .¹⁰ Furthermore, we suggest that the insertion of *ki* follows from what Richards (2010) calls *Distinctness*.

Richards (2010) argues that two non-distinct phrases cannot occur in the same Spell-Out domain (i.e. the same phase), since this leads to a linearization problem. For example, two DPs in the same Spell-Out domain would lead to the linearization statement $\langle DP, DP \rangle$, which violates the general Distinctness requirement. He shows that a vast array of linguistic phenomena can be explained in this way. Among other things, he treats Differential Object Marking (DOM) as a Distinctness repair. In Chaha, for example, specific indefinites bear a special marker $y\theta$ - (59a), which is not found with nonspecific indefinites (59b).

(59) *Differential Object Marking in Chaha* (Richards 2010:26):

- a. Giyə $y\theta$ -fəraz nək^wəsənim
dog $y\theta$ -horse bit
‘A dog bit a (specific) horse.’
- b. Giyə fəraz nək^wəsənim
dog horse bit
‘A dog bit a (nonspecific) horse.’

Richards (2010:27f.) argues that (59a), and similar patterns of DOM, result from scrambling of an indefinite to a higher position to receive a specific interpretation (e.g. Diesing 1992). This higher position places the object in the same Spell-Out domain as the subject and, in order to satisfy Distinctness, a functional projection headed by $y\theta$ is adjoined to the object. Richards assumes that this is a K(ase)P in (59a), but what is actually important is that it is a phase head, since this additional functional projection crucially introduces an additional phase boundary and leads to the DPs being linearized in different Spell-Out domains. In some respects, this is quite similar in spirit to Dependent Case (e.g. Marantz 1991; Baker 2015). However, an important difference between Distinctness and Dependent Case is that the former is more general. In other words, it is not just case shells that can be merged to satisfy Distinctness, Richards also argues that PPs can be adjoined, which is the analysis he proposes for *of*-marking in nominalizations such as *the destruction of the city* (44), as well as for the construct state in Hebrew (Richards 2010:70ff.). The addition of a PP on the object *the city* provides an additional phase boundary to separate it from the other DP in the Distinctness-violating underlying structure **the destruction the city*.

Taken together, we can draw on these assumptions for the analysis of *ki*-marking. In (58), we

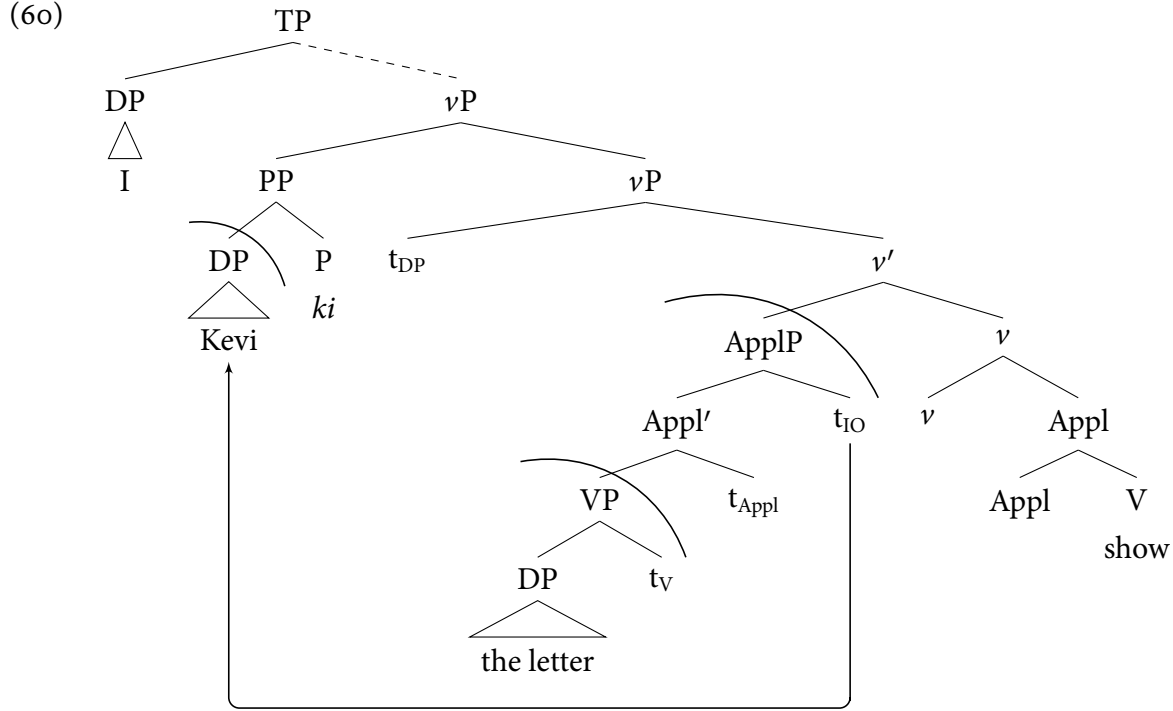
¹⁰Even though the relative linear of the arguments change, the c-command relations do not change. As expected given the structure we are assuming, neither do the scope relations:

(i) *Dative shift does not change scope relations:*

á [PP nhĩcú-jó puòpuò kēcó kí] [DP báll può] —PP tsə́ fój
1SG child-DIM every PRT KI ball INDEF give PERF
‘I gave every child a ball.’

