HYBRID ALIGNMENT IN LAKI AGREEMENT[*]

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Showing different ranges of complexity, the alignment pattern in Northwestern Iranian languages has been a topic of investigation in several studies (e.g., Haig 1998, 2008, Samvelian 2007, Karimi 2010, 2012, Moghaddam 2016, Bonami and Stump 2017, among others). Most of these languages have in common an inventory of *v*P second position clitics and verbal suffixes that encode subject agreement. This distinction in the alignment pattern is often ascribed in Iranian languages to a tense (present vs. past) and valence distinction (e.g. Karimi 2010, cf. Haig 2008). This study aims to account for the complex agreement alignment in Laki[1], an understudied Northwestern Iranian language.

1. Introduction

Laki shows a split ergative alignment. We argue that this split arises due to the presence of a single locus of Agreement on T in present and past intransitive clause, versus two loci of Agreement on T and *v* in past transitive clauses, with T showing a striking contrast in the realization of agreement with full DPs or strong pronouns, as opposed to deficient pronominal clitics. We show that in past intransitive or present clauses, T agrees with the subject (realized as verbal suffixes) and there is no further Agreement. In past transitive clauses, *v* Agrees with the subject (realized as clitics), leaving T available for further Agreement with an accessible argument. When there is no accessible argument (due to locality), the Agreement on T is realized as default $\varnothing$. We suggest that the accessibility of an argument for T agreement in past transitive clauses depends on a PF constraint banning the adjacency of two clitics. When in-situ realization of the clitic violates this PF constraint, this clitic raises to the edge of the phase becoming accessible to T and realized as T Agreement on the verb. Otherwise, it remains in-situ and does not become accessible for T Agreement.[2]

In Section 2, we examine facts that are involved in the alignment patterns. In particular, we cover subject agreement, as well as object and possessive pronominal marking. In Section 3, we propose an agreement account that distinguishes the deficient

(i)   ali yo maryam to-**nān** šenāsi-ya.
        Ali and Maryam you-3PL know-PERF
        'Ali and Maryam have known you.'

pronouns and full DPs or strong pronouns. We also introduce a PF constraint that bans the adjacency of clitics in a past transitive clause. Section 4 concludes the paper.

2. Alignment

2.1 Subject agreement pattern for present and past intransitive verbs

In this section, we describe the patterns of subject agreement as well as object marking. Table I displays all verbal suffixes that are involved in subject agreement. A present verb, regardless of its valence as shown (1-2) and a past intransitive verb as shown in (3-4) express subject agreement with suffixes in Table I[2]. The example in (4) shows that [3sg] subject agreement in the past tense is null.

Table I. Agreement suffixes

1SG	2SG	3SG	1PL	2PL	3PL
-(e)m	*-(i)n*	*-i/∅*	*-(i)men*	*-(i)nān*	*-(e)n*

(1) ali yo maryam to-na ma-šnās-**en**[I].
     Ali and Maryam you-SP DUR-know.PRS-3PL
     'Ali and Maryam know you.'

(2) ali-a   ma-šin-**i**[I]
    Ali-SP   DUR-sit.PRS-3SG
    'Ali is sitting.'

(3) (to) zu   č-**in**[I].
     you soon   go.PST-2SG
     'You left/went soon.'

(4) maryam **ništ-∅**[I].
    Maryam sit.PST-3SG
    'Maryam sat.'

2.2 Subject agreement pattern for past transitive verbs

A past transitive verb (5-6) expresses subject agreement with enclitics in Table II. These enclitics appear on the first constituent in the verb phrase, second position in the *v*P.[3] Second position clitics in the verb phrase have been attested elsewhere (see Kahnemuyipour and Megerdoomian 2011 for an Armenian auxiliary clitic and Karimi 2010, 2012, Bonami and Samvelian 2008, among others for subject agreement clitics in Kurdish varieties).

Table II. Agreement enclitics[4]

1SG	2SG	3SG	1PL	2PL	3PL
=(e)m	*=(e)t*	*n/a*	*=mān*	*=tān*	*=(ā)n*

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[2] We use Roman numeral superscripts to mark Table I affixes.

[3] In this paper, we do not attempt to provide an account for the positional distribution of the agreement enclitics. This is an interesting area of research we leave for future work.

