

# DEFINITENESS IN LAKI\*

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Within a cross-linguistic observation, definite marking has shown different sorts of non-canonicity such as double definiteness, multiple definite marking (i.e., polydefiniteness), among others. This paper investigates definiteness and its interaction with number in an understudied Northwestern Iranian language, Laki.<sup>1</sup> The definite marking in Laki follows a double definite pattern. I argue that despite surface similarities, Laki double definiteness should be characterized differently from the double definiteness attested in Scandinavian languages. I present an Agreement proposal (Chomsky 2000, 2001) to account for Laki double definiteness and I provide a head movement analysis for the interaction of number and definiteness. The investigation of Laki double definiteness, with its convergence and divergence from the prototypical Scandinavian pattern, contributes to our cross-linguistic understanding of definiteness and it sheds light on the contribution of definiteness to the DP structure.

## 1. Introduction

From a cross-linguistic perspective, definite marking has shown a great deal of variation with different phenomena such as double definiteness (Scandinavian; Faroese, Norwegian and Swedish), polydefiniteness (modern Greek, modern Hebrew), unfixed pattern of definite distribution (Amharic), the restriction on the use of the prenominal definite article (Nordic languages), among others. Here, I examine definite marking in Laki showing an instance of double definiteness. The goal of this study is not limited to the investigation of double definiteness. Here, I also examine the interaction of number and definiteness. The proposed accounts can be extended to account for similar phenomena in sister Kurdish varieties (i.e., Sorani and Kermanshahi Kurdish). In section 2, I discuss general facts involved in definite and number marking. Section 3 examines possible approaches to similar phenomena in other languages. I discuss the analysis of *Ezafe* in Sorani Kurdish, and double definiteness in Scandinavian. Given the empirical differences, I argue that neither of such analyses can totally capture Laki facts. In section 4, I propose an Agreement account (Chomsky 1995, 2000, 2001) for the pattern of definite marking. In section 5, providing

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\*I would like to thank Arsalan Kahnemuyipour, Susana Bejar and Nicholas LaCara, for their constructive advice on my work; Koorosh Ariyae, Mahdieh Ghobadifard and Sadaf Kalami for their support and help with the data; the audience of the 2019 CLA Annual meeting for their insightful feedback. All errors are mine.

1. The data in this paper is based on the variety of Laki which is spoken in the city of Kuhdasht in the western part of the Lorestan province of Iran (Taghipour 2017). Following a number of previous studies, I consider Laki to be a variety of southern Kurdish.

evidence from similar Iranian languages, I examine number marking and its interaction with definiteness. I propose a head movement analysis to account for number marking. Section 6 concludes the paper.

## 2. Overview of definite and indefinite marking

### 2.1 Definite versus indefinite

Nouns in Laki inflect for definite and indefinite features with the phrasal affix *-a* and *-i* respectively. Examples (1a)-(1b) illustrate the definite inflection on a singular and a plural noun. Examples (2a)-(2b) show the indefinite inflection on a singular and a plural noun.

- |     |    |                                   |    |   |
|-----|----|-----------------------------------|----|---|
| (1) | a. | ketew-a<br>book-DEF<br>'the book' | b. | ketew-el-a<br>book-PL-DEF<br>'the books'    |
| (2) | a. | ketew-i<br>book-INDEF<br>'a book' | b. | ketew-al-i<br>book-PL-INDEF<br>'some books' |

When a definite noun is modified, Laki allows double definite marking: one definite marker appears on the noun (henceforth DP internal definite marker) and another one appears on the modifier (henceforth DP final definite marker), as in (3).

- (3) māl-a kalen-a  
house-DEF big-DEF  
'the big house'

The first definite marker has to appear on the noun. When there is more than one modifier, the second definite marker has to appear on the last modifier. In (4), the first definite marker appears on the noun, and the second definite marker is expressed on the last modifier. In (5), the expression of the second definite marker on the first modifier *kalen* makes the DP unacceptable. In (6), the expression of the first definite marker on the first modifier, and not on the noun, makes it unacceptable. Example (7) is at best marginally acceptable due to the lack of definite expression on the noun. Example (8) is unacceptable due to the multiple occurrences of definiteness. I am assuming that these two affixes both are marking definiteness and will account for this distribution in Section 4.

