Definiteness in Laki: Its interaction with demonstratives and number

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Abstract

This article investigates definiteness and its interactions with demonstratives and number in Laki (Northwestern Iranian). By the examination of demonstratives and building upon previous proposals, I argue for two types of definite DPs in Laki, namely anaphoric and deictic. I show that the patterns of definite and number marking are sensitive to the type of the DP. In particular, I argue that double definiteness, resulting from an Agree relation between D and N, and head movement of Num to D both are obtained only in anaphoric definite DPs for feature-checking requirements. Overall, this study highlights the contributions of anaphoricity to the DP internal structure. The present proposal can account for similar phenomena in other Iranian languages (i.e., Sorani and Kermanshahi Kurdish). The divergence of Laki definiteness from similar attested patterns (i.e., Scandinavian double definiteness) contributes to our cross-linguistic understanding of definiteness and its interactions with other nominal elements.

Keywords: Double Definiteness, Number, Demonstratives, Laki, Iranian languages

Résumé

Cet article étudie la définitude et ses interactions avec les démonstratifs et le nombre en laki (iranien occidental (nord)). Par l'examen des démonstratifs et en m'appuyant sur des propositions antérieures, je plaide pour deux types de SD définis, en laki, à savoir des SD anaphoriques et des SD déictiques. Je montre que les modèles de marquage de définitude et de nombre sont sensibles au type de SD. En particulier, je soutiens que la double définitude, (résultant d'une relation d'accord entre D et N) et le mouvement de la tête de Num à D, ne sont obtenus que dans des SD définis anaphoriques pour les exigences de la vérification des traits. Dans l'ensemble, cette étude met en évidence les contributions de l'anaphoricité à la structure interne du SD.

La présente proposition peut rendre compte de phénomènes similaires dans d'autres langues iraniennes (le sorani et le kurde Kermanshahi). La divergence de la définitude en laki à partir de modèles attestés similaires (c'est-à-dire la double définitude scandinave) contribue à notre compréhension interlinguistique de la définitude et de ses interactions avec d'autres éléments nominaux.

Mots-clés: double définitude, nombre, démonstratifs, laki, langues iraniennes

1. INTRODUCTION

This article investigates the noun phrase of Laki (Kurdish, southern),[1] with a special focus on definiteness and number.[2] From a cross-linguistic perspective, definite marking has shown a great deal of variation with respect to different phenomena such as double definiteness (Scandinavian: Faroese, Norwegian and Swedish), poly-definiteness (modern Greek, modern Hebrew), unfixed pattern of definite marking (Amharic). Here, I examine definite marking in Laki as an instance of double definiteness. The investigation of this pattern in Laki, with its convergence and divergence from the prototypical Scandinavian pattern of double definiteness, contributes to our general cross-linguistic understanding of this phenomenon. I argue that the pattern of Laki double definiteness is limited to anaphoric definite DPs, and is obtained via an Agree relation between an anaphoric definite D and N. The goal of this study is not limited to the investigation of double definiteness. Here, I also examine demonstratives and their contribution to the definiteness of the DP. The facts of demonstratives provide supporting evidence that Laki double definiteness is obtained only in anaphoric definite DPs. The Agreement proposal for double definiteness also provides an account for the DP patterns with demonstratives. This study also examines the interaction between number and definiteness which results in Number movement to the D head. Number movement is also argued to be sensitive to the presence of the anaphoric definite D. Overall, the current study highlights the influence of anaphoricity on the DP structure. Some aspects of the proposed analyses can also be extended to sister Kurdish varieties that display similar patterns (e.g., Kermanshahi and Sorani Kurdish).

It is worth noting that Laki has remained understudied in several grammatical aspects, including its noun phrase. Considering the broad cross-linguistic diversity in definite marking under the effect of parametric variations, the current study aims to bring insights into the ongoing body of research on definiteness, and more

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[1]Under some classifications, Laki is separated from southern Kurdish. However, here, following much of the dialectal studies (e.g., McCarus 2009, Dabir-Moghaddam 2013), I am considering Laki as a southern Kurdish variety. The data in this article 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).

[2]Abbreviations: DEF: definite; DUR: durative; EZ: ezafe; INDEF: indefinite; PL: plural; PRS: present; SBJ: subject agreement; SG: singular; WE: weak; NEU: neuter.

broadly on the syntax of DP. The divergence of Laki definiteness from the previously attested patterns contributes to our understanding of definiteness and the arrays of its possible patterns in a broader empirical domain.

In Laki, nouns inflect for definiteness by the affix *-a*, as in (1). 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 definite marker appears on the modifier (henceforth DP final definite marker), as illustrated in (2).

(1) māl-**a**   (2) māl-**a**   kalen-**a**
     house-DEF   house-DEF big-DEF
     'the book'   'the big house'

To a large extent, the definiteness pattern in Laki seems to be similar to the pattern of Scandinavian double definiteness. In Norwegian, Swedish and Faroese, in bare definite DPs (i.e., a DP without a modifier), a definite suffix appears on the noun, as in the Swedish example in (3). When the definite noun is modified, as in (4), definiteness is realized with both a definite suffix on the noun and with a definite determiner. From now on, by Scandinavian, I mean Swedish, Norwegian and Faroese. These languages show an identical definite pattern.[3]

(3) mus-**en**   ate osten   (4) **den** gamla *mus-en*
     mouse-DEF åt cheese.DEF   the little   mouse-DEF
     'The mouse ate the cheese.'   'the little mouse'

<div align="right">Swedish; Börjars (1994b:227–228)</div>

As can be observed in the examples given above, Laki and Scandinavian share one crucial similarity: in a bare definite DP, both languages have one definite marker, and in a modified definite DP, they have two definite markers. I show that the existing similarity between these two definite patterns is not sufficient to give them the same analysis. This finding calls for a novel account for Laki. In section 2, I provide a more detailed description of facts involved in Laki DPs. I show that Laki definite DPs (without demonstratives) are uniformly anaphoric in their reference (more elaboration on this definiteness feature is given in section 5). In section 3, the empirical differences between Scandinavian and Laki double definiteness are addressed. I also discuss a number of approaches to Scandinavian and argue that these approaches cannot fully capture the Laki patterns. In section 4, some cross-linguistic facts from other Kurdish varieties are provided examining the possibility of pursuing an ezafe analysis for Laki along the lines of Karimi (2007), Samvelian (2008) and others

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[3]The following examples illustrate the pattern in Norwegian (i and ii) (Anderssen 2007: 252) and Faroese (iii and iv) (Schoorlemmer 2012: 109).

(i)   Hus-e   (ii)   Det   gaml-e hus-e
      house-the.NEU   the.NEU old-WE house-the.NEU
      'the house'   'the old house'

(iii) kettlingur-in   (iv)   tann svart-i   kettlingur-in
      kitten-DEF   DEF black-WE kitten-DEF
      'the kitten'   'the black kitten'

for different varieties of Kurdish. In Section 5, I propose an Agreement account (Chomsky 1995, 2000, 2001) for Laki double definiteness. This Agreement is argued to be established between D and N, resulting from D probing downward. In this section, the pattern of indefinite DPs are also examined. I argue that the Agreement between D and N fails in indefinite DPs leading to a single indefinite marking. In the same section, the interaction between number and definiteness is also discussed. I provide a head movement account for the distribution of number in definite DPs. This head movement is argued to be limited to anaphoric definite DPs. In Section 6, the patterns with demonstratives are described and analyzed. Building upon Lyons (1999), Alexiadou et al. (2007), Elbourne (2008), Schwarz (2009) and Cornish (2011), among others, I identify two definite features expressed by demonstratives; *anaphoric* and *deictic*. These definite features influence the DP structure in that they determine the presence of a definite agreement as well as the placement of Number. I argue that the pattern of double definiteness (resulting from the Agreement between D and N) and the head movement of Number both are obtained only in DPs with the anaphoric reference. Section 7 concludes the article.