($\forall > \exists, * \exists > \forall$)

clearly see that *ki*-marking results from movement of the indirect object to a higher position. We propose that alongside v and C, Appl is also a phase head in Tenyidie (e.g. McGinnis 2001). Consequently, in its base-position, the indirect object is in a different Spell-Out domain to both the direct object and the subject. Scrambling it to a higher position, however, places it in the same Spell-Out domain as the subject (the phase complement of C) and would therefore lead to a Distinctness violation. To avoid this, we assume that the P head *ki* is late-adjoined to the DP as a repair (60).



Following Abels (2012), we also assume that P is a phase head. This means that, in (60), each of the DP arguments is in a separate Spell-Out domain and no Distinctness violation is incurred. This then accounts for the link between movement and *ki*-marking.

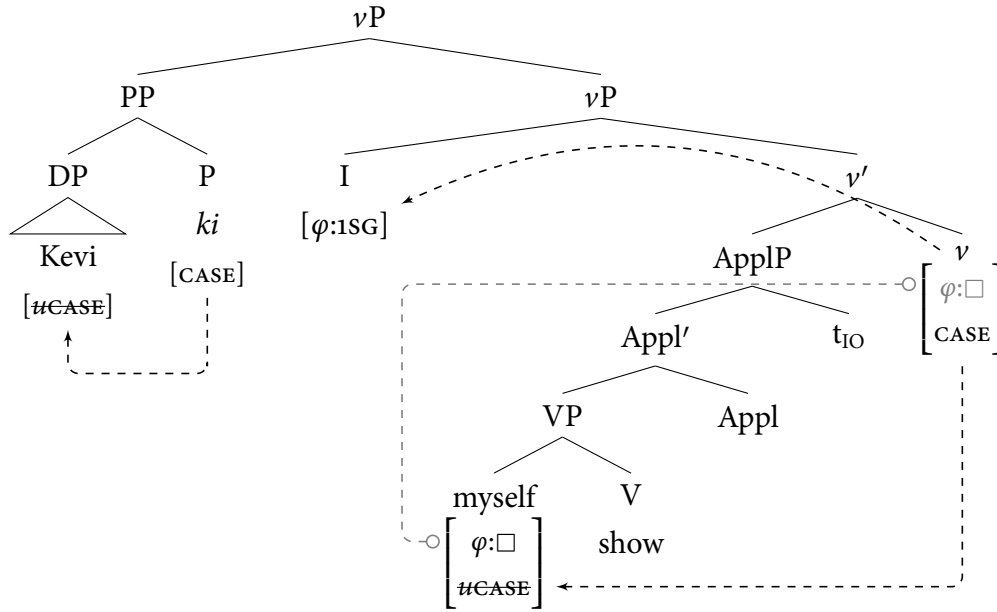
Recall that binding of a direct object anaphor by the subject was ungrammatical in the non-shifted construction (57). If the IO is moved and *ki*-marked as in (60), however, binding of the DO now becomes possible (61).

(61) *Reflexive DO possible if IO is scrambled:*

á_i Kēví k_i ā-thuó_i —_i ā-pēkiē ʃó
 1SG Kevi KI 1SG-SELF 1SG-show PERF
 'I showed myself to Kevi.'

This follows on the present analysis. In the dative-shift construction, the IO has been moved out of the way so that v can license the DO anaphor and thereby establish the necessary mediated Agree relation with its antecedent (62).

(62)



The IO in (62) is V-licensed by the postposition *ki* that is inserted as part of the Distinctness repair outlined above.¹¹ This raises more general questions about the distribution of licensors. For example, why does Appl not bear a Case probe in (62)?

In this regard, we broadly adopt the assumptions about licensing laid out in Kalin (2018). She proposes that ‘clauses typically have just one obligatory licenser (always merged), with secondary licensors merging only when needed for convergence’ (Kalin 2018:115). This is captured by (63).

(63) *Licensing Economy Principle* (Kalin 2018:139):

A secondary licenser is activated iff the derivation will not otherwise converge.

For Tenyidie, we assume that the primary licenser in the vP domain is v . Since V-licensing involves Agree in Case features, this means that v always enters the derivation with a $[CASE]$ probe. For ditransitive verbs, an additional licenser will be required for the other internal argument. Given (63), this means that an additional Case feature can be added to the derivation in such cases.¹² In the unmarked case, this additional licenser will merged on Appl, which will agree with the DO as in (56). Since the licensing feature on Appl is not inherent, its function can instead be fulfilled by adding a licensing feature to the P head *ki* in (62). The economy condition in (63) dictates that there cannot be a feature on both Appl and P, since only one of them is required to license the additional internal argument. This analysis predicts that, in a derivation such as (62), the secondary licensing feature could also be included on Appl rather than P. This is exactly what the next section will show.