- |     |   |     |  |
|-----|---|-----|--|
| (4) | māl-a kalen sefid-a<br>house-DEF big white-DEF<br>'the big white house' | (5) | * māl-a kalen-a sefid<br>house-DEF big-DEF white |
| (6) | * māl kalen-a sefid-a<br>house big-DEF white-DEF                        | (7) | ? māl kalen sefid-a<br>house big white-DEF       |

- (8) \* māl-a kalen-a sefid-a  
house-DEF big-DEF white-DEF

When an indefinite noun is modified, the indefinite marker does not get double expression. The indefinite marker appears at the right edge of the noun phrase, illustrated in (9a) and (9b).

- (9) a. māl kalen-i  
house big-INDEF  
'a big house'
- b. \* māl-i kalen-i  
house-INDEF big-INDEF

Although the DP final definite marker and the indefinite marker seem to occupy the same position within the DP, the DP stress assignment treats these two elements differently. The indefinite marker does not receive stress. By contrast, the primary stress of the DP falls on the definite marker. The stressed syllables are bold in the following examples.

- (10) **māl** kalen sefid-i  
house big white-INDEF  
'a big white house'
- (11) **māl**-a kalen sefid-**a**  
house-DEF big white-DEF  
'the big white house'

The other difference between the DP final definite marker and the indefinite marker is manifested in the ordering of the plural marker. In the modified indefinite noun phrase as in (12), the plural marker appears on the noun. In the modified definite noun phrase as in (13), the plural marker appears on the modifier, and not on the noun.

- (12) kor-al bālābarz-i  
boy-PL tall-INDEF  
'some tall boys'
- (13) kor-a bālābarz-el-a  
boy-DEF tall-PL-DEF  
'the tall boys'

In Section 5, I will return to this pattern and discuss definiteness and its interaction with number in more detail.<sup>2</sup>

## 2.2 Definiteness

As observed in examples (3)-(4), (11) and (13), there are two definite expressions in a modified definite DP: one definite marker appears on the noun and another one appears on the (last) modifier. I argue that the two suffixes both are related to the definiteness of the DP, and hence they have to be considered as definite markers. However, these two definite markers are different in two respects.

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2. The structural characterization of indefinite marker is not the concern of the present study. Following Abney (1987), Szabolcsi (1994) and subsequent authors, Laki definite and indefinite markers can be taken as different realizations of a single D head. Under this assumption, the difference in the stress assignment pattern and the placement of number can be explained by independent prosodic principles and featural properties respectively (see Ghomeshi 2003 for the QP versus DP analysis of indefinite and definite markers in Persian).

### 2.2.1 Stress assignment

The stress pattern in these two definite markers is different; the DP internal definite marker is unstressed. By contrast, the DP final one that appears on the (last) modifier receives the primary stress of the DP. The DP final definite marker is bold to highlight the contrast in the following examples.

- (14) a. māl-a kalen-**a**  
house-DEF big-DEF  
'the big white house'
- b. \*māl-**a** kalen-a  
house-INDEF big-INDEF

One might argue that the difference in the stress assignment is conditioned by independent phonological principles, thus it cannot be an indication of a morphosyntactic difference between these two elements. This possibility cannot be ruled out immediately. However, by further evidence; i. e., the sensitivity to the number of syllables (shown below) and cross-linguistic comparison, I will argue that having different properties, these two definite elements should be treated differently. For now, I assume that the different stress pattern is at least an indication of a possible distinction between these two elements.

### 2.2.2 The sensitivity to the number of syllables

The second difference between these two definite elements is in the presence/absence of sensitivity to the number of the syllables of their host. The DP internal definite marker is sensitive to the number of syllables of its nominal host, whereas its DP final counterpart does not show such sensitivity. Examples (15a) and (15b) show that the definite markers both appear on their host; i.e. noun and the (last) modifier respectively. Examples (16a) and (16b) show that the DP internal definite marker does not appear on a multisyllabic noun. Example (16c) shows that the DP final definite marker is obligatory and insensitive to the number of the syllables of its host.

- (15) a. māl-a kalen-**a**  
house-DEF big-DEF  
'the big white house'
- b. māl-a kalen sefid-**a**  
house-DEF big white-DEF  
'the big white house'
- (16) a. ketew zwānšenāsiy-**a**  
book linguistics-DEF  
'the linguistics book'
- b. \*ketew-a zwānšenāsiy-**a**  
book-DEF linguistics-DEF
- c. \*ketew-a zwānšenās  
book-DEF linguistics

Based on the data presented above, we can conclude that while the DP internal definite marker seems to be sensitive to the number of the syllables of its host, the DP final one does not have such sensitivity and its absence leads to the ill-formedness of the DP.