2.   OVERVIEW OF DEFINITE MARKING IN LAKI

As shown above, nouns in Laki inflect for definiteness with the affix *-a* (5). When a definite noun is modified, Laki allows double definite marking: one definite marker appears on the noun (DP internal definite marker) and another one appears on the modifier (DP final definite marker), as in (6).

(5)	māl-**a**		(6)	māl-**a**	kalen-**a**
	house-DEF			house-DEF	big-DEF
	'the book'			'the big house'	

It is worth noting that this definite marking expresses anaphoric definiteness known as an expression of strong familiarity (Roberts 2003, Schwarz 2009). Anaphoric definite DPs pick referents that are familiar to the discourse participants. This property will be illustrated in section 5.1.

As shown in (6), the DP internal definite marker appears on the noun. When there is more than one modifier, the DP final definite marker has to appear on the last modifier, leaving the intermediate modifier(s) unmarked. In (7), the DP internal definite marker appears on the noun, and the DP final definite marker appears on the last modifier. As shown in (8)–(11), all other combinations of these affixes are unacceptable.

(7)	māl-a	kalen	sefid-a	(8)	*māl-a	kalen-a	sefid
	house-DEF	big	white-DEF		house-DEF	big-DEF	white
	'the big white house'						

(9)	*māl	kalen-a	sefid-a	(10)	??māl	kalen	sefid-a
	house	big-DEF	white-DEF		house	big	white-DEF

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

These two definite affixes both encode (anaphoric) definiteness. In their absence, the DP has a generic reading, referring to a kind or a class of entities.[4] Even though these two suffixes seem to be definite markers, they are different in two respects: stress and syllable sensitivity. The stress pattern of these two definite markers is different. While the DP internal definite marker does not receive the primary stress of the DP, the DP final definite marker that appears on the (last) modifier receives the primary DP stress. The stress is shown in bold to highlight the contrast in (12a) and (12b). Note that it cannot be the case that the primary stress is consistently assigned to the DP final syllable. The primary stress of the DP is always assigned to the final syllable of a noun appearing in the DP, and not to the final syllable of the DP. As such, the inflectional affixes appearing on a noun and in the DP final syllable position, such as indefinite and possessor markers, do not receive the DP primary stress. Also, as we will see in section 6, another DP final definite marker, namely the deictic definite marker, co-occurring only with demonstratives, does not receive the primary stress of the DP. Overall, these facts suggest that the assignment of the DP primary stress to the DP final definite marker is not due to an independent stress pattern in Laki. If that were the case, all other inflectional markers appearing in the DP final syllable position were expected to receive the primary stress of the DP. I will return to this discussion in section 6.

(12) a. māl-a   kalen-**a**   b. *māl-**a**   kalen-a
         house-DEF   big-DEF
         'the big white house'

The second difference between these two definite elements is in their sensitivity to the number of syllables of their host. The presence of the DP internal definite marker is sensitive to the number of syllables of its nominal host, while its DP final counterpart does not show such sensitivity. Example (13) shows that the definite markers appear on their host; that is, on the noun and the last modifier respectively. Examples (14) and (15) show that the DP internal definite marker does not appear on a polysyllabic noun. Example (16) shows that the DP final definite marker is obligatory and insensitive to the number of syllables of its host, as its absence on a polysyllabic adjective makes the DP ungrammatical. The glide in (14) and (15) is an epenthetic segment inserted for hiatus resolution.

(13) māl-a   kalen sefid-**a**   (14) ketew zwānšenāsi-**ya**
         house-DEF   big   white-DEF   book linguistics-DEF
         'the big white house'   'the linguistics book'

(15) *ketew-a   zwānšenāsi-**ya**   (16) *ketew zwānšenāsi
          book-DEF   linguistics-DEF   book linguistics

In a bare definite DP, we see the presence of only one definite marker. Crucially, this definite marker is stressed and insensitive to the number of the syllables of the host. Taking the stress assignment and the syllable sensitivity into consideration,

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[4]The absence of these definite suffixes does not lead to an indefinite reading, as indefinite DPs are marked with the phrase-final suffix -*i*. I will address indefinite DPs fully under section 5.2.

we can come to the conclusion that this -*a* is the DP final definite marker, and not the internal marker. Examples (17)–(18) show that in a bare definite DP, the DP final definite marker is stressed (shown in bold) and appears on a polysyllabic noun.

(17) ketew-**a**
    book-DEF
    'the book'

(18) zwānšenās-**a**
    linguist-DEF
    'the linguist'

The nature of the definite marker as the DP final definite marker in (17)–(18) is further supported by some facts from closely related Kurdish languages. In other Kurdish varieties, Kermanshahi and Sorani Kurdish, the DP final and the DP internal definite markers have different forms.[5] In a bare definite DP, definiteness is marked by the the DP final marker -*aga* and -*aka* respectively (19)–(20).

(19) kor-**aga**
    boy-DEF
    'the boy'   (*Kermānšāhi*)

(20) kur-**aka**
    boy-DEF
    'the boy'   (*Sorani*)

In these two varieties of Kurdish, when a definite noun is modified (21)–(22), the definite suffix appears phrase-finally, and another definite marker appears on the noun.[6] This pattern is similar to what we observed in Laki. Crucially, in these languages, the form of the DP final definite marker is different from the DP internal element, showing clearly that in the bare context, we have the DP final definite marker.

(21) kor-**a**   irāniy-**aga**
    boy-DEF   Iranian-DEF
    'the Iranian boy'   (*Kermānšāhi*)

(22) kur-**a**   irāniy-**aka**
    boy   Iranian-DEF
    'the Iranian boy'   (*Sorani*)

These observations provide support for two claims regarding Laki; ***first***, the -*a* appearing in a bare definite DP is a definite marker which is distinct from the DP internal -*a*, and ***second***, the expression of the DP internal -*a* appearing in a modified definite DP is dependent on the modification of the DP, whereas the DP final definite marker expresses definiteness independently. The independent and consistent realization of the DP final definite marker motivates taking the DP final definite marker as the realization of D. Furthermore, wider range of data from other Iranian languages provides support to consider the Laki DP final definite marker as the realization of D. For instance, Persian, which has the same ordering in its DP as that of Laki, only shows a DP final element as its definite marker (-*e*). The DP internal definite marker is absent in Persian. The following examples illustrate.

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[5]Kermanshahi and Sorani Kurdish belong to the southern and central branches of Kurdish language family, respectively. Recall that Laki is southern Kurdish.

[6]With respect to Sorani Kurdish (22), some previous proposals (e.g., Karimi 2007) have considered the DP internal definite marker as a linking element (a.k.a. *ezafe*) appearing between the noun and its modifier, which inflects for definiteness in definite DPs. I will return to this discussion in section 4 and argue that this assumption is not viable for Laki.

(23) kif bozorg-**e**   (24) kif bozorg sabz-**e**
     bag big-DEF   bag big   green-DEF
     'the big bag'   'the big green bag'

Importantly, this DP final element in Persian has been uniformly treated as the realization of D (see Ghomeshi 2003, Kahnemuyipour 2014, among others). These facts provide evidence in favor of considering the Laki DP final definite marker as the realization of D, and the DP internal one as an element inserted through a different mechanism. In section 5.1, I will argue that the DP internal definite marker is a definite agreement inserted as a result of an Agreement between the anaphoric definite D and N.[7]

3.   LAKI AND SCANDINAVIAN DOUBLE DEFINITENESS: EMPIRICAL AND THEORETICAL NOTES

With observations made so far, let us turn to the Scandinavian double definiteness again and examine its similarities and differences with the pattern of Laki more closely. For ease of reference, I repeat below the Swedish examples given in (3)–(4).