[4] The subject agreement for [3sg] is an exception as it appears on the verb as a Table I suffix. We leave a closer examination of this distinction for future research.

(ii) ali maryam šenās-**i**[I]
     Ali Maryam know.PST-3SG
     'Ali knew Maryam.'

(5) sif-ela=**t**^{II} wārd[5].
apple-PL.DEF=2SG eat.PST
'You ate the apples.'

(6) ali yo maryam to=n**ān**^{II} šenāsi.
Ali and Maryam you=3PL know.PST
'Ali and Maryam knew you.'

Table II enclitics can also be used as pronominal clitics for direct objects or objects of prepositions. In (7), we see an example of a strong pronoun used as a direct object and (8) is its cliticized counterpart. A similar contrast is illustrated for prepositional objects in (9-10). (Note: Clitic doubling is not allowed in Laki.)

(7) (me) to-na ma-šnās-em^I.
I you-SP DUR-know.PRS-1SG
'I know you.'

(8) (me) ma-šnās-em^I=**et**^{II}.
I DUR-know.PRS-1SG=OBJ.2SG
'I know you (sg).'

(9) až owen-a ma-pers-em^I.
from them-SP DUR-ask.PRS-1SG
'I (will) ask them.'

(10) ažen=n**an**^{II}-a ma-pers-em^I.
from=3PL-SP DUR-ask.PRS-1SG
'I will ask them.'

2.3 Agreement alignment in the past tense: direct and prepositional objects

Recall from (5-6), that in past transitive clauses agreement with the subject is realized as a second *v*P enclitic (Table II). With full DP objects (5) and a full pronominal object (6) there is no further agreement on the verb. In (5-6) subject agreement is realized on the object (shown in bold). Meanwhile, when the object has no overt realization, the phi-features are realized as Table I suffixes on the verb, as shown in (11-12).

(11) di-(**e**)**n**^I=et^{II}.
see.PST-3PL=2SG
'You (sg) saw them.'

(12) di-**n**^I=**ān**^{II}.
see.PST-2SG=3PL
'They saw you (sg).'

As for the prepositional object, when there is a full DP (13) or a strong pronoun (14) there is no further agreement either (other than the 2P in *v*P subject agreement enclitic).

(13) vet=em^{II} aben maryam.
tell.PST=1SG to Maryam
'I told Maryam.'

(14) až owen=em^{II} persi.
from them=1SG ask.PST
'I asked them.'

When the prepositional object is not a full DP or a strong pronoun, a contrast arises between post-verbal and pre-verbal PPs; when the PP is pre-verbal (15a-16a), the phi-features of the prepositional object are realized as Table I suffixes on the verb. In (15a-16a), the subject agreement enclitic appears on the preposition (as the first element in the *v*P). The (b) and (c) examples in (15-16) show that other options are ungrammatical. In (15b-16b), the prepositional object is realized as a Table II enclitic on the preposition, adjacent to the subject agreement enclitic. In (15c-16c), the prepositional object is realized as a Table II enclitic on the preposition and the subject agreement enclitic is appearing on the verb.

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[5] We will later analyze these verbal forms as containing a default ∅ 3sg agreement.

(15) a.　aben=em^{II}　vet-**in**^I.
　　　 to=1SG　　tell.PST-2SG
　　　 'I told you (sg).'

(16) a.　ažen=em^{II} persi-(**i**)**n**^I.
　　　 from=1SG　ask.PST-2SG
　　　 'I asked you.'

b.　*aben=et^{II}=em^{II}　vet.
　　 to=2SG=1SG　　tell.PST
　　 intended: 'I told you (sg).'

b.　*ažen=et^{II}=em^{II}　persi.
　　 from=2SG=1SG ask.PST
　　 intended: 'I asked you.'

c.　*aben=et^{II}　vet=em^{II}.
　　 to=2SG　 tell.PST=1SG
　　 intended: 'I told you (sg).'

c.　*ažen=et^{II}　persi=m.
　　 from=2SG　ask.PST=1SG
　　 intended: 'I asked you.'

When the PP is pre-verbal but there is an additional direct object, the 2P subject agreement appears on the direct object and the prepositional object is realized as a Table II enclitic on the preposition (17-18).

(17) rāz-a=m^{II}　　　aben=**et**^{II} vet.
　　 secret-DEF=1SG to=2SG　 tell.PST
　　 'I told you (sg) the secret.'