¹¹Note that, as shown in section 3.5, it is actually a functional head p that licenses the object of the preposition. In the following discussion, we still assume this to be the case, but simplify the representation of these structures for expositional purposes.

¹²We remain agnostic about whether this implies that features are inserted in the derivation (in violation of the *Inclusiveness Condition*; Chomsky 1995), or whether (63) can be implemented as a well-formedness constraint on the numeration itself. On the face of it, both options seem viable for Tenyidie.

4.4 Binding from the indirect object

The restriction that an DO anaphor cannot ordinarily be bound by the subject (57) was argued to follow from the lack of a mediated relation between its canonical licenser Appl and the external argument. While this can be circumvented by recruiting an alternative licenser on P, as the previous section showed, a simple prediction is that binding of a DO anaphor from the indirect object should be unproblematic. This is because the IO is introduced in Spec-Appl and this allows for mediated transfer of φ -features to the anaphor via Appl.

This prediction is not straightforwardly borne out, however. As (64a) shows, the IO cannot bind the DO in its base position. When the IO undergoes object shift and obtains the concomitant *ki*-marking, however, then binding is ungrammatical (64b).

(64) *IO can bind anaphor in shifted position:*

- a. *á puō-thuó_i Kēví_i (puō-)pēkiē fǎ
 1SG 3SG-SELF Kevi (3SG-)show PERF
 ‘I showed Kevi himself.’
- b. á [PP Kēví_i kǐ]₁ puō-thuó_i —₁ *(puō-)pēkiē fǎ
 1SG Kevi KI 3SG-SELF *(3SG-)show PERF
 ‘I showed himself to Kevi.’

At first, this may seem like a puzzling restriction, however it follows from an independent property of language. In Tenyidie, it is generally the case that an R-expression may not be linearly preceded by an element that is referentially dependent on it. This is a configuration that has been termed *backward anaphora* (e.g. Ross 1967; Langacker 1969) and seems to uniformly prohibited in Tenyidie. Sulemana (2019) reports a similar restriction in Bùlì and proposes the following constraint to capture it (65).

(65) *Backward Anaphora Constraint* (Sulemana 2019:18):

An R-expression may not be linearly preceded by a nominal co-indexed with it.

This constraint also seems to be active in Tenyidie. For example, a pronoun cannot be construed as co-referent with an R-expression that it linearly precedes (66a). This is striking, since this cannot be attributed to Condition C due to the lack of c-command (comparable examples have been reported as grammatical in English). Thus, it seems necessary to appeal to something like (65) to rule out it. Furthermore, while we saw in (13) that an anaphor can undergo rightward displacement, leftward movement is ungrammatical (66b). This is equally ruled out by (65).¹³

¹³A further piece of evidence for the activity of this constraint comes from variable binding in ditransitives. A variable bound by a quantifier must take the impersonal form of the pronoun *u-* (analogous to *one(s)* in English). Despite the c-command relation, an IO cannot bind a variable in the DO from its base-position (ia). Applying object shift to a *ki*-marked position, however, renders binding grammatical (ib). This also follows from the backward anaphora constraint.

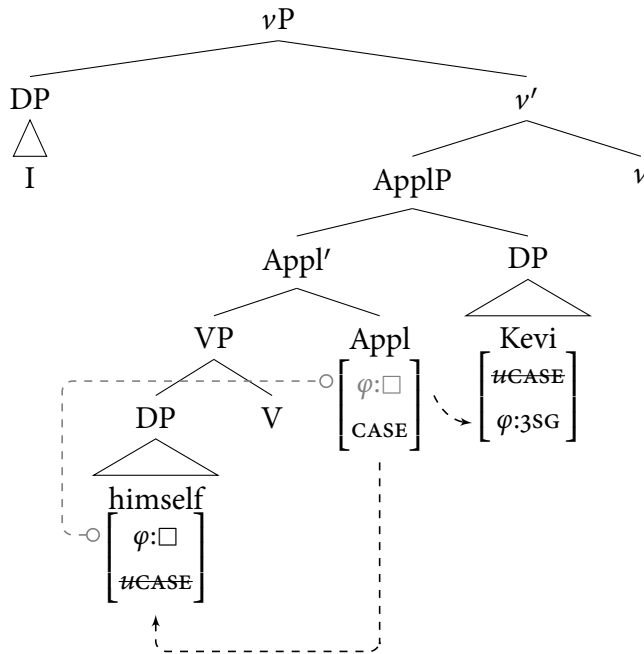
- (i) a. *á [DP (ū_i-thió) ū_i-ʒuó] [DP thēmiē puòpuò_i kēcó] pēkiē fǎ
 1SG (IMP-SELF) IMP-mother person every PRT show PERF
 b. á [PP [DP thēmiē puòpuò_i kēcó] kǐ] [DP (ū_i-thió) ū_i-ʒuó] —_{IO} pēkiē fǎ
 1SG person every PRT KI (IMP-SELF) IMP-mother show PERF
 ‘I showed everyone_i his_i mother.’