(25) mus-**en**   åt osten   (26) **den** gamla mus-**en**
     mouse-DEF ate cheese.DEF   the   little   mouse-DEF
     'The mouse ate the cheese.'   'the little mouse'
                                                   Swedish; Börjars (1994b:227–228)

As mentioned above, the similarity is that in both languages definiteness is marked once in a bare definite DP and twice under modification. However, the two languages show one crucial difference. In Laki, we see the realization of D in two contexts: in a bare definite DP (17)–(18) and in a modified definite DP (13)–(14). As noted above, the stress pattern, syllable sensitivity and cross-linguistic observations all support the claim that the definite marker that appears in Laki bare definite DPs is the DP final definite marker. This definite marker, and not the DP internal one, was argued to be the realization of D. By contrast, in Scandinavian, we see the realization of D only in modified definite DPs (26). In bare definite DPs, we see the definite suffix (25). Importantly, what most approaches to Scandinavian have in common is the assumption that the determiner, and not the definite suffix, is the realization of D; see |Santelmann (1992, 1993); Delsing (1993); Embick and Noyer (2001); Julien (2003); LaCara (2011), among others.[8] In other words, in Scandinavian, it is the suffixal definite marker (i.e., a non-D element) that appears in two contexts: bare definite DPs and modified definite DPs (25)–(26). In Laki, it is the D that appears in the two contexts. This crucial difference in the realization

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[7]In section 3, compared to the pattern of Scandinavian, I reject the basic idea of taking the Laki DP internal definite marker as the realization of a distinct syntactic projection.

[8]There is debate over the nature of the definite suffix in Scandinavian. Some authors have taken it as a functional head; that is, Art (Santelmann 1993), or *n* (Julien 2003), a bound morpheme base-generated on the noun or in D (Delsing 1993), a dissociated morpheme inserted at PF (Embick and Noyer 2001).

of D in the two languages makes the approaches of Scandinavian double definiteness unsuitable to capture the Laki definite pattern.

The fact that in Scandinavian, in contrast to Laki, the realization of D is limited to modified definite DPs has motivated the main spirit in several analyses of Scandinavian double definiteness that in bare definite DPs, the (definite) noun under-goes 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 (Santelmann 1992, 1993; Delsing 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 rela-tion with them in order to be licensed for gender, definiteness and number. As such, in a modified DP, the noun has to remain low.[9] Julien (2003) proposes a probe-goal relation between the definite noun and D for the satisfaction of uninterpretable def-inite and phi-features posited 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 assump-tion 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 – to D or to Spec,DP. Furthermore, as we will see in section 5.3, the consideration of adjectives in adjunct positions is a crucial assumption in the account given for the pattern of number marking. It is shown that the presence of adjectives does not block Number head movement to a higher structural position.

The idea of adjectives occupying head positions has been criticized in several other works; see Olsen (1989), Valois (1991), Bernstein (1993), Svenonius (1994), Julien (2003, 2005) and more recently Kahnemuyipour (2014), among others. A number of properties have been examined 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

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[9]Adjectives in Scandinavian inflect for definiteness, gender and number. The definite inflection (a.k.a. weak inflection) can be seen on adjectives in examples (4) and (26) and (ii) and (iv) in footnote 3. Definiteness in (4) and (26) is marked with the vowel -a on the adjective *gaml*. Adjectives in (ii) and (iv) are modified and hence hyphenated and glossed for the definite inflection. Gender and number are marked on adjectives in indefinite DPs (i.e., strong inflection).

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).[10]

In a number of accounts for Scandinavian double definiteness, the two definite markers have been considered as two distinct syntactic projections. For example, Santelmann (1993) and Julien (2003, 2005) posit two definite heads in their analysis (also see Schoorlemmer 2012 for the two D copy analysis). Crucially, given the broader distribution of the Scandinavian definite suffix compared to its definite article, it is a valid assumption that the Scandinavian definite suffix could project its own phrase. By contrast, taking the Laki DP internal definite marker as the realization of a separate syntactic projection is under question, given the fact that we never see the independent realization of this element.

In light of these considerations, we can clearly observe that in spite of some surface similarities between the double definiteness pattern in Scandinavian and Laki, the two languages diverge in some 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. In particular, considering the proposals examined above, the pattern of Laki bare definite DP cannot be analyzed as the result of the noun raising to D or to Spec,DP. Furthermore, regarding the pattern of modified definite DPs, given that in Scandinavian, we see the realization of D under modification, the presence of D in the absence of a modifier in Laki is unexplained.[11] In the following section, I consider the possibility of taking the DP internal definite marker as a nominal linker (a.k.a. *ezafe*) and examine the validity of this assumption. I argue that the DP internal definite marker cannot be taken as a nominal linker.

4. DP INTERNAL DEFINITE MARKER AS A NOMINAL LINKER?

In many Iranian languages, nominal heads are linked to their modifiers or possessors by a linking element known as *ezafe*; see Samiian (1994), Ghomeshi (1997), Karimi (2007), Larson and Yamakido (2008), Karimi and Brame (2012), Kahnemuyipour (2014), among others. The following examples are from Persian and Sorani Kurdish respectively. The Sorani data in (29)–(30) is borrowed from Karimi (2007: 2).

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[10]Since Kayne (1994), the distinction between specifiers and adjuncts has been lost for some scholars, leading to the placement of APs in the specifiers of functional projections above NP; for example, Cinque (2005, 2010). The detailed theoretical distinctions between these two possible positions for APs are not the concern of the present study.

[11]For more discussion on Scandinavian double definiteness see Delsing (1988); Svenonius (1993); Börjars (1994, 1998); Börjars and Donohue (2000); Hankamer and Mikkelsen (2002, 2005); Anderssen (2007); Faarlund (2009); LaCara (2011); Schoorlemmer (2012).

(27) xune-**ye** qadimi
      house-EZ old
      'old house'

(28) ketāb-**e** sārā   (*Persian*)
      book-EZ Sara
      'Sara's book'

(29) kteb-i   sur
      book-EZ red
      '(a) red book'

(30) kteb-**i**   Hiwā   (*Sorani*)
      book-EZ   Hiwa
      '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 modified definite DP is a definite marker, and the DP internal one is an ezafe which is showing concord with the definite marker. There are proposals along the same lines for other Iranian languages in which ezafe shows concord with a morphosyntactic feature (including definiteness); see Karimi (2007), Samvelian (2008), Toosarvandani and van Urk (2014), Atlamaz (2016), Tahir (2018), among others. In Sorani Kurdish, as shown in examples (29)–(30), ezafe is marked with -*i* between a noun and its modifier or possessor. Definiteness in Sorani Kurdish is realized with the affix -*aka*.[12] Crucially, in the context of the definite marker, the ezafe appears as -*a*. It has been argued that ezafe shows concord with definiteness when it is in the domain of definiteness, as in the following example.

(31) kteb-a   sur-a gawra-(a)ka
      book-EZ red-EZ big-DEF
      '(a) big red book'   Karimi (2007: 11)

Along these lines regarding the Laki data, one could assume that the -*a* between the noun and the modifier is an ezafe which shows concord with the definite marker (i.e., the DP final -*a*). However, a wider range of Laki data in the nominal domain reveals a difference with respect to the presence of ezafe and the function of definiteness in Laki compared to Sorani. There are two main differences between Laki and Sorani in their noun phrases, which exclude the possibility of the -*a* suffix between the noun and the modifier to be a linking element in Laki. Firstly, Laki lacks ezafe in its nominal domain. That is, when a noun is modified or possessed, no linking element appears between the noun and its modifier or possessor, as illustrated in (32)–(33).