In a bare definite DP, we only see the presence of one definite marker. Taking the syllable sensitivity and stress assignment into consideration, one can conclude that it is the

DP final definite marker that appears on the noun and not the the internal one by the fact that the definite marker is stressed and it is appearing on the noun regardless of the number of the syllables. Examples (17)-(18) illustrate.

- |      |   |      |   |
|------|---|------|---|
| (17) | ketew- <b>a</b><br>book-DEF<br>'the book' | (18) | zwānšenās- <b>a</b><br>linguist-DEF<br>'the linguist' |
|------|---|------|---|

Based on the difference in the syllable sensitivity and the stress assignment, it seems a valid assumption to consider the DP final definite marker to be a different element than the internal one. With respect to considering the definite marker in bare definite DPs as the DP final definite marker, a cross-linguistic comparison with another variety of Southern Kurdish provides supportive evidence. In Kermanshahi Kurdish, the definiteness of the DP is marked with the the DP final marker *-aga* (as in 19a). When a definite noun is modified (19b), the definite suffix appears phrase finally, and another definite marker appears on the noun. This pattern is identical to the pattern observed in Laki. Crucially, the form of the DP final definite marker is different from the DP internal one, showing clearly that in the bare context, we see the realization of the DP final definite marker.

- |      |    |   |    |  |
|------|----|---|----|--|
| (19) | a. | kor- <b>aga</b><br>boy-DEF<br>'the boy' | b. | kor- <b>a</b> irāniy- <b>aga</b><br>boy-DEF Iranian-DEF<br>'the Iranian boy' |
|------|----|---|----|--|

These facts provide support for three claims; *first*, the *-a* appearing on a bare noun in Laki is a definite marker which is distinct from the DP internal *-a*, *second*, it is the DP final definite marker that is the realization of D given the fact that its realization is independent from the modification of the DP, and *third*, the DP internal *-a*, is an element that is required to appear whenever definiteness is expressed phrase finally in a modified definite DP.

Before moving to the next section, it is worth noting that the definite feature associated with definite DPs observed in examples above, is an anaphoric definite feature. The definite DPs in examples above, all refer to an entity that is known to the speaker and hearer, or they refer to an entity that has been mentioned earlier in the context of the discourse. Therefore, the definite feature involved in patterns discussed here, is uniformly anaphoric.<sup>3</sup>

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3. A wider range of data showing the pattern of demonstratives, provides evidence that the association of the observed definite pattern (i.e., double definite marking) to the anaphoricity is a valid claim. The two demonstratives in Laki (i.e., 'this' *i* and 'that' *a*) both have a deictic reference in that they both refer to objects that are physically present. Of these two demonstratives, however, it is only the demonstrative 'that' (*a*) which can also have an anaphoric reference. Crucially, when the demonstrative 'that' has the anaphoric reference, it yields the double definite pattern. In (1), the demonstrative *a* 'that' is used in its deictic sense and we do not see the double definiteness. In (2), the demonstrative *a* 'that' is used in its anaphoric sense, and the double definite marking is obtained. By contrast, the demonstrative *i* 'this' can only be used in a deictic sense. Importantly, with the demonstrative 'this', the double definiteness is not obtained, as shown in (3-4).

### 3. Possible approaches

In this section, I examine definiteness more closely. To this end, I examine similar phenomena in other languages that may look similar to the Laki double definite pattern at first glance. In particular, I examine the Ezafe construction in Sorani Kurdish and double definiteness in Scandinavian. I argue that such patterns do not fully overlap with the pattern observed in Laki. As such, the accounts for such patterns cannot capture Laki facts.

#### 3.1 Ezafe in Sorani Kurdish

In many Iranian languages, nominal heads are linked to their modifiers or possessors by a linking element known as “Ezafe”; see Samiiian (1994), Ghomeshi (1997), Larson and Yamakido (2008), Karimi (2007), Samvelian (2007), Karimi and Brame (2012), Kahnemuyipour (2014), Toosarvandani and van Urk (2014), Salehi (2018), among others. The following examples are from Persian and Sorani Kurdish respectively. The Sorani data is borrowed from Karimi (2007: 2).