(66) *No backward anaphora in Tenyidie:*

- a. *_[DP puō_i ʒuó] Kēví_i khrié bá
 3SG mother Kevi love PROG
 ‘His_i mother loves Kevi_i.’
- b. *ā-thuó_i á_i — ā-tshē bá
 1SG-SELF 1SG.SBJ 1SG-praise PROG
 ‘Myself, I am praising.’

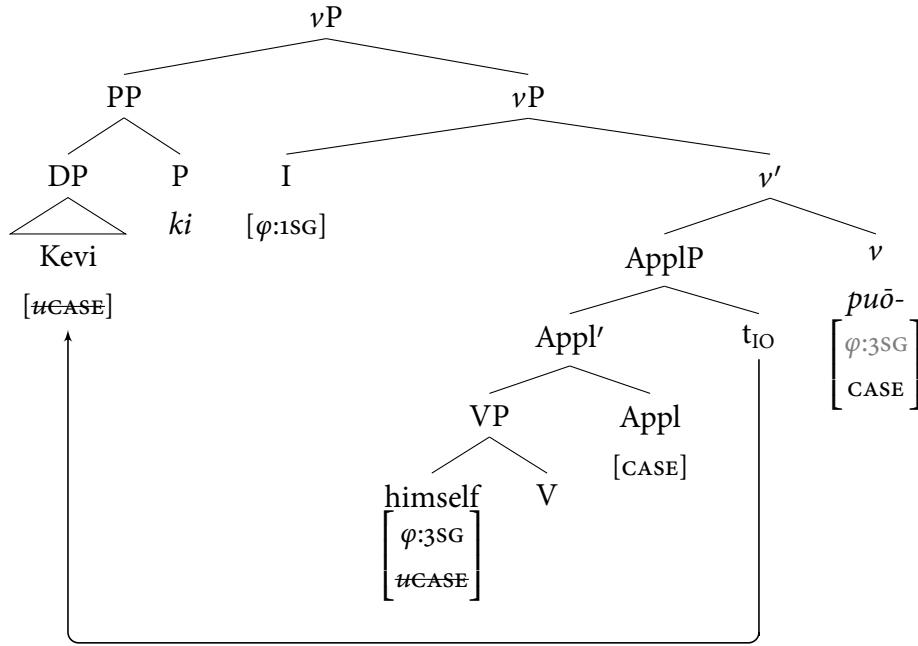
In light of this, the necessity of scrambling in (64) becomes apparent. In its base-position (64a), the IO is linearly preceded by the anaphor it binds, in violation of the *Backward Anaphora Constraint*. This constraint can be satisfied by scrambling the IO to a higher-position where it precedes the DO in (64b). Unlike the derivation in (62), however, the secondary licensing feature is situated on Appl rather than P (67). This is in line with the *Licensing Economy Principle* (63). Thus, the IO is licensed in its base-position, leading to a successful mediated Agree relation with the anaphor via Appl:

- (67) á [PP kēví ki]_i puō-thuó —_i *(puō-)pēkiē ʃó
 1SG Kevi KI 3SG-SELF *(3SG-)show PERF
 ‘I showed himself to Kevi.’



After binding has been established, the IO must be moved to a higher position in order to satisfy the *Backward Anaphora Constraint*. As we have seen, *ki*-marking is the result of a Distinctness repair when the IO is placed in the same Spell-Out domain as the subject. Thus, a PP shell is adjoined to the IO in its derived position (68).

(68)