(32) ketew zewānšenāsi
      book linguistics
      'a linguistics book'

(33) ketew sārā
      book Sara
      'Sara's book'

Moreover, in a Sorani modified DP, as shown in (31) above, repeated below as (34), 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 head noun. The example in (35) illustrates that the first modifier lacks -*a*. The iterative nature of ezafe is not a particular property of ezafe restricted to Sorani Kurdish. This property is invariably observed across Iranian languages that display the ezafe construction. This

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[12]In some varieties of Sorani and depending on the orthography, the variant -*eke* is used.

characteristics makes an ezafe analysis (combined with concord) feasible for the Sorani *-a*, but not for the Laki *-a*.

(34) kteb-a   sur-a   gawra-(a)ka   (35) māl-a   kalen sefid-a
     book-EZ red-EZ big-DEF   house-DEF big   white-DEF
     '(a) big red book'   'the big white house'

As a result of these observations, the possibility of taking the DP internal *-a* as a linker element is ruled out for Laki.[13]

5. ANALYSIS

In this section, building upon the proposals of Santelmann (1993) and Julien (2003, 2005) for Scandinavian, I provide an Agreement account to analyze Laki double definiteness. Then, I show the pattern of indefinite DPs and argue that due to the featural properties of the indefinite D, Agreement fails in such DPs. Therefore, the double definite pattern is not obtained in indefinite DPs. Furthermore, in this section, I examine the pattern of number marking and argue for a head movement analysis of Num to D in definite DPs.

5.1 Definite nouns

As mentioned in section 2, Laki definite DPs express anaphoricity. As such, in my descriptions and analysis, I refer to these definite DPs as anaphoric definite DPs. In section 6, we will see that in the context of demonstratives, the DP can express a different definite property, namely deictic definite. Given that the deictic definite property is expressed only in the presence of a demonstrative and given that the definite DPs without demonstratives (i.e., the definite DPs we have seen so far) express anaphoricity, the discussion of this section is focused on the anaphoric definiteness. As already indicated in section 2, the anaphoric definiteness is commonly known as an expression of strong familiarity (Roberts 2003, Schwarz 2009) which picks referents that are familiar to the discourse participants. In the following examples, the nouns 'book' and 'girl' have the same particular referent for the speaker and the hearer. These definite expressions can also be anaphoric to a linguistic antecedent (similar to the function of English definite article *the*).

(36) ketew-a   (37) det-a   lak-a
     book-DEF   girl-DEF Lak-DEF
     'the book'   'the Lak girl'

In section 2, I also argued that the Laki DP internal and DP final definite markers are two different definite markers. In this regard, I argued that the DP final definite

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[13]The observations in this section raise the possibility that in a diachronic scale, Laki might have developed differently and have undergone reanalysis in its ezafe construction. What we synchronically see as a definite construction might have originated from an ezafe construction. If it is the case, the question that arises is how ezafe has developed differently in two sister Kurdish languages. This is a question that I leave aside in this study.

marker is the realization of D. By contrast, the DP internal definite marker was argued to be a non-D element which appears only in modified definite DPs. In section 3, it was argued that the pattern of Scandinavian double definiteness does not fully overlap with that of Laki and hence the accounts given for Scandinavian cannot totally capture Laki facts.
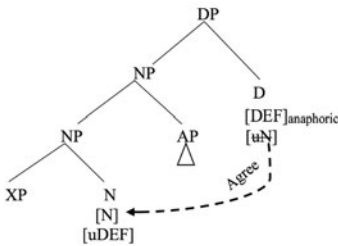
As we will see in section 5.2., similar to the DP final definite marker, the indefinite marker also appears in the phrase-final position. Following Abney (1987), Szabolcsi (1994) and subsequent authors, I take the definite and indefinite markers as different realizations of a single D head (see Ghomeshi 2003 for the QP versus DP analysis of indefinite and definite markers in Persian). Furthermore, I assume that the D head, regardless of its different realizations (e.g., definite vs. indefinite) has a valued definiteness feature. However, to capture the different patterns obtained in indefinite DPs (examined in section 5.2) or deictic definite DPs (examined in section 6), further featural specification on D is required. Given the anaphoric nature of the definite marker in definite DPs, I take the definiteness feature on D to be a valued $[DEF]_{anaphoric}$ feature in anaphoric definite DPs. In indefinite DPs, the valued definiteness feature on D is assumed to be $[DEF]_{indefinite}$ and in deictic definite DPs, the valued definiteness feature is taken to be $[DEF]_{deictic}$. Crucially, this characterization of the D head can account for the different patterns we observe across different DPs. More will be discussed about these different patterns in section 5.2 and section 6, when I examine indefinite and deictic definite DPs. The discussion in this section will be focused only on the anaphoric definite DP.

The theory of Agreement proposed by Chomsky (1995, 2000, 2001) demonstrates a matching relation between a probe having an unvalued feature and a goal having the valued counterpart of the probe's feature, resulting in the probe's unvalued feature being checked/valued. Regarding the Laki data, given that the definiteness feature expressed in definite DPs is an anaphoric definite feature, as stated above, I assume a valued $[DEF]_{anaphoric}$ feature on D. The postulation of a definiteness feature on D aligns with several proposals that have provided Agreement/concord accounts in the DP domain (Thorne 1972; Santelmann 1993; Julien 2003, 2005; Kramer 2009). Furthermore, I posit that the anaphoric definite D has an unvalued [uN] feature.[14] This unvalued [uN] feature makes the anaphoric definite D a probe. Furthermore, I assume that nouns are also merged with featural properties. The features on the noun are posited to be a valued [N] feature and an unvalued definiteness feature, namely [uDEF]. When both the noun and the definite D are merged with their features, D probes downward and establishes a matching relation with the noun having the valued [N] feature. As such, the Agreement is established between D and the noun. Given this Agreement, on one hand, the unvalued [uN] feature on D is valued; on the other hand, the unvalued [uDEF] feature on the noun is valued as a reflex of the probe by D, against the valued definiteness feature on D.

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[14]The postulation of an uninterpretable/unvalued [uN] feature on non-nominal elements (e.g., verbs or adpositions) has also been considered in a number of places (see Adger 2003, Kinsella 2009, among others).

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, resulting from the valuation of the [uDEF] feature on N. The Agreement involved in a modified definite DP is shown in a two-step derivation below.

(38) a. Definite Agreement: Step one   b. Definite Agreement: Step two
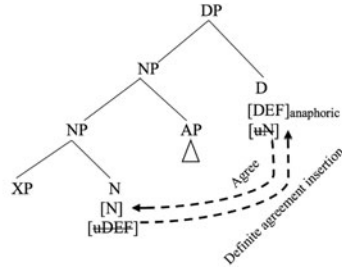
With respect to the syllable sensitivity of the definite agreement, one can postulate that the syllable structure of the root is visible to the insertion of the definite agreement. Hence, when the nominal root has more than one syllable, due to a PF constraint, the definite agreement is realized with a null allomorph.

Furthermore, considering the Agreement relation between D and the noun, we should expect to see the double expression of definiteness on the noun in a bare definite DP. The first marker is supposed to be the definite agreement, and the second one is supposed to be the realization of D. Therefore, what we would expect to see is the following DP.

(39) *det-a-a
      girl-DEF-DEF
      'the girl'

However, this prediction is not borne out as the DP *det-a-a* is ill-formed. In the bare definite DP, we see one definite marker on the noun. As shown in section 2, this definite marker has the properties of the DP final definite marker: it is stressed, and it is not syllable sensitive (40)–(41).