(18) soāl-a=m^{II}　　　ažen=**et**^{II}　persi.
　　 question-DEF=1SG from=2SG　ask.PST
　　 'You (pl) asked me.'

When the PP is post-verbal (19a-20a), the phi-features of the prepositional object are realized as Table II enclitics on the preposition, with subject agreement realized as a Table II enclitic on the verb. The (b) and (c) examples in (19-20) show that other options are ungrammatical. In (19b-20b) we get prepositional object enclitic on the verb and the subject agreement enclitic on the preposition. In (19c-20c), we get the prepositional object realized as a Table I suffix on the verb and the subject agreement realized as a Table II enclitic on the preposition.

(19) a.　vet=m^{II}　　　aben=**et**^{II}.
　　　 tell.PST=1SG　to=2SG
　　　 'I told you (sg).'

(20) a.　persi=tān^{II}　　ažen=**em**^{II}.
　　　 ask.PST=2PL　　from=1SG
　　　 'You (pl) asked me.'

b.　*vet=et^{II}　　　aben=em^{II}.
　　 tell.PST=2SG　to=1SG
　　 intended: 'I told you (sg).'

b.　*persi=m^{II}　　ažen=tān^{II}.
　　 ask.PST=1SG from=2PL
　　 intended: 'You (pl) asked me.'

c.　*vet-in^I　　　aben=em^{II}.
　　 tell.PST-2SG　to=1SG
　　 intended: 'I told you (sg).'

c.　*persi-m^I　　 ažen=tān^{II}.
　　 ask.PST-1SG　from=2PL
　　 intended: 'You (pl) asked me.'

2.4 Agreement alignment in the context of possessives

In this subsection, we look at the interaction between agreement and possessive construction. With a full DP possessor in the object position (21) or a full pronominal possessor (22), there is no further verbal inflection, regardless of the tense. The only agreement found in this context is the subject agreement.

(21) to   sag maryam-a   m-own-in^{I}.
     you dog Maryam-SP DUR-see.PRS-2SG
     'You (will) see Maryam's dog.'

(22) to   sag men=et^{II} di.
     you dog my=2SG   see.PST
     'You saw my dog.'

When the possessor is not a full DP or a strong pronoun, the possessor's phi-features are realized as Table II enclitics on the possessed NP in the present tense. We see an example of a possessive construction in object and subject positions in (23) and (24), respectively. Agreement is with the subject, realized on the verb as a Table I suffix.

(23) homa   sag-a=**m**^{II} m-own-inān^{I}.
     you(pl)   dog-DEF=POSS.1SG   DUR-see.PRS-2PL
     'You (pl) see my dog.'

(24) rafix-ela=(**a**)**n**^{II} men-a   ma-šnās-en^{I}.
     friend-PL.DEF=POSS.3PL   me-SP   DUR-know.PRS-3PL
     'Their friends know me.'

In a past transitive clause, when the possessor is a deficient pronoun, there is variation depending on the grammatical function of the possessive noun phrase. If the possessive noun phrase is the subject of the clause, the possessor pronoun is invariably realized as a Table II enclitic, and subject agreement is expressed on the first element in the *v*P as a Table II enclitic.

(25) rafix-ela=(**e**)**t**^{II} men=nān^{II} šenās-i.
     friend-PL.DEF=POSS.2SG   me=3PL   know-PST
     'Your (sg) friends knew me.'

If the possessive noun phrase is the object of a transitive clause, the possessor pronoun is realized as a Table I suffix on the verb (shown in bold). Meanwhile, the subject agreement enclitic appears as 2P in *v*P, here on the possessum (26a, 27a). The b and c examples in (26-27) show that the other options are ungrammatical. (26b, 27b) show both possessor and subject agreement being realized as a Table II enclitic on the possessum, while in (26c, 27c) the possessor pronoun is expressed with the Table II enclitic on the possessum and the subject agreement enclitic appears on the verb.

(26) a.   to no sārā sag-a=tān^{II} di-**m**^{I}.
        you and Sara dog-DEF=2PL   see.PST-POSS.1SG
        'You and Sara saw my dog.'

     b.   *to no sārā sag-a=m^{II}=tān^{II} di.
        you and Sara dog-DEF=POSS.1SG=2PL see.PST
        intended: 'You and Sara saw my dog.'

     c.   *to no sārā sag-a=m^{II} di=tān^{II}.
        you and Sara dog-DEF=POSS.1SG see.PST=2PL
        intended: 'You and Sara saw my dog.