- |      |  |      |   |
|------|--|------|---|
| (20) | xune <b>ye</b> qadimi<br>house EZ old<br>‘old house’ | (21) | ketāb <b>e</b> sārā ( <b>Persian</b> )<br>book EZ Sara<br>‘Sara’s book’ |
| (22) | kteb- <b>i</b> sur<br>book-EZ red<br>‘(a) red book’  | (23) | kteb- <b>i</b> Hiwā ( <b>Sorani</b> )<br>book-EZ Hiwa<br>‘Hiwa’s book’  |

In light of the expression of Ezafe in sister languages like Sorani Kurdish, one might argue that the DP final definite marker in a Laki definite modified DP is a definite marker, and the DP internal one is Ezafe that shows concord/agreement with the definite marker. Karimi (2007) argues along these lines for Sorani Ezafe construction. In Sorani Kurdish, as already seen in examples above, Ezafe is marked with *-i* between a noun and its modifiers. Definiteness in Sorani Kurdish is realized with the affix *-aka*. Crucially, in the context of the definite marker, the Ezafe appears as *a*, as shown in (24).

- (24) kteb-a sur-a gawra-(a)ka  
book-EZ red-EZ big-EZ

- 
- |     |  |     |   |
|-----|--|-----|---|
| (1) | a det irāniy-a<br>that girl Iranian-DEF<br>‘that Iranian girl’ | (2) | a det-a irāni-a<br>that girl-DEF Iranian-DEF<br>‘that Iranian girl’ |
| (3) | i det irāniy-a<br>this girl Iranian-DEF<br>‘this Iranian girl’ | (4) | * i det-a irāni-a   |

For further discussion on the obligatory appearance of the DP final definite marker in the context of demonstratives, see Taghipour (2019).

‘(a) big red book’

*Sorani*; Karimi (2007: 11)

Karimi suggests a number of steps for the derivation of DPs having the Ezafe construction. I put aside the details of this examination. What is crucial in this analysis is that Ezafe has been claimed to undergo an alternation whenever it falls within the scope of the definiteness marker *-aka*. Hence, it changes from *-i* to *-a*.

Along these lines regarding the Laki data, one might assume that similar to Sorani Kurdish, the *-a* between the noun and the modifier (i.e., DP internal definite marker) is Ezafe which has undergone phonological harmony (or an Agreement) with the definite marker which is *-a*. However, a wider range of Laki data in the nominal domain reveals differences with respect to the existence of Ezafe and the function of definiteness in Laki compared to Sorani. There are two main differences between Laki and Sorani which excludes the possibility of taking the *-a* suffix between the noun and the modifier as a linking element: i.e., Laki lacks Ezafe in its nominals and the occurrence of *-a* is not iterative.

As shown in (25)-(26), Laki lacks Ezafe in its nominals (i.e., between the nominal head and its (adjectival) modifier and possessor).

- |      |   |      |  |
|------|---|------|--|
| (25) | ketew zewānšenāsi<br>book linguistics<br>‘a linguistics book’ | (26) | ketew sārā<br>book Sara<br>‘Sara’s book’ |
|------|---|------|--|

The second property (i.e., non-iterative nature of *-a*) is highlighted when we compare a modified definite DP having more than one modifier. In a modified Sorani DP, as shown in (24) above, repeated below in (27), Ezafe is iterative. In other words, per each modifier we see one Ezafe in Sorani. But in a modified Laki DP with more than one modifier, excluding the DP final definite marker, there is only one *-a* which appears on the noun. As such, the first modifier lacks *-a*, as shown in (28). A similar fact has also been presented above in (4)-(8). The iterative nature of Ezafe is not a particular property of Ezafe only in Sorani Kurdish. This property is invariably observed across Iranian languages as a property displaying the Ezafe construction.

- |      |   |      |   |
|------|---|------|---|
| (27) | kteb-a sur-a gawra-(a) ka<br>book-EZ red-EZ big-DEF<br>‘(a) big red book’ | (28) | māl-a kalen sefid-a<br>house-DEF big white-DEF<br>‘the big white house’ |
|------|---|------|---|

### 3.2 Double definiteness in Scandinavian

To a large extent, the definiteness pattern in Laki seems to be similar to the pattern of Scandinavian double definiteness. From now on, by Scandinavian, I mean Swedish, Norwegian and Faroese. These languages show an identical definite marking pattern. In Scandinavian, in bare definite DPs (i.e., a DP without a modifier), a definite suffix appears on the noun, as in the Norwegian example below. When the definite noun is modified, as in (29b), definiteness is realized with both a definite suffix on the noun and with a definite determiner.