(40) det-**a**   (41) zwānšenās-**a**
      girl-DEF   linguist-DEF
      'the girl'   'the linguist'

As argued in section 2, in addition to the difference in the stress assignment and syllable sensitivity, the cross-linguistic facts from other Iranian languages confirm the accuracy of the claim that the definite marker in bare definite DPs is the DP final definite marker and not the definite agreement on the noun (see examples (17)–(24) in section 2). Therefore, the overt realization of the definite agreement at PF seems to be sensitive to the adjacency of two definite markers in a bare DP. I take the lack of the definite agreement in bare definite DPs as an OCP effect captured by the conditions on insertion rules banning the adjacency of two overt definite markers on a noun. In general, regarding the null realization of the definite agreement

marker, I posit that a null allomorph of the definite agreement is chosen in two contexts: when there is already a definite marker on the noun arising in the context of bare definite DPs, and when the noun is not monosyllabic. Overall, the sensitivity of the definite agreement to such PF constraints provides support for taking the two definite markers (i.e., DP final definite marker and definite agreement) as distinct elements, as has been argued in the current proposal.

5.2 Indefinite nouns

The proposal put forth above provided an Agreement account for the pattern of double definiteness emerging in (anaphoric) definite contexts. In this section, we will be looking at indefinite nouns. Indefinite nouns in Laki are marked with the affix *-i* (42). In contrast to definite nouns, when an indefinite noun is modified, no double marking is obtained, even if the noun is monosyllabic, as shown in (43)–(44). In (43), there is only one indefinite marker, which appears on the modifier. A modified noun cannot take an indefinite marker (44).

(42) māl-**i**   (43) māl   kalen-**i**
    house-INDEF   house big-INDEF
    'a house'   'a big house'

(44) *māl-**i**   kalen-**i**
    house-INDEF big-INDEF

As indicated in the previous section, I am taking definite and indefinite markers as different realizations of a single D head occupying a high functional position in the DP structure. It is worth noting that the pattern of stress assignment in definite and indefinite DPs seems to cast doubt on the assumption of a single head approach. As already mentioned, the DP final definite marker receives the primary DP stress. By contrast, the indefinite marker does not receive the primary stress. Considering this difference at first glance, one can postulate that the definite and indefinite markers are inserted in two different syntactic positions. However, one can argue on the contrary that the different pattern of stress assignment is not necessarily an indication of distinct projections for these two elements. As we will see in section 6, the difference in the stress pattern exists even in sub-types of definite DPs. While the anaphoric definite D receives the primary stress, the deictic definite D does not. I will argue in section 6 that the stress pattern could possibly be explained via independent PF principles such as the specific prosody of the vocabulary items.

With respect to the pattern of indefinite DPs, the main question is why don't we obtain double indefinite marking in indefinite DPs? As indicated in the previous section, in indefinite DPs, the valued definiteness feature on D is assumed to be $[DEF]_{indefinite}$, reflecting its indefinite property as opposed to the definite D. I posit that the unvalued [uN] feature is limited to an anaphoric definite D. Therefore, the only feature available on the indefinite D is the valued $[DEF]_{indefinite}$ feature. Given the strong referential property of anaphoric definite elements, the postulation of the [uN] feature limited to the anaphoric D seems motivated. As a result of the featural property on the indefinite D (i.e., lacking the [uN] feature), D does not probe and

hence the Agreement fails.[15] Following Preminger ([2009], [2011]), I posit that the failure of Agree in an indefinite DP and hence the presence of the uninterpretable [uDEF] feature on the noun does not lead to a crashed derivation. In such a derivation, the unvalued [uDEF] feature on the noun is deleted, to avoid the ill-formedness of the indefinite DP, illustrated in (45).[16]

(45) a. Failure of Agree   b.   Feature deletion
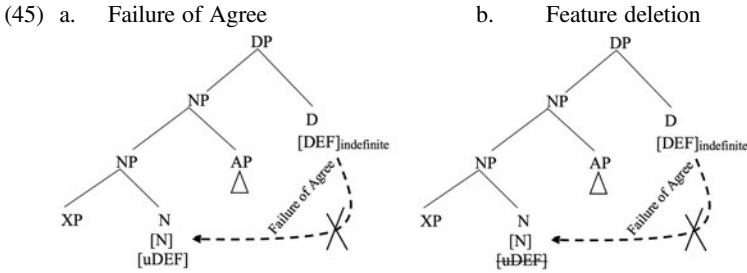
5.3 The interaction of number and definiteness

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 a modified indefinite DP (46)–(47), the plural marker appears on the noun (see (50)). By contrast, in a modified definite DP (48)–(49), the plural marker appears on the (last) modifier (51).

(46) sif-al   širin-i   (47) sif-al   kalen širin-i
      apple-PL sweet-INDEF   apple-PL big   sweet-INDEF
      'some sweet apples'   'some sweet big apples'

(48) sif-a   širin-el-a   (49) sif-a   kalen širin-el-a
      apple-DEF sweet-PL-DEF   apple-DEF big   sweet-PL-DEF
      'the sweet apples'   'the sweet big apples'

(50) *sif   širin-al-i   (51) *sif-el-a   širin-a
       apple sweet-PL-INDEF   apple-PL-DEF sweet-DEF

    With respect to number marking, there is a similar pattern in other Kurdish varieties (i.e., Sorani and Kermanshahi Kurdish), where we see the mobility of the plural marker. Let us consider this cross-dialectal evidence before attempting to provide an analysis for the Laki pattern.

    The plural marker in Sorani Kurdish is -*ān*, and the definite marker is -*aka*. In (52), we have an indefinite DP and the plural marker remains on the noun. By

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[15]In my analyses, I consistently assume a downward Agree (i.e., the probe c-commands the goal), as opposed to upward Agree (i.e., the goal c-commands the probe); see Wurmbrand ([2012]), Zeijlstra ([2012]) and Bjorkman and Zeijlstra ([2014]) for a discussion of upward Agree.

[16]Looking at cross-linguistic data, we observe that the expression of definiteness via agreement, concord or spreading is a well-known phenomenon; see Simpson ([2001]); Aboh ([2004]); Kramer ([2009]); Norris ([2012], [2014]), a.o. This raises the question of why such patterns are widely observed with definite DPs, compared to their indefinite counterparts; this asymmetry across languages I leave for a future research.

contrast, in (53) which is a definite DP, the plural marker appears on the modifier next to the definite marker.[17] Examples are adapted from Salehi (2018: 62, 30).

(52) pyāw=**ān**=i   barz   (53) gamāl=a   zel=a   raš-**akān**
     man=PL=EZF   tall   dog=EZF   big=EZF   black-DEF.PL
     '(some) tall men'   'the big black dogs'

In Kermanshahi Kurdish, we see a similar pattern. In this variety, -*aga*, and -*eyl* encode definiteness and plurality respectively, as in (54)–(55).

(54) gamāl-**aga**   (55) gamāl-**eyl**
     dog-DEF   dog-PL
     'the dog'   'dogs'

In a modified non-definite (generic or indefinite) noun phrase, as in the generic DP (56), the plural marker appears on the noun. By contrast, when the noun is definite, the plural marker appears in the phrase-final position and is realized with the definite marker, forming a single affix (i.e., -*agān*), as in (57). Importantly, here the plural markers used in generic and definite DPs are clearly distinct.

(56) me gamāl-**eyl** sia   dus   dir-em.
     I   dog-PL   black like have-SBJ.1SG
     'I like black dogs.'

(57) me gamāl sia-**(a)gān**   dus dir-em.
     I   dog   black-DEF.PL like have-SBJ.1SG
     'I like the black dogs.'