(27) a. keyk-a=mān^{II} wārd-**en**^{I}.
      cake-DEF=1PL eat.PST-POSS.3PL
      'We ate their cake.'

    b. *keyk-a=n=mān^{II} wārd.
      cake-DEF=POSS.3PL=1PL eat.PST-
      intended: 'We ate their cake.'

    c. *keyk-a=n^{II} wārd=mān^{II}.
      cake-DEF=POSS.3PL eat.PST=1PL
      intended: 'We ate their cake.'

2.5 Schematic summary of the above agreement patterns

We take strong pronouns to have a larger structure than deficient pronouns (Cardinaletti and Starke 1994, and subsequent authors). We will use DP for the former and φP/φ (which is just a bundle of features) for the latter. (Underlining tracks subject agreement.)

(28) Past Intransitive and Present
    a. Full DP / Strong Pronoun   DP$_{subj}$ DP$_{obj}$ V-Tab. I
    b. Deficient Pronoun   DP$_{subj}$ **φP/φ$_{obj}$**   V-Tab. I=**Tab. II**

(29) Past Transitive
    Direct object:
    a. Full DP / Strong Pronoun   DP$_{subj}$ DP$_{obj}$=Tab. II   V
    b. Deficient Pronoun   DP$_{subj}$ **φP/φ$_{obj}$**   V-**Tab. I**=Tab. II

    Prepositional object (post-verbal):
    c. Full DP / Strong Pronoun   DP$_{subj}$ V=Tab. II   [P   DP]
    d. Deficient Pronoun   DP$_{subj}$ V=Tab. II   [P=**Tab. II**   φP/φ]

    Prepositional object (pre-verbal):
    e. Full DP / Strong Pronoun   DP$_{subj}$ [P   DP]=Tab. II   V
    f. Deficient Pronoun   DP$_{subj}$ [P=Tab. II   φP/φ]   V-**Tab. I**

    Prepositional object (pre-verbal, additional object)
    g. Full DP / Strong Pronoun   DP$_{subj}$ DP$_{obj}$=Tab. II [P   DP]   V
    h. Deficient Pronoun   DP$_{subj}$ DP$_{obj}$=Tab. II [P=**Tab. II**   φP/φ] V

(30) Possessive DPs (Past tense)
    Subject position:
    a. Full DP / Strong Pronoun [Possessum   DP$_{Poss'r}$]$_{subj}$ DP$_{obj}$=Tab. II   V
    b. Deficient Pronoun   [Possessum=**Tab. II** φP/φ $_{Poss'r}$]$_{subj}$ DP$_{obj}$=Tab. II   V

    Object position:
    c. Full DP / Strong Pronoun DP$_{subj}$ [Possessum DP$_{Poss'r}$]$_{obj}$=Tab. II   V

d. Deficient Pronoun   <u>DP</u>subj   [Possessum=<u>Tab. II</u> **φP/φ** Poss'r]obj   V-**Tab.**

3. Analysis

Laki agreement follows a split-ergative alignment system. As mentioned above, in some works in similar Iranian languages the split has been characterized as depending on tense (e.g. Karimi 2010, Samvelian 2007, among others) (but see footnote 2). As shown in (28) and several examples above, in present and past intransitive clauses, subject agreement can be explained straightforwardly via Agree between T and the subject, realized as the suffixes in Table I. This is an accusative alignment with only T being a locus of Agreement. (33) illustrates the Agreement in present and past intransitive clauses such as (1) and (3), repeated below in (31-32). In these examples, T Agrees with the subject of the clause. As a result of this Agreement, the subject's phi-features are realized as the Table I suffixes on the verb.

(31) ali yo   maryam to-na   ma-šnās-**en**[I].
     Ali and Maryam   you-SP DUR-know.PRS-3PL
     'Ali and Maryam know you.'

(32) (to) zu   č-**in**[I].
      you   soon go.PST-2SG
     'You lef/went soon.'