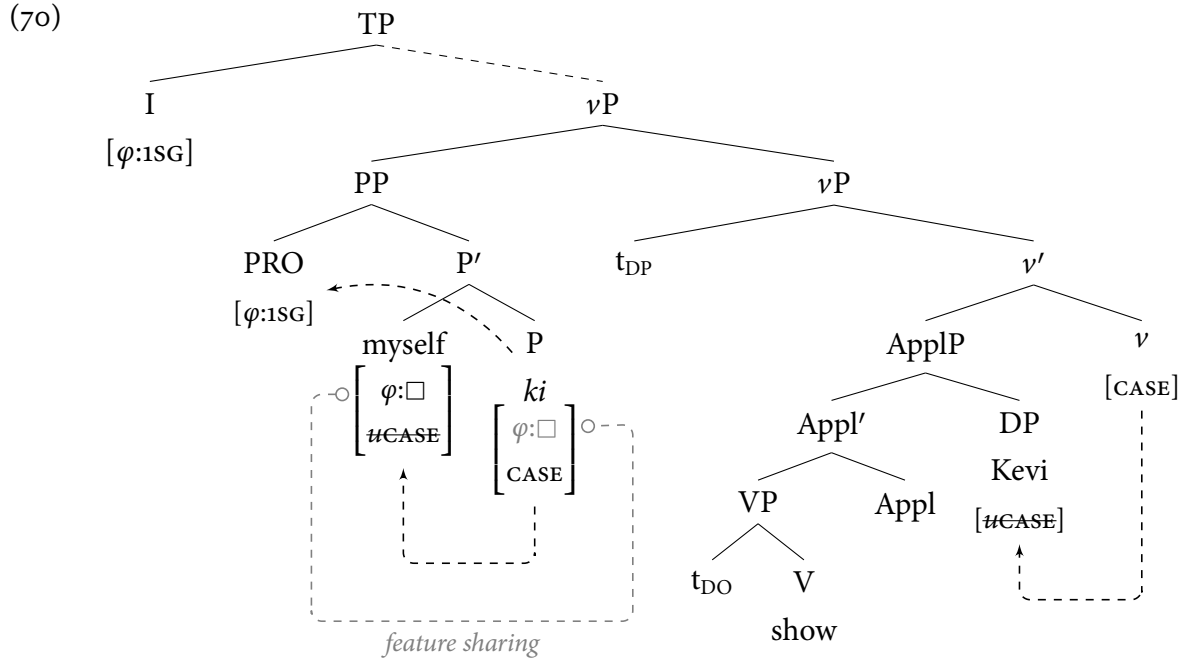


Finally, there also seems to be the option of binding taking place entirely PP-internally. Recall that binding of the anaphor from the subject was not possible if the IO intervenes (69a). While one way to rectify this was to move the IO and provide it with a PP-internal licenser (62), it is also possible to move the DO itself to a higher position with the relevant *ki*-marking (69b).

(69) *Alternative licensing for DO anaphor by P:*

- a. * \acute{a}_i \bar{a} -thuó_i Kēví (\bar{a} -)pēkiḗ ʃó
 1SG 1SG-SELF Kevi 1SG-show PERF
 'I showed myself to Kevi.'
- b. \acute{a}_i [_{PP} \bar{a} -thuó_i \bar{a} -kí]_i —_i Kēví pēkiḗ ʃó
 1SG 1SG-SELF 1SG-KI Kevi show PERF
 'I showed Kevi myself.'

In (69b), we now see the object marker \bar{a} on the postposition *ki*. As discussed in section 3.5, the object marker on an adposition was argued to follow from the presence of a PRO argument inside the PP. For the analysis of (69b), we assume that, in addition to Late Merger of the P head, a PRO argument can also be introduced as the specifier of P (70).



Thus, when the anaphor is V-licensed by *ki*, the necessary mediated configuration for φ -feature transfer is given and the anaphor can receive φ -features.

4.5 Serial verbs

There is yet another construction available for ditransitives in Tenyidie. Alongside the canonical ditransitive we have seen thus far (71a), there is also a variant involving the morpheme *pie* (71b).

- (71) a. á lēʃódà può Kēví pēkiē ʃó
 1SG.SBJ book INDEF Kevi show PERF
 ‘I showed Kevi a book’
 b. á lēʃódà può piē Kēví pēkiē ʃó
 1SG.SBJ book INDEF PIE Kevi show PERF
 ‘I showed a book to Kevi’

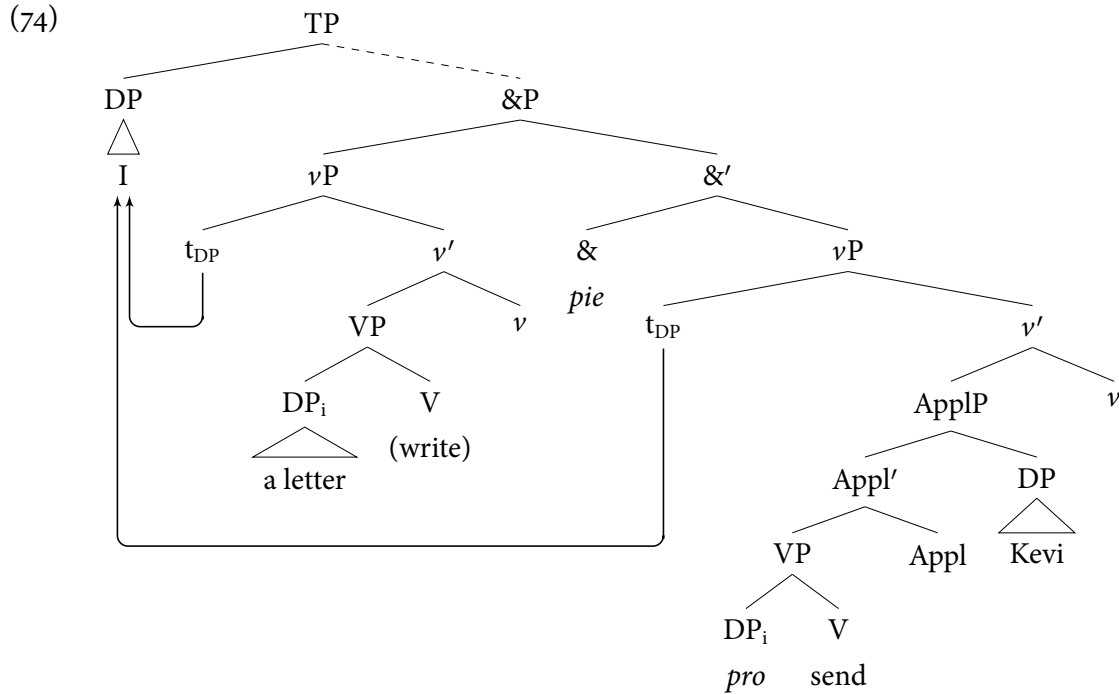
The status of this additional *pie* element is rather puzzling. While it is tempting to analyze it as an additional verb, we suggest that this morpheme actually signals a different structure is involved, namely a serial-verb construction. This is supported by the fact that, in addition to *pie*, it is possible to have a lexically-contentful verb. In (72a), the verb *thu* (‘write’) co-occurs with *pie*, followed later in the clause by *tsə* (‘give’) (72a). Furthermore, the transitive variant of ‘give’ *kha* can also co-occur with its ditransitive counterpart *tsə* (72b).