- (29) a. Hus-e  
house-the.NEU  
'the house'
- b. **Det** gaml-e hus-e  
the.NEU old-WE house-the.NEU  
'the old house'

*Norwegian; Anderssen (2007: 252)*

Let us consider the similarity between Scandinavian and Laki in their definite marking. The similarity is that in both languages in a bare definite DP, definiteness is marked once on the noun. Under modification in both languages, definiteness gets doubled. However, the pattern involved in Laki definite marking is different from that of Scandinavian in one crucial way: In Laki, we see the realization of D in two contexts: once in a bare definite DP and once in a modified definite DP. As examined above, the stress pattern, syllable sensitivity and the cross-linguistic comparison all suggest that in Laki bare definite DPs, we get the DP final definite marker. The DP final definite marker, and not the DP internal one, was argued to be the realization of D. By contrast, in Scandinavian, we get the realization of D only in modified definite DPs (29b). In bare definite DPs, we get the definite suffix (29a). Crucially, in the majority of approaches to Scandinavian double definiteness, the determiner, and not the definite suffix, has been taken as the realization of D (see Santelmann (1992, 1993), Delsing (1993), Embick and Noyer (2001), Julien (2003), LaCara (2011), among many others).

The fact that in Scandinavian, different from Laki, the realization of D is limited only to modified definite DPs has motivated the main spirit in several analyses of Scandinavian double definiteness that in bare definite DPs, the (definite) noun undergoes movement to the empty D position or to the specifier of the DP. This movement is assumed to occur for the satisfaction of features or constraints (Delsing 1993; Santelmann 1992, 1993; Embick and Noyer 2001; Julien 2003, 2005, among others). In modified definite DPs, this movement is claimed to be blocked for different reasons. For example, under the proposal of Santelmann (1993), this movement is blocked due to licensing issues, as adjectives need the noun to be in a local m-commanding relation with them in order to be licensed for gender, definiteness and number. As such, in a modified DP, the noun has to remain low. Julien (2003) proposes a probe-goal relation between the definite noun and D for the satisfaction of uninterpretable definite and phi-features in D which are realized by the Agreement between D and the definite noun leading to the movement of the definite noun to the specifier of the DP in bare definite DPs. As Julien argues, in modified definite DPs, this probe-goal relation is blocked due to the intervention of adjectives, as adjectives are the closest goal for Agreement with D. For Delsing (1993) and Embick and Noyer (2001), in modified definite DPs, the movement of the (definite) noun to D is blocked due to the intervention of adjectives. Following Abney (1987), they assume a head position for APs. Here, I particularly argue against the general assumption that attributive adjectives are merged in head positions. As such, the emergence of double definiteness in Laki cannot be attributed to the head status of adjectives and the blockage they cause for the movement of the noun to a higher position (i.e., to D or [Spec,DP]). The idea of adjectives occupying head positions has been criticized in several other works; see Olsen (1989), Valois (1991), Bernstein (1993),

Svenonius (1994) and more recently Kahnemuyipour (2014), among others. A number of properties have been argued against the head position of adjectives. For example, by the use of intensifiers, APs can become larger. The iterative nature of APs provides more evidence in favor of the non-head merging position of adjectives. Considering their iterative nature, assuming adjectives merged in head positions requires them to arbitrarily select for either a nominal complement or an adjectival complement, which is an unfavourable assumption. The optionality of adjectives provides another piece of evidence against the assumption that adjectives are merged in head positions. It would be ideal if adjectives are treated uniformly across languages as phrasal projections occupying adjuncts or specifier positions. If so, the blocking analysis of head movement is systematically undermined. In what follows, I am assuming adjectives as elements that are merged in adjunct positions (i.e., NP adjoined).

In light of these considerations, we can conclude that in spite of some surface similarities between the double definiteness pattern in Scandinavian and Laki, the two languages diverge in empirical aspects: in Laki bare definite DPs, we see the realization of D, while in Scandinavian bare definite DPs, we see the realization of a non-D element (i.e., the definite suffix). Therefore, one cannot treat the pattern of the two languages similarly.<sup>4</sup>

#### 4. Double definiteness in Laki: An Agreement account

The double definite marking in Laki seems to be the result of Agreement between D (hosting the DP final definite marker) and N, establishing a feature checking relation between these two elements. Building upon the proposals of Santelmann (1993) and Julien (2003, 2005) for Scandinavian, I provide an Agreement account to analyze Laki double definiteness. The theory of Agreement proposed by Chomsky (1995, 2000, 2001) demonstrates a matching relation between the probe having an uninterpretable/unvalued feature and the c-commanded goal having the interpretable counterpart of probe's feature resulting in the feature checking of the probe's uninterpretable feature. Agreement is defined as below in Chomsky (2000):

$\alpha > \beta$  Agree ( $\alpha, \beta$ ), where  $\alpha$  is a probe and  $\beta$  is a matching goal,  $>$  is a c-command relation and uninterpretable features of  $\alpha$  and  $\beta$  are checked/deleted.