The above facts raise a question about the interaction of definiteness and number marking. These observations motivate an analysis requiring a different realization of number in plural definite DPs compared to its realization in non-definite DPs (i.e., generic and indefinite). In section 6.2, we will see that this pattern is sensitive only to anaphoricity.[18] Leaving these details aside, in what follows, I provide an account for the interaction of number and definiteness.

With respect to the Laki, Sorani and Kermanshahi facts, firstly following Delfitto and Schroten (1991), Rouveret (1991), Ritter (1992), among others, I assume that Num is a functional projection. In the context of the definite DP, I argue that Num undergoes head movement to the anaphoric definite D. In addition to the [uN] feature that triggers Agreement with N, the (anaphoric) definite D is assumed to have a strong [uNUM] feature. This strong feature triggers the movement of Num to D. Furthermore, I propose that two heads (Num and D) after the head movement of Num, are fused and realized as one single head at PF.[19] Some previous accounts

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[17]I will argue later that in definite DPs, the definite marker and the plural marker undergo fusion. Therefore, in example (53), the plural and the definite affixes are not hyphenated. Instead, they are considered as one affix.

[18]The definite DPs of Sorani and Kermanshahi Kurdish varieties cited here are anaphoric definite.

[19]One can provide an alternative explanation through which a portmanteau suffix realizes the [plural definite] feature as an allomorph of the definite D. Under this assumption, we do not need to assume a fusion operation. Regardless of the realization of D, we still need to explain

have presented proposals along the same lines. For example, regarding Swedish definite DPs, Julien (2003, 2005) proposes uninterpretable phi-features on D that are checked against the interpretable phi-features of Number. This Agreement has been argued to involve the head movement of Number to a definite projection and ultimately to the specifier of the DP (for discussion, see Julien 2003). Furthermore, similar facts from another Iranian language, Persian, provide further supporting evidence for the special interaction of number and definite marking which is absent in indefinite DPs. Based on several pieces of evidence, Ghomeshi (2003) argues that plural nouns in Persian have a definite interpretation, unless the noun is marked with an indefinite suffix. Leaving the details of this discussion aside, Persian brings an important piece of evidence for the claim that number and definite marking have a particular interaction. As briefly discussed in section 2, nouns in Persian are marked for definiteness by the phrase-final suffix *-e*, as illustrated in the following examples.

(58) kif bozorg-e
bag big-DEF
'the big bag.'

(59) kif bozorg sabz-e
bag big green-DEF
'the big green bag.'

Number is marked with the suffix *-hā* (and *-ā* in colloquial speech). In indefinite modified DPs, the plural marker appears on the noun, as shown in (60). By contrast, in a modified definite DP (61), the plural marker appears in the phrase-final position and the definite suffix *-e* disappears. In such DPs, the definiteness and number both are expressed by the plural marker. Ghomeshi considers this plural marker as an allomorph of the definite marker (i.e., the plural counterpart to the singular definite marker *-e*). These facts from Persian lend cross-linguistic support for the interaction of number and definite marking leading to their single realization in definite DPs.

(60) ketāb-hā-ye jāleb-i
book-PL-EZ interesting-INDEF
'some interesting books.'

(61) ketāb bozorg-hā
book big-PL
'the big books.'

Persian; adapted from Ghomeshi (2003:70)

I propose the following structure for the head movement analysis of Number in Laki which could also be extended to Kermanshahi and Sorani Kurdish varieties, examined above.[20] After head movement of Num to D, D and Num form a complex D head, which is realized as a plural definite suffix at PF.

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why number is not realized in situ; that is, under Num. The head movement analysis seems to be one appropriate explanation for this problem.

[20]This analysis could also be extended to Persian number marking. The application of this analysis to Persian facts requires the assumption that number in Persian is introduced under a NumP (contra Ghomeshi 2003) that moves to D. Moreover, in contrast to Laki, in Persian plural definite DPs, the definite marker disappears and the number marker expresses both definiteness and number.

(62) Number head movement in definite DPs
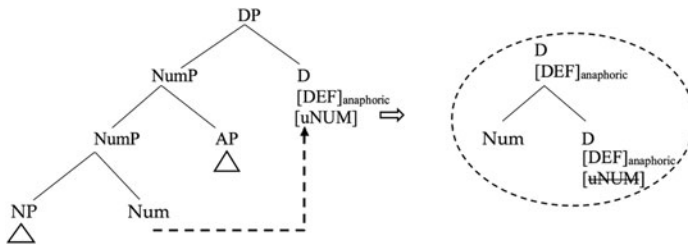
Note that the strong unvalued [uNUM] feature is limited to the plural anaphoric definite DP (i.e., when D is [*DEF*]*anaphoric*). As the empirical observations of other Iranian languages suggested, head movement of Num to D does not seem to occur in indefinite or generic DPs. I posit that in plural indefinite DPs (i.e., D having the valued [*DEF*]*indefinite* feature), D lacks the [uNUM] feature. Therefore, in such DPs, Num remains low and does not undergo head movement to D, illustrated in the Laki examples (46)–(47) above and in the diagram given below.

(63) Number in indefinite DPs
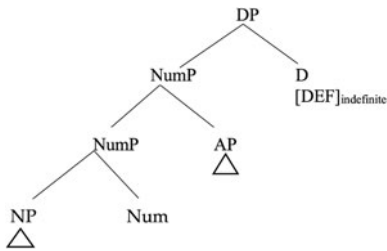
In the next section, I consider a wider range of data involving demonstratives. I extend the proposed analyses to account for definite marking and the position of number in DPs with demonstratives.

6. DEMONSTRATIVES

In this section, I introduce a different type of definite feature – namely deictic definite. The facts regarding the demonstratives, presented in this section, support the claim that demonstratives can express two types of definiteness: deictic and anaphoric. Furthermore, the demonstrative facts crucially show that double definiteness and Num head movement both are limited to the anaphoric definite DP, as argued in sections 5.1 and 5.3.

There are two DP initial demonstratives in Laki, *i* 'this' and *a* 'that'. As shown in (64)–(67), in DPs with demonstratives, a DP final suffix (i.e., *-a*) obligatorily appears. Similar to the DP final definite marker, this affix is not syllable sensitive. However, in contrast to the DP final definite marker, this affix does not receive the primary stress of the DP. Furthermore, in (64)–(67), we do not see the definite agreement marker on the noun (i.e., the DP internal definite marker). I intentionally put a question mark in the glossing, until the nature of this phrase-final *-a* is identified.

(64) i   det   irāniy-a   (65) i   det irāni   zwānšenās-a
     this   girl   Iranian-?   this girl Iranian linguist-?
     'this Iranian girl'   'this Iranian linguist girl'

(66) a   det   irāniy-a   (67) a   det irāni   zwānšenās-a
     that   girl   Iranian-?   that girl Iranian linguist-?
     'that Iranian girl'   'that Iranian linguist girl'

In spite of the difference in the stress assignment, I argue that the DP final suffix in DPs with demonstratives is an allomorph of the DP final definite marker expressing a different type of definite property – namely deictic definite. The deictic property signals an immediately accessible reference to the hearer/reader (i.e., direct reference). From a cross-linguistic perspective, taking this phrase-final suffix as a definite marker looks well-motivated. In a number of languages (e.g., Hungarian, Javanese, Greek and Romanian), demonstratives obligatorily appear with a definite element, as illustrated in (68–71). Furthermore, see Roberts (2002), Wolter (2006), Elbourne (2008), Schwarz (2009), among others, for the analyses that have considered noun phrases with demonstratives to be definite across languages.