- (72) a. Kēví lētēr può thú-piē ñ tsə ʃó
 Kevi letter INDEF write-PIE 2SG.OBJ give PERF
 ‘Kevi wrote me you letter.’
 b. Kēví lēʃódà può khà-piē ñ tsə ʃó
 Kevi book INDEF give.TR-PIE 2SG.OBJ give PERF
 ‘Kevi gave a book to you.’

While it might be tempting to assume that *pie* can form some kind of complex predicate with these verbs, note that *pie* cannot occur outside of this multi-verb construction (73).

- (73) a. Kēví lēʃódà può khà(*-piē) ʃó
 Kevi book INDEF give.TR(*-PIE) PERF
 ‘Kevi gave a book.’
 b. Kēví lēttēr può thú(*-piē) ʃó
 Kevi letter INDEF write(*-PIE) PERF
 ‘Kevi wrote a letter.’

With this in mind, we suggest that *pie* is actually the head of a coordination phrase &P. The variant of & that is realized as *pie* also selects for conjuncts of a particular size, namely *v*Ps (see Keine 2013 for similar assumptions regarding switch reference marking).¹⁴ The analysis we assume for an example like (72a) is given in (74).



Serial verb constructions are known to often involve object sharing (e.g. Baker 1989). For concreteness sake, we adopt a version of the proposal in Collins (1997) where the second object is realized as a *pro*, however the analysis is compatible with other approaches too (e.g. Hiraiwa & Bodomo 2008). This construction also involves subject sharing. We aim to capture this by assuming, following Amaechi & Zimmermann (2019), that the subjects of each *v*P conjunct undergo ATB-movement to a single Spec-TP position. Thus, the low coordination signalled by *pie* gives rise to ‘deletion’ of the second subject via ATB (cf. Johnson 2009 on gapping). Finally, notice that the verb in the first conjunct appears to be optional, as we saw in (71b).

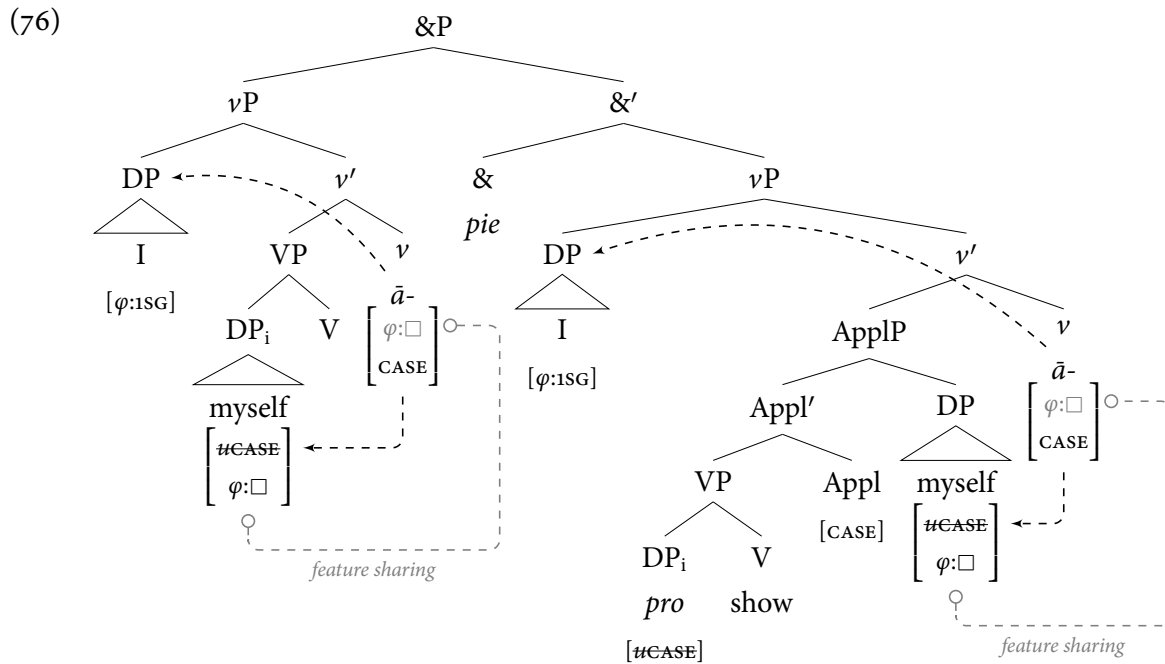
¹⁴Note that coordination of larger conjuncts involving independent subjects leads to a different coordinator *mú* (i).