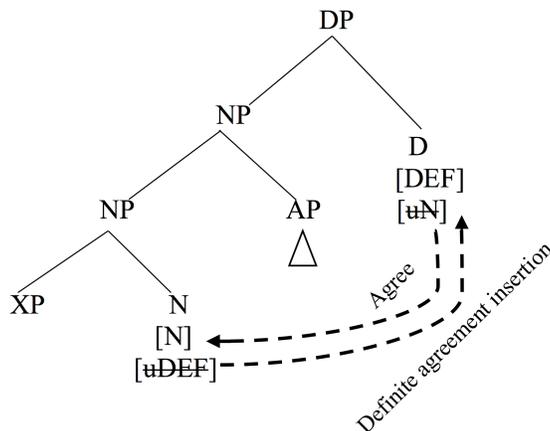
It was argued above that the DP final definite marker is the realization of D. As for the Agreement involved in Laki definite DPs, I assume that D merges with an unvalued [uN] feature. As such it is a probe and holds a matching relation with the c-commanded N having the valued [N] feature as the goal. Hence, the Agreement is established between D and N and the unvalued [uN] feature on D is valued by the valued [N] feature on the noun. I also assume that the noun has an unvalued [uDEF] feature. On the other hand, D is assumed to have a valued [DEF] feature. I posit that the unvalued [uDEF] feature on the noun is valued as a reflex of the probe by D against the valued [DEF] feature on D. As such, the noun inflects for definiteness.

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4. For more discussion on Scandinavian double definiteness see Börjars (1994, 1998); Delsing (1988); Svenonius (1993); Börjars and Donohue (2000); Hankamer and Mikkelsen (2005); Anderssen (2007); Faarlund (2009); LaCara (2011); Schoorlemmer (2012).

Under the current proposal, the DP final definite marker is taken as the spell-out of D and the DP internal definite marker appearing on the noun is taken as a definite agreement marker, resulted from the valuation of the [uDEF] feature on N, as shown below.

(30)



## 5. The interaction of number and definiteness

In this section, I examine the pattern of number marking and argue for an interaction between definiteness and number. Laki has two numbers: singular and plural. Singular is unmarked and plural is marked. In indefinite DPs, number is realized with the suffix *-al*. In definite DPs, it is realized with *-el*. In indefinite modified DPs (31a-31b), the plural marker appears on the noun. By contrast, in a modified definite DP (32a-32b), the plural marker appears on the (last) modifier. (33a) shows that in an indefinite modified noun phrase, the plural marker cannot appear on the modifier. Example (33b) shows that in a modified definite DP, the plural marker cannot appear on the noun.

- |      |    |  |    |  |
|------|----|--|----|--|
| (31) | a. | sif-al širin-i<br>apple-PL sweet-INDEF<br>'some sweet apples'    | b. | sif-al kalen širin-i<br>apple-PL big sweet-INDEF<br>'some sweet big apples'    |
| (32) | a. | sif-a širin-el-a<br>apple-DEF sweet-PL-DEF<br>'the sweet apples' | b. | sif-a kalen širin-el-a<br>apple-DEF big sweet-PL-DEF<br>'the sweet big apples' |
| (33) | a. | * sif širin-al-i   | b. | * sif-a-el širin-a   |

Other Iranian languages (i.e. Sorani Kurdish and Kermanshahi Kurdish), show similar patterns. In the following Sorani DP, we get the realization of the plural and definite marker on the modifier, similar to the pattern observed in Laki. Example (34) shows the pattern of

number marking of Sorani Kurdish in an indefinite modified DP and (35) shows the pattern in a definite modified DP.

- |      |  |      |  |
|------|--|------|--|
| (34) | sif-ān i širin<br>apple-PL EZ sweet<br>'some sweet apples' | (35) | sif-a širin- <b>akān</b><br>apple-DEF sweet-DEF.PL<br>'the sweet apples' |
|------|--|------|--|

The following examples illustrate similar facts in Kermanshahi Kurdish. Example (36) illustrates an indefinite modified DP and (37) shows a definite modified DP.