(68) ez a   haz   (*Hungarian*)   (69) ika n   anak   (*Javanese*)
     this the house   this the baby

(70) afto to vivlio   (*Greek*)   (71) omul   acesta   (*Romanian*)
     this the book   man-the this

                                                      Alexiadou et al. (2007: 106)

Crucially, demonstratives show another pattern. This pattern is similar to the pattern observed with the (anaphoric) definite DPs (i.e., definite DPs without demonstratives, analyzed in section 5.1). As shown below in (72)–(73), the similarity is that a definite agreement appears on the monosyllabic noun, and the DP final definite marker is stressed (in bold). It should be highlighted that this pattern is restricted to DPs with the demonstrative *a* 'that' and not *i* 'this'. Examples (74)–(75) show that we cannot have the equivalent pattern in modified DPs with the demonstrative *i* 'this'. Instead, the pattern that we consistently see with the demonstrative *i* 'this' is the pattern we observed above in (64)–(67).

(72) a   det-a   irāniy-**a**   (73) a   det-a   irāni   zwānšenās-**a**
     that girl-DEF Iranian-DEF   that girl-DEF Iranian linguist-DEF
     'that Iranian girl'   'that Iranian linguist girl'

(74) *i det-a irāniy-**a**   (75) *i det-a irāni zwānšenās-**a**

I argue that demonstratives in Laki are definite expressions and have both deictic and anaphoric references. However, the anaphoricity is argued to be restricted to the demonstrative *that*, leading to the pattern in (72)–(73). To illustrate the semantic difference between anaphoric and deictic properties in Laki more clearly, consider the following contexts. In (76), we have the demonstrative *that*. When the demonstrative is used in its anaphoric sense, it has to refer to a tree that is not physically present but known to the speaker and hearer due to some prior knowledge or due to a previous indication of that particular tree in the conversation. With this interpretation, as indicated above, the DP final definite marker receives the primary stress of the DP, and

the pattern of double definiteness is obtained. If the demonstrative is used in its deictic sense, the tree has to be physically present (e.g., the speaker and the hearer can both see a tree that is in their view.). With this interpretation, as mentioned before, the DP final definite marker does not receive the primary stress and there is no definite agreement on the noun. The demonstrative *this*, as in (77), can only express the deictic sense and hence illustrates the deictic pattern.[21]

(76) a   dār(-a)   kalen-a   m-own-em.
      that   tree-DEF   big-DEF   DUR-see.PST
      'I see that tall tree.

(77) i   dār   kalen-a   m-own-em.
     this   tree   big-DEF   DUR-see.PST
     'I see this tall tree.

Based on the observations given above, I refer to the demonstrative *that* in its anaphoric sense as the anaphoric demonstrative. For the rest of the discussion in this section, I will focus on the anaphoricity of DPs with the demonstrative *that* and their semantic and syntactic similarities to the anaphoric definite DPs without demonstratives, examined in section 5.1. For more clarity in the discussion here, I consistently refer to the definite DPs without demonstratives as "anaphoric definite DPs without demonstratives". One piece of evidence supporting the semantic similarity between anaphoric definite DPs without demonstratives and DPs with the anaphoric demonstrative *that* is the fact that in terms of their meaning, the DPs with the anaphoric demonstrative are totally interchangeable with anaphoric definite DPs without demonstratives. That is, in DPs with the anaphoric demonstrative, the use of the demonstrative *that* is optional. By contrast, such optionality is not possible with DPs having the deictic demonstratives. Furthermore, as indicated above, there are some syntactic and prosodic similarities between anaphoric definite DPs without demonstratives and DPs with the anaphoric demonstrative *that*. As already shown, the pattern of double definiteness is obtained in both DPs. Also, as indicated earlier, with the anaphoric demonstrative *that*, the DP final definite marker similarly receives the primary stress. Importantly, prosodic properties such as contrastive accent or pitch have been previously argued to be mechanisms used to express a greater degree of referentiality (Cornish 2007). Anaphoric expressions are known for their strong level of familiarity or referentiality regrading an entity known to the speaker and the hearer (Roberts 2002, Schwarz 2009). As such, one can posit that the fact that the DP final definite marker receives the primary stress in the anaphoric context, as opposed to the deictic context (or indefinite contexts), is an indication of the strong level of referentiality that is involved in anaphoric definite DPs. In this regard, DPs with the anaphoric demonstrative *that* are identical to definite anaphoric DPs without demonstratives. This is in contrast with DPs having the deictic demonstratives whose DP final definite marker does not receive the primary stress. The pattern of number marking also lends support for another

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[21]The anaphoric use of demonstratives in other varieties of Kurdish has been described in previous works; see MacKenzie (1961) and Haig (2011).

syntactic similarity between anaphoric definite DPs without demonstratives and DPs with the anaphoric demonstrative. As we will see in section 6.2, in their number marking, both DPs show an identical pattern.

These observations generally support the claim that Laki demonstratives can have either deictic or anaphoric references. In the anaphoric sense, the DPs, with or without the anaphoric demonstrative, show similar patterns. These similarities require the postulation of a D head with the same featural properties in the two anaphoric DPs.

It is worth noting that the anaphoricity of demonstratives has been argued in previous works. As argued by Lyons (1999), Alexiadou et al. (2007), Schwarz (2009), Cornish (2011), among many others for several languages, beside the deictic property, demonstratives can express anaphoricity. In some languages, the importance of the use of demonstratives as anaphoric expressions is even more substantial. For example, in Mandarin, the anaphoric definiteness is expressed only by the use of a demonstrative (see Jenks 2018 for discussion).

6.1 Accounting for demonstratives: Selection and Agreement

In light of these observations, I consider demonstratives as definite elements, and distinguish them in terms of the definite features they express. In Laki, the demonstrative i 'this' can express only the deictic definite property (i.e., $[DEF]_{deictic}$). The demonstrative a 'that' can be the expression of both deictic and anaphoric definite properties (i.e., $[DEF]_{deictic}$ and $[DEF]_{anaphoric}$).[22]

Furthermore, I propose a distinction between the DP final definite markers as anaphoric versus deictic. As argued in section 5.1, the valued definiteness feature on the anaphoric definite D is assumed to be $[DEF]_{anaphoric}$, and the valued definiteness feature on the deictic definite D is assumed to be $[DEF]_{deictic}$. I also propose a selectional requirement for Laki demonstratives. Thus, the demonstratives are claimed to select for a definite DP complement. The deictic demonstratives (i.e. i 'this' and the deictic a 'that') select for a deictic definite DP, and the anaphoric demonstrative selects for an anaphoric definite DP. The anaphoric versus deictic

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[22]There seems to be a constrained use of the demonstrative *this* which appears to be anaphoric and seems to have a limited use. Consider a speaker talking about a smart boy physically absent and unknown to the hearer. The hearer asks 'where does this smart boy study?', as shown in the following example in (i).

(i) i   kor bāhuš-a a ku   dars-a   ma-xwan-i?
    this boy smart-DEF at where study-SP DUR-read.PRS-3SG
    'Where does this smart boy study?

In this context, although *kor* 'boy' is not physically present, the demonstrative i 'this' is used. However, there is no definite agreement and the DP final definite marker is unstressed, like what we have seen in the deictic use of the demonstratives. This raises the question of whether there is a semantic difference between these seemingly anaphoric uses which can justify the absence of the definite agreement and the deictic pattern of stress assignment. I leave a closer examination of this question to future research.

type of the DP is determined by the valued definiteness feature on its D head (having either $[DEF]_{anaphoric}$ or $[DEF]_{deictic}$). Furthermore, I take the demonstratives to be merged high (following Julien 2005 for Scandinavian). In this configuration, the demonstrative holds a selectional relation with its DP complement. It should be noted that under several approaches, demonstratives are taken to be specifiers. Some authors in particular have argued for a low merge position for demonstratives. For example, for Modern Greek, Bernstein (1997), Brugè (2002), Giusti (2002) and Alexiadou et al. (2007) propose that demonstratives are merged in the specifier of a low functional category. Here, however, given the obligatory definiteness of the DP, as well as the identical nature of the definite feature on D and Dem, a selectional account that takes demonstratives as high elements seems to be more motivated. The following diagrams illustrate the selectional requirement in DPs with both types of demonstratives.