- (i) [á ñ thsē bǎ] mú [nó Kēví thsē tiō]
 1SG.SBJ 2SG.OBJ praise CONT and 2SG.SBJ Kevi praise FUT
 ‘I am praising you and you will praise Kevi.’

With this structure in place, consider now the options with anaphors in this construction (75). If the anaphor is the (indirect) object the second verb (75a), then the object marker surfaces only on this verb. The same pattern arises with an anaphor in the first conjunct. In the absence of a lexical verb, the marker surfaces adjacent to *pie* (75b). This construction also allows for the anaphor to be realized twice. In this case, we find the object marker in each of the conjuncts (75c).

- (75) a. á lēfódà può (*ā-)piē ā-thuó *(ā-)pēkiē fǒ
 1SG.SBJ book INDEF *(1SG-)PIE 1SG-SELF *(1SG-)show PERF
 ‘I showed a book to myself.’
 b. á ā-thuó *(ā-)piē kēví *(ā-)pēkiē fǒ
 1SG.SBJ 1SG-SELF *(1SG-)PIE Keví *(1SG-)show PERF
 ‘I showed myself to Keví.’
 c. á ā-thuó *(ā-)piē ā-thuó *(ā-)pēkiē fǒ
 1SG.SBJ 1SG-SELF *(1SG-)PIE 1SG-SELF *(1SG-)show PERF
 ‘I showed myself to myself.’

Given the structure in (74), each of the ν heads licenses its object and can potentially create a mediated Agree relation with its local external argument. This can be seen most clearly for the complex example in (75) given in (76).



Since each of the anaphors is licensed by a ν in its respective conjunct, this can account for the presence of two object markers. In the absence of an overt verb in the first conjunct, the phonologically-dependent, prefixal property of the object marker \bar{a} - forces it to ‘lean’ onto the following word (see Harley & Noyer 2003:483f.), which is the coordinator *pie*.

5 Psych-verbs

The final context where we find the object marker in Tenyidie involves what would usually be translated as predicate adjectives in English. For example, the equivalents of ‘be happy’ (77a), ‘be jealous’ (77b) and ‘be tired’ (77c) all obligatorily have the object marker.

- (77) a. á *(ā-)nĩ bǎ
 1SG *(1SG.OBJ-)be.happy PROG
 ‘I am happy.’
 b. Kēví *(puō-)rò bǎ
 Kevi *(3SG.OBJ-)be.jealous PROG
 ‘Kevi is jealous.’
 c. nó *(ñ-)nyĩ bǎ
 1SG *(2SG.OBJ-)be.tired PROG
 ‘You are tired.’

While this may look like agreement on an adjective, it is not always the case that predicative adjectives lead to the object marker. The adjectives *ví* (‘good’), *zĩfuò* (‘ugly’) and *krǎ* (‘white’) are all incompatible with the relevant object marker (78).

- (78) a. Kēví (*puō-)ví bá
 Kevi (*3SG.OBJ-)be.good PROG
 ‘Kevi is good.’
 b. nó (*ñ-)zĩfuò sè
 2SG *(2SG.OBJ-)be.ugly EMPH
 ‘You are ugly.’
 c. á (*ā-)krǎ
 1SG *(1SG.OBJ-)be.white
 ‘I am white.’

Broadly speaking, the difference between the (77) and (78) is that the former correspond to psych verbs, i.e. predicates that describe a mental state or process. Thus, we will follow Giridhar (1980:55ff.) in assuming that the examples in (77) are actually verbs. The presence of the object marker would then make sense if we are dealing with inherently reflexive psych verbs of the kind found in German (e.g. Fanselow 1987, 1991; Schäfer 2008, 2012; Kallulli 2013) and Romance (e.g. Belletti & Rizzi 1988; Dobrovie-Sorin 2017). As (79) shows, certain psych predicates in German involve inherently-reflexive verbs with a genuine reflexive object (79).