(33)
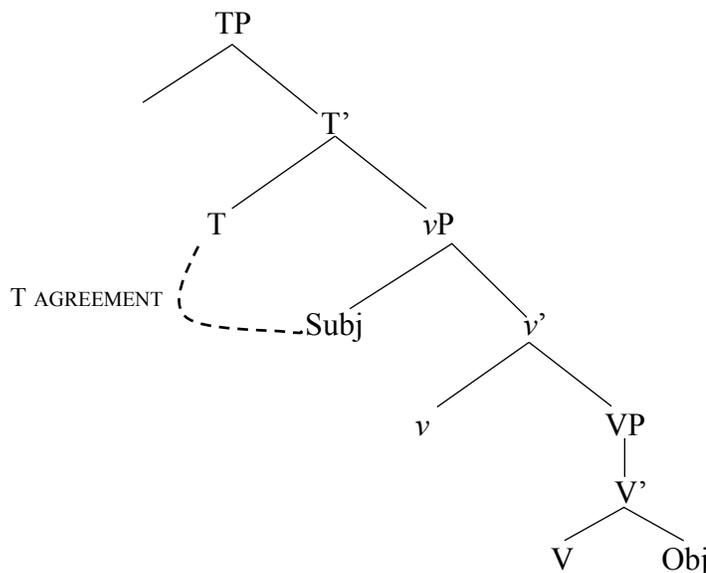
     We posit that in past transitive clauses, there are two loci of agreement, one on T and the other on *v* (see Legate 2002, 2008, Aldridge 2008 and references therein). The *v* head Agrees with the external argument, realized morphologically as the Table II enclitics. That leaves T available for further Agreement with another argument. With a full DP or a strong pronominal object (29a), prepositional object (29c, e, g), or a possessive DP (30a, c), we see *v* Agreement with the subject realized as a Table II enclitic on the object but no Agreement between T and the direct object, prepositional object or possessive DP. This is the pattern that we have seen in several examples (5-6, 13-14, 22), some of them are repeated below in (34-36). We take the absence of an Agree relation with a full DP (prepositional) object/possessor or strong pronoun to be a locality issue, with T and the

(prepositional) object/possessor being in different phases (Chomsky's 2001 PIC), leading to a default realization of the phi-features on T as $\varnothing$ (3sg). (37) illustrates the derivation of examples (34-36). In these examples, the only inflection we get is for the subject agreement which is realized as a Table II enclitic on the object.

(34) sif-ela=**t**^{II} wārd.
      apple-PL.DEF=2SG   eat.PST
      'You ate the apples.'

(35) až   owen=em^{II} persi.
      from   them=1SG   ask.PST
      'I asked them.'

(36) to   sag   men=et^{II} di.
      you dog   my=2SG   see.PST
      'You saw my dog.'

(37)
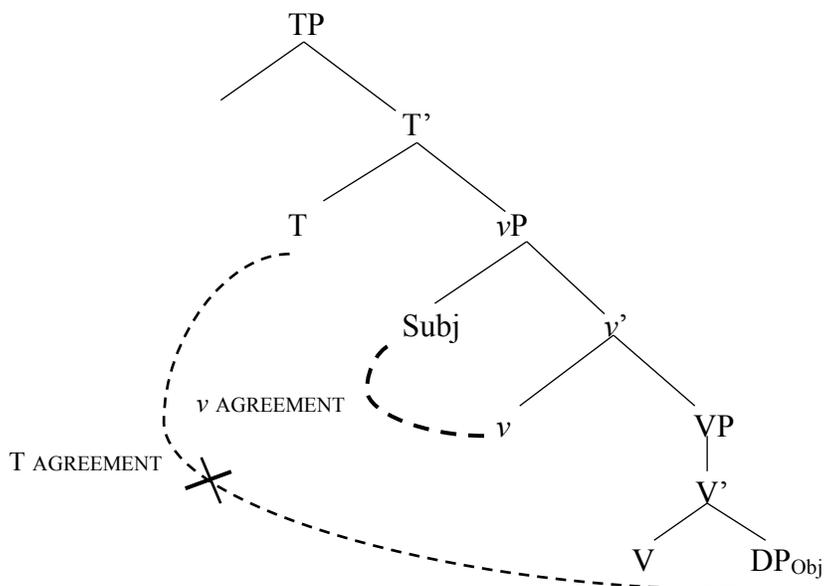
We now turn to the context of the past transitive clause with a deficient pronominal direct object (29b), a deficient prepositional object in a preverbal position (29f) or a deficient possessive construction in the object position (30d) and as in examples (11-12, 15a-16a, 26a-27a). In these examples, we get the expected Table II enclitic expressing subject agreement, but in addition we find a Table I suffix on the verb. We propose that this pattern is the result of an Agree relation between T and φP/φ. Examples (11), (15a) and (26a) are repeated below in (38-40).