(78) Demonstratives selecting for definite DPs
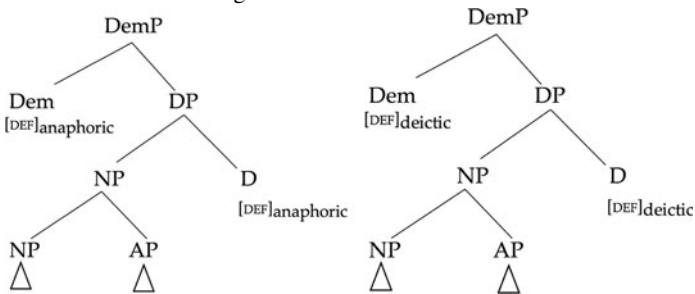
As indicated in sections 5.1 and 5.2, given the strong referentiality of anaphoric definite DPs, the unvalued [uN] feature is only assumed for the anaphoric definite D. As such, D is considered as the probe establishing a downward Agreement with the noun. Moreover, nouns are always assumed to merge with a [uDEF] feature which is valued as a reflex of the probe by D, against the valued definiteness feature on D. These assumptions along with the selectional requirement of the demonstratives (78) predict 1) the establishment of Agreement in a DP selected by the anaphoric demonstrative, and 2) the failure of Agreement in a DP selected by the deictic demonstrative. The failure of Agreement in the context of the deictic demonstrative is due to the absence of the uninterpretable [uN] feature on the deictic D and hence the lack of probing by the deictic D (hence no reflex). As already shown in examples given in this section, these predictions are borne out. While the pattern of double definiteness is obtained with the anaphoric demonstrative, it is not obtained with the deictic demonstrative. The analysis proposed for the anaphoric definite DPs in section 5.1 is extended to the DPs with the anaphoric demonstrative (79a). Regarding the deictic definite DPs, similar to the account proposed for the indefinite DPs in section 5.2, I posit that in the absence of Agreement probed by D, there is no reflex. As such, the [uDEF] feature on the noun remains unvalued. To avoid the ill-formedness of the DP, the [uDEF] feature on the noun is deleted, as shown in (79b) (along the lines of Preminger 2009, 2011).

(79) a. Deriving double definiteness   b. The failure of Agreement
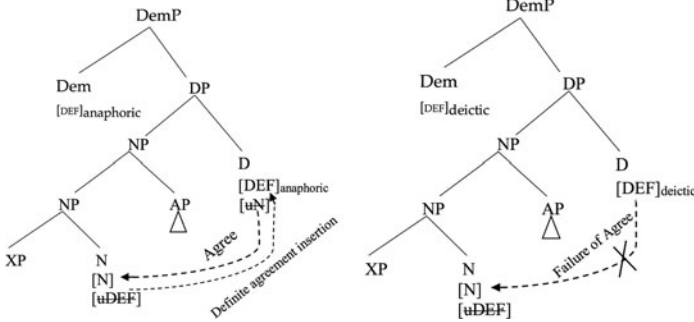
In the following section, I examine the pattern of number marking in the context of demonstratives. The facts show that number marking in DPs with the anaphoric demonstrative *that* is completely identical to the pattern of number marking in the anaphoric definite DP without demonstrative. The data provides support for the claim that the strong [uNUM] feature on the anaphoric definite D consistently leads to the Num head movement to D in anaphoric definite DPs.

6.2   Number marking in the context of demonstratives

In section 5.3, I argued for the head movement analysis of Num in the definite context triggered by the strong [uNUM] feature on D. Let us reconsider the distribution of number in the context of demonstratives.

The distribution of number in the context of demonstratives depends on the anaphoric-deictic distinction of the demonstratives. In (80)–(81), the demonstratives have the deictic reference. In this context, the plural marker -*al* appears on the noun. By contrast, in (82), the demonstrative *a* 'that' has the anaphoric reference, and the plural marker is realized phrase-finally, identical to the pattern observed in the definite plural DP in section 5.3.

(80) a   māl-al   kalen-a   (81) i   māl-al   kalen-a
      that   house-PL   big-DEF   this house-PL big-DEF
      'those big houses'   'these big houses'

(82) a   māl-a   kalen-ela
      that   house-DEF   big-PL.DEF
      'those big houses'

Considering the head movement analysis for number marking, the patterns in (80)–(82), raise the question of what prevents the movement of number to D in the deictic environment. With respect to this data set, I postulate that the strong [uNUM] feature is limited to the anaphoric D (i.e., the definite DP without demonstrative and the DP with the anaphoric demonstrative). The following examples show the distribution of number in definite and indefinite DPs (83)–(84), as already shown in section 5.3.

(83) māl-a   kalen-ela   (84) māl-al   kalen-i
     house-DEF big-PL.DEF   house-PL big-INDEF
     'the big houses'   'some big houses'

These examples suggest that the number distribution in DPs with the deictic demonstratives (80)–(81) patterns with the expression of number in indefinite DPs (84) and the number marking in DPs with the anaphoric demonstrative (82) patterns with the number expression in definite DPs without demonstrative (83). Crucially, the latter follows from the fact that these two DPs are both anaphoric definite and hence their D head is assumed to be identical and have a strong [uNUM] feature triggering the movement of Num to D.

In this study, the head movement of Num and double definiteness both were shown to be obtained only in anaphoric definite DPs. This finding raises an interesting question of why such patterns arise only in DPs with the anaphoric definite reference. This calls for an examination of wider cross-linguistic data, to explore if beyond a parametric account, the effects of anaphoricity could be observed and explained in a larger empirical scope.

7. CONCLUSION

In this article, I examined definiteness along with other nominal projections influencing definite marking. I argued that despite the surface similarities of the double definiteness in Scandinavian and Laki, their definite marking diverges in some empirical aspects. I approached Laki double definiteness through an Agreement account. The Agreement was claimed to be established only in anaphoric definite DPs and was argued to fail in deictic definite and indefinite DPs due to the lack of probing by D. The failure of Agreement in such DPs was argued to be the result of the absence of the unvalued [uN] feature on the indefinite and the deictic definite D.

Furthermore, I argued for two types of definite feature associated with the Laki demonstratives: $[DEF]_{deictic}$ and $[DEF]_{anaphoric}$. The demonstrative *i* 'this' was argued to express only the deictic definite feature. By contrast, the demonstrative *a* 'that' was argued to express both definite features. Regarding the co-occurrence of demonstratives and the DP final definite marker, I proposed a selectional requirement accounting for the obligatory co-occurrence of the demonstratives and the DP final definite marker -*a*. Furthermore, in the context of demonstratives, the D head was also argued to express two definite features (i.e., deictic and anaphoric). The insertion of either of these DP final definite markers was argued to align with the definite feature expressed by the demonstrative. I also argued that the pattern of double definiteness is obtained only in DPs with the anaphoric demonstrative. This pattern provided support for the generalization that double definiteness is restricted to the anaphoricity of the DP. In addition, I proposed a strong [uNUM] feature on the anaphoric D, leading to Num head movement to D only in the anaphoric definite DP.

The patterns investigated in this article generally showcase the contribution of the anaphoricity to the structure of the DP. Furthermore, the divergence of Laki definiteness from the previously attested patterns contributes to our cross-linguistic

understanding of definiteness and the arrays of its possible patterns in a broader empirical domain.

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