- |      |  |
|------|--|
| (36) | me gamāl- <b>eyl</b> si dus der-em.<br>I dog-PL black like have-SBJ.1SG<br>'I like black dogs.'          |
| (37) | me gamāl siy- <b>agān</b> dus der-em<br>I dog black-DEF.PL like have-SBJ.1SG<br>'I like the black dogs.' |

These cross-linguistic facts raise question about the interaction of definiteness and number. These pieces of descriptive evidence suggests an analysis requiring the realization of number along with definiteness in the plural definite DP.

### 5.1 Deriving the plural pattern in a definite DP

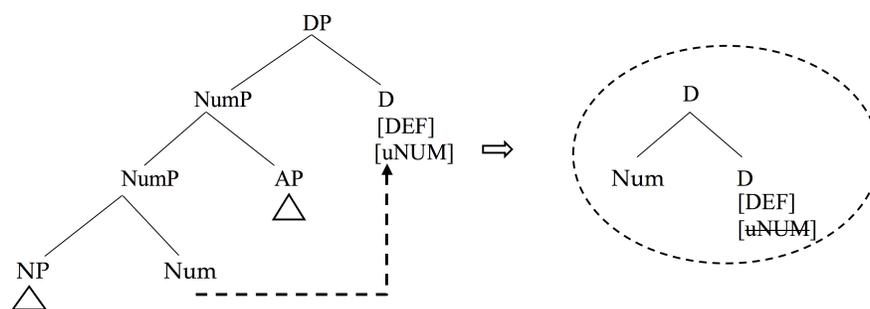
With respect to Laki, Sorani and Kermanshahi facts, I propose that Num(ber) undergoes head movement to D. There are two immediately relevant questions; (a). what triggers the head movement of Num to D? and (b). Does this movement violate the Head Movement Constraint? Firstly, I propose that excluding the [uN] feature that triggers Agreement with N, D has a strong [uNUM] feature that triggers the movement of Num to D. Secondly, this movement does not violate the Head Movement Constraint given that APs are not assumed to be heads, as discussed in subsection 3.2. Therefore, there is no intervening head between NumP and D that blocks the movement of Num to D.

Furthermore, I propose that two heads (Num and D) after the head movement of Num, are realized as one single head. In other words, at PF two heads are fused and are realized as one single head under D<sup>5</sup>.

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5. With respect to the single realization of Num and number in a definite plural DP, there can be another possible explanation which considers the plural definite marker as an allomorphy that expresses the definiteness and number. Under this assumption, we do not need to assume fusion after the head movement of Num to D.

(38)



In this regard, Kermanshahi facts are particularly suggestive in that the form of the plural marker in an indefinite DP (36) is clearly different from its expression in a definite DP (37). In Kermanshahi Kurdish, we obviously see a single (fused) realization of the plural and definite marker on the modifier.

## 6. Conclusion

In this paper, I examined definiteness and number in Laki. The pattern of double definiteness was examined through an Agreement account. This Agreement was argued to be established between D and the noun for feature checking requirements. The DP final definite marker was taken as the spell-out of D and the DP internal definite marker was argued to appear by virtue of the unvalued feature on D (i.e., [uDEF]) being valued through a reflex of the probe by D.

Furthermore, I proposed a head movement account for the pattern of number marking in the context of definite DPs. I postulated a strong [uNUM] feature on D which triggers the head movement of Num to D. I posited that after this head movement, two heads are fused and are realized with a single marker (i.e., *-ela*) at PF. This account could also capture similar phenomena in Kermanshahi and Sorani Kurdish.

The investigation of Laki double definiteness with its convergence and divergence from the previously attested similar patterns contributes to our general understanding of definiteness and the arrays that this pattern can take within a broader empirical observation.