(38) di-(**e)n**^{I}=et^{II}.
      see.PST-3PL=2SG
      'You (sg) saw them.'

(39) aben=em^{II} vet-**in**^{I}.
      to=1SG   tell.PST-2SG
      'I told you (sg).'

(40) to   no   sārā   saga=tān^{II} di-**m**^{I}.
      you and Sara dog=2PL   see.PST-POSS.1SG
      'You and Sara saw my dog.'

This raises the question of why Agreement with T becomes available in this context? In other words, how are the phi-features accessible to T here? This pattern is reminiscent of the complementarity between strong pronouns (or full DPs) and subject agreement in Celtic languages (see, for example, Jouitteau and Rezac 2006 for Breton and McCloskey and Hale 1984 for Irish).[6] It is important to note that in Laki, the phi-features of the deficient pronoun are clearly realized as agreement suffixes, because these are the same forms found in run-of-the-mill nominative subject agreement in the present tense. This provides support for an Agree account of these markers.

Furthermore, importantly, in Laki, this complementarity does not hold fully. While Table I agreement is always absent with full DPs or strong pronouns, deficient pronouns do not always lead to Table 1 agreement, as we can see in (29d, h), (30b) and examples (17-18, 19a-20a) and (25). Some of these examples are repeated below in (41-43).

(41) rāz-a=m^{II} aben=**et**^{II} vet.
     secret-DEF=1SG to=2SG   tell.PST
     'I told you (sg) the secret.'

(42) vet=m^{II} aben=**et**^{II}.
     tell.PST=1SG   to=2SG
     'I told you (sg).'

(43) rafix-ela=(**e**)**t**^{II} men=nān^{II} šenāsi.
     friend-PL.DEF=POSS.2SG   me=3PL   know.PST
     'Your (sg) friends knew me.'

In (41), we have a pre-verbal preposition and a direct object full DP. The direct object hosts the Table II subject agreement enclitic and the preposition hosts the prepositional object deficient pronoun (=**et**). In (42), the preposition is post-verbal and it hosts the prepositional object deficient pronoun (=**et**). Here, the verb hosts the Table II subject agreement enclitic. In (43), we have a past transitive clause containing a possessive construction. The possessive construction is the subject of the clause and we get the possessor deficient pronoun on the possessum. Meanwhile, we get the subject agreement enclitic on the object full DP. Crucially, in all these examples is that the deficient pronouns are realized as Table II enclitics. The generalization that seems to arise in this regard is the following condition:

(44) Deficient pronouns cannot be realized on an element which already hosts a Table II enclitic: *X-Table II-Table II.

We propose that in contexts where a deficient pronoun is competing for the same host with the Table II subject agreement enclitic, the phi-bundle cannot be realized on that host and instead moves to the edge of *v*P, becoming accessible to T for Agreement. As a result of this Agree relation between T and φP/φ, we see a Table I suffix being realized on the verb, similarly to the straightforward subject agreement between T and the subject in past intransitive and present tense sentences.

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[6] There is a debate in the literature about the preferred account for this complementarity. Some view it as a case of incorporation of the deficient pronoun into the verb (Anderson 1982, Doron 1988, Ackema and Neeleman 2003) and others take it to be the result of Agreement (McCloskey and Hale 1984, Stump 1984, Legate 1999) between T and the deficient pronoun and seek an explanation for why this Agree relation is absent with full DPs or strong pronouns.

Accordingly, if a different host becomes available for the realization of the deficient pronoun in the *v*P domain, the competition does not arise, and the deficient pronoun is realized on this other host as a Table II enclitic, as expected. Such cases arose above in the context of a post-verbal PP (29d, 42), preverbal PP with an additional object that hosts the subject agreement enclitic (29h, 41) and a possessive construction used as the subject of the clause, where the object hosts the subject agreement enclitic and the deficient possessive pronoun is realized on the possessor (30b, 43). (45) shows the Agreement in a past transitive clause that contains a subject agreement enclitic and a deficient pronoun that undergoes movement to the edge of the *v*P under the condition in (44), hence becoming accessible for T agreement.