- (79) a. Ich freue mich
 I please.1SG.PRES myself
 ‘I am happy’
 b. Er schämt sich
 he shame.3SG.PRES himself
 ‘He is ashamed.’

We propose that the cases in (77) should also be analyzed as inherently-reflexive psych verbs. However, this raises the question of why an overt reflexive is not possible in such examples (80).

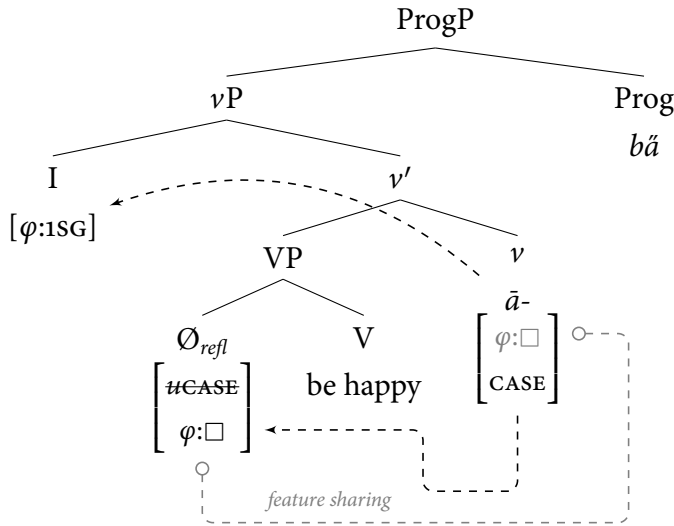
- (80) a. á (*ā-thuó) ā-ní bǎ
 1SG (*1SG-SELF) 1SG.OBJ-be.happy PROG
 ‘I am happy.’
 b. Kēví (*puō-thuó) puō-rò bǎ
 Keví (*3SG-SELF) 3SG.OBJ-be.jealous PROG
 ‘Kevi is jealous.’

We argue that a key component in this explanation goes back to the observation in (10) that, in many cases, the anaphoric object is optional (81).

- (81) á_i (ā-thuó_i) ā-tshē bǎ
 1SG.SBJ (1SG-SELF) 1SG.OBJ-praise PROG
 ‘I am praising myself.’

There are in principles two ways of account for this optionality: either there is some kind of object drop, or there is an optional null anaphor that can also function as the object. If we adopt the latter view, then there is both an overt *thuó*-reflexive and a deep anaphor \emptyset_{refl} in the sense of Hankamer & Sag (1976). What then makes inherently-reflexive psych verbs different from run-of-the-mill reflexives in Tenyidie is that psych verbs obligatorily select for \emptyset_{refl} . As (82) shows, since this anaphor still requires φ -features from its antecedent, we will still have the object marker on *v*.

- (82) á * (ā-)ní bǎ
 1SG *(1SG-)be.happy PROG
 ‘I am happy.’



The crucial difference is that \emptyset_{refl} will not receive any phonological realization, perhaps due to it lacking the typical reflexive root *thuó*.

6 Conclusion

This paper has investigated apparent agreement with anaphors in Tenyidie. We have argued that, rather than constituting genuine φ -agreement, the φ -covarying morphology that we find in these constructions is actually an overt reflex of anaphoric binding. In particular, the head responsible

for licensing an anaphor will obtain a shared instance of its φ -feature. This head can value both occurrences of this shared feature if it introduces another argument in its specifier. We have shown that this view can account for various facts about anaphora in Tenyidie, namely why this putative agreement is found only with anaphors (but not other arguments), its compatibility with different licensing heads, and various restrictions found with ditransitives.

The analysis also has some broader consequences for our understanding of anaphora. First, it lends support to theories of anaphoric binding involving φ -feature exchange under Agree (e.g. Reuland 2005; Kratzer 2009; Rooryck & Vanden Wyngaerd 2011). While Preminger (2019) has argued against such a position, the exceptional agreement we find in Tenyidie provides morphological evidence that φ -features are involved in this relation. Furthermore, it supports a ‘mediated’ approach to binding under Agree (Heinats 2006, 2009), where the exchange of φ -features does not take place directly between an anaphor and its antecedent, but is facilitated by a functional head.

Second, while it may look like a surface counterexample to the *Anaphor Agreement Effect*, on the present analysis, it is not. This is because we are not dealing with genuine agreement involving probes. Recently, Murugesan (2019) has provided an elegant account of variation with regard to the AAE. His generalization is that, if the agreeing head is merged before the antecedent, then the AAE holds since the anaphor will not yet have received its φ -feature values. Putative object agreement with anaphors in Tenyidie would be a challenge for this theory, however on the present analysis, this pattern simply falls outside the scope of the generalization.

To summarize, this investigation of anaphora in Tenyidie suggests that φ -covarying morphology may not always be agreement. Even if it can be shown to be an inflectional exponent, it may be realizing something other than a simple probe-goal relation. In this case, we argue that the object marker we find in local reflexivization contexts in Tenyidie reveals something deeper about the way anaphoric binding works in the language.

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