## References

- Abney, Steven. 1987. *The English noun phrase in its sentential aspect*. Doctoral dissertation, Massachusetts Institute of Technology.
- Anderssen, Merete. 2007. The acquisition of compositional definiteness in Norwegian. *Nordlyd* 34(3): 252–275.
- Bernstein, Judy B. 1993. *Topics in the syntax of nominal structure across Romance*. Doc-

- toral dissertation, The City University of New York.
- Börjars, Kersti. 1998. *Feature distribution in Swedish noun phrases*. Oxford: Blackwell.
- Börjars, Kersti. 1994. *Feature distribution in Swedish noun phrases*. Doctoral dissertation, University of Manchester.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, eds. Roger A. Martin, David Michaels, and Juan Uriagereka, 89–156. Cambridge, MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MIT Press.
- Embick, David, and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32: 555–595.
- Ghomeshi, Jila. 1997. Non-projecting nouns and the ezafe construction in Persian. *Natural Language and Linguistic Theory* 15: 729–788.
- Ghomeshi, Jila. 2003. Plural marking, indefiniteness, and the noun phrase. *Studia Linguistica* 57(2): 47–74.
- Hankamer, Jorge, and Line Mikkelsen. 2005. When movement must be blocked: A reply to Embick and Noyer. *Linguistic Inquiry* 36(1): 85–125.
- Julien, Marit. 2003. Double definiteness in Scandinavian. In *Proceedings of the 19th Scandinavian Conference of Linguistics* 31(1): 230–244.
- Julien, Marit. 2005. *Nominal phrases from a Scandinavian perspective*. Philadelphia: John Benjamins.
- Kahnemuyipour, Arsalan. 2014. Revisiting the Persian ezafe construction: A roll-up movement analysis. *Lingua* 150:1–24.
- Karimi, Yadgar. 2007. Kurdish ezafe construction: Implications for DP structure. *Lingua* 117: 2159–2177.
- Karimi, Simin, and Michael Brame. 2012. A generalization concerning the Ezafe construction in Persian. *Linguistic Analysis* 38(1): 111–144.
- LaCara, Nicholas. 2011. A definite problem: The morphosyntax of double definiteness in Swedish. In *Morphology at Santa Cruz: Papers in Honor of Jorge Hankamer*, 55–83.
- Larson, Richard, and Yamakido, Hiroko. 2008. Ezafe and the deep position of nominal modifiers. In *Adjectives and adverbs: Syntax, semantics, and discourse*, eds. Louise McNally and Christopher Kennedy Oxford University Press.
- Olsen, Susan. 1989. Agr(eement) in the German noun phrase. In *Syntactic phrase structure phenomena in noun phrases and sentences*, eds. Christa Bhatt, Elisabeth Löbel, and Claudia Maria Schmidt. John Benjamins.
- Salehi, Ali. 2018. *Constraints on Izafa in Sorani Kurdish*. Master's thesis, University of Kentucky.
- Samiian, Vida. 1994. The ezafe construction: Some implications for the theory of x-bar morphosyntax. In *Persian studies in North America*. Ed. Mehdi Marashi. Bethesda, MD: Iran books.
- Samvelian, Pollet. 2007. A (phrasal) affix analysis of the Persian Ezafe. *Journal of Linguis-*

- tics* 43(3): 605–645.
- Santelmann, Lynn. 1992. Den-support: An analysis of double determiners in Swedish. In *Papers from the Workshop on the Scandinavian Noun Phrase*. University of Ume'a, 100–118.
- Santelmann, Lynn. 1993. The distribution of double determiners in Swedish. *Studia Linguistica* 47:154–176.
- Schoorlemmer, Erik. 2012. Definiteness marking in Germanic: morphological variations on the same syntactic theme. *Journal of Comparative Germanic Linguistics* 15:107–156.
- Svenonius, Peter. 1994. The structural location of the attributive adjective. In *Proceedings of the 12th West Coast Conference on Formal Linguistics*, eds. Erin Duncan, Donka Farkas, and Philip Spaelti, 439–454.
- Szabolcsi, Anna. 1994. The noun phrase. In *The syntactic structure of Hungarian*, eds. Ferenc Kiefer and Katalin E. Kiss, 179–275. Academic Press.
- Taghipour, Sahar. 2017. *Laki Verbal Inflection*. Master's thesis, University of Kentucky.
- Taghipour, Sahar. 2019. *Definiteness in Laki: Its distribution and interaction with other-nominal elements*. Generals Paper. University of Toronto.
- Toosarvandani, Maziar, and Coppe van Urk. 2014. The syntax of nominal concord: What ezafe in Zazaki shows us. In *the Proceedings of the 43th North East Linguistic Society*. eds. Hsin-Lun Huang, Ethan Poole and Amanda Rysling.
- Valois, Daniel. 1991. *The internal syntax of DP*. Doctoral dissertation, University of California, Los Angeles.