(45)
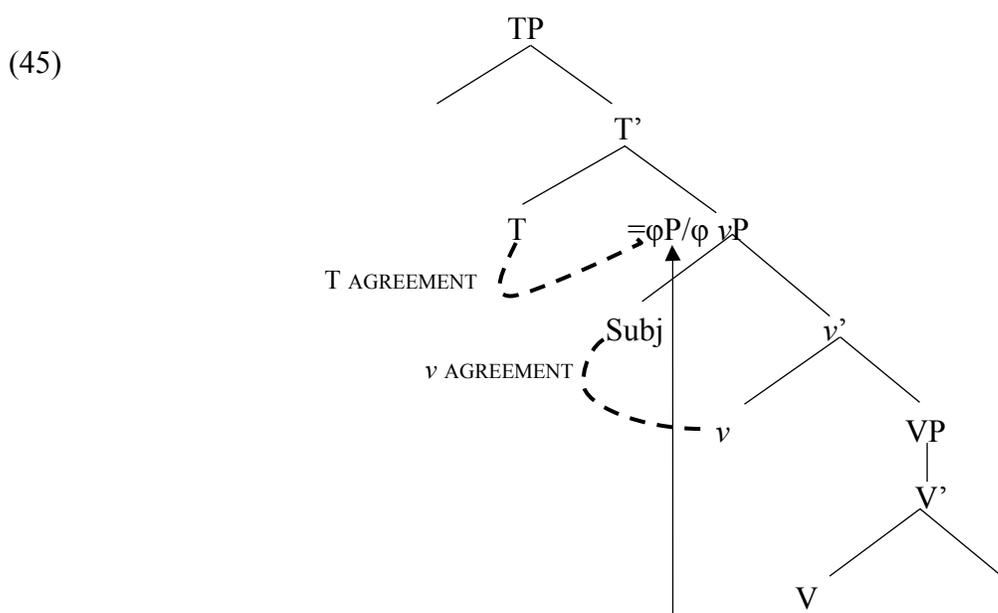
The facts and analysis provided in this paper raise an interesting interface question with respect to how we can have a syntactic resolution to an apparently PF problem. This largely depends on how one analyzes second position clisis, an issue we will not try to resolve here. Crucially, we should either take second position clisis to take place in syntax or as an early PF phenomenon, i.e., before spell-out or vocabulary insertion. Thus, once the deficient pronoun is found in an illicit position, it can be taken to move to the edge of the phase and escape spell-out.

4. Conclusion

We have investigated agreement alignment in Laki and have accounted for the complex distribution of suffixes and enclitics realizing phi-features in the language with some reasonable assumptions and proposals.

Laki shows a split ergative alignment. In the past intransitive and present tense sentences, there is only a single locus of Agreement, T, which exhibits straightforward

nominative agreement with the subject realized as a Table I suffix. In the past transitive clauses, there are two loci of Agreement: *v* and T. *v* establishes an Agree relation with the subject, realized as a Table II enclitic on the first element in *v*P (2P in *v*P). T is available for further agreement. In the context of full DPs and strong pronoun, T cannot establish an Agree relation due to locality and is instead realized as a default 3sg ∅.

With deficient pronouns, a division arises. When the deficient pronoun has a host that is different from the one which hosts the subject agreement enclitic, each of them is realized as a Table II enclitic on its distinct host. When the deficient pronoun competes for the same host with the subject agreement enclitic, it moves to the edge of the phase, becoming accessible for Agreement with T, leading to the realization of its phi-features on the verb as a Table I suffix.

The exact mechanism for the realization of the various suffixes and enclitics in the right positions and the interaction between syntax and PF leading to the above distribution requires further elaboration. In future, we will expand our data coverage to consider contexts involving complex predicates as well as other ditransitive cases to have a better understanding of cases where the enclitics compete for the same host and the conditions under which both enclitics can be accommodated. We will also expand our investigation to other Kurdish languages such as Sorani or Kurmanji which show differences with Laki with respect to the distribution of the pronominal/agreement suffixes and enclitics.

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