

## Haplogy and local dislocation in Turkish: Evidence from associative plural constructions

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**Abstract.** In Turkish, a possessed kinship term (e.g. *anne-m* ‘mother-pos.1sg’) can serve as a base to the associative plural suffix. However, forms where (i) an associative plural suffix follows a plural agreement suffix or (ii) the associative plural suffix *-lAr* follows the possessive marker *-(s)I* are ungrammatical. This study investigates the source of these gaps and argues that (i) the ungrammaticality of the forms in the first group arises from the structural adjacency of two [+plural] features, and (ii) the ungrammaticality of forms in the second group is due to a ban on the suffix order *\*-(s)I+lAr*, which can be repaired as *-lAr+(s)I*. We argue that the first grammatical constraint applies at the level of abstract features (i.e. morphosyntax) whereas the second constraint applies at the form level (i.e. morphophonology).

**Keywords.** morphology; defectivity; haplogy; local dislocation; associative plurals

**1. Introduction.** We can inflect forms we have never seen or heard before when required by grammar. However, this is not always the case: some forms that are expected to be generated are ungrammatical. Such forms are called *ineffable* or *defective* in the literature (Baerman et al. 2010; Fanselow & Féry 2002; Sims 2015).

One such case of defectiveness is observed in the paradigm of associative plural constructions (henceforth APCs) in Turkish. Associative plural words are derived by combining an associative plural suffix with a stem that denotes a definite individual in Turkish. A group of possible stems comprises a kinship denoting noun followed by a possessive person/number agreement suffix. However, as illustrated in (1), the stem in an associative plural word can only bear a singular agreement marker: when there is a plural possessive agreement marker in the stem, as in (1-b), the form is ungrammatical.<sup>1</sup>

- |        |                                |    |                                 |
|--------|--------------------------------|----|---------------------------------|
| (1) a. | anne-m-ler                     | b. | *anne-miz-ler                   |
|        | mother-POSS.1SG-APL            |    | mother-POSS.1PL-APL             |
|        | ‘my mother and her associates’ |    | ‘our mother and her associates’ |

The contrast in (1) illustrates that the nominal root of an APC can be marked with a singular agreement marker; however, a plural agreement marker is not allowed in the same position. This raises the question of why plural agreement leads to ungrammaticality in APCs in Turkish. Is it the abstract features or the form of the plural agreement that is problematic? Attempting to answer this question, I argue that the data is best explained by a ban on two structurally adjacent plural features in Turkish. By first eliminating possible sources such as phonology and semantics, I demonstrate that in the derivation of an APC with a plural agreement marker (henceforth plural

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<sup>1</sup> The same pattern has been reported for Hungarian, too (Lewis 2023), which might reflect a tendency that is not language specific. However, more languages from diverse families need to be investigated in order to see if there is a typological tendency for plural APCs to be ungrammatical especially in languages with synthetically formed APCs.

APC), such as in (1-b), the plural agreement feature [+plural] and the associative plural feature [+plural] become adjacent prior to Vocabulary Insertion. I argue that this configuration violates a ban on two structurally adjacent [+plural] features and this is the source of ungrammaticality in plural APCs in Turkish.

In what follows, I will first introduce APCs formed with *-lAr* and the gaps in their paradigm in Section 2. In Section 3, I discuss the sources of defectiveness and provide an analysis for the gaps, arguing that while the ungrammaticality in the 3SG APCs formed with *-lAr* is morphophonological, the gaps in the APCs with a plural agreement marker are morphosyntactically motivated. I discuss potential problems in Section 4. Section 5 concludes.

**2. Associative Plural Constructions in Turkish.** Turkish patterns with many other languages in exhibiting two types of plurality: additive and associative. Although it realizes both types of plurality with the same form, *-lAr*, Turkish differentiates between the additive *-lAr* and associative *-lAr* syntactically and semantically (Görgülü 2011) (for other languages see Cinque (2018); Corbett (2000); Dékány (2021), among others). The contrast between them is illustrated in (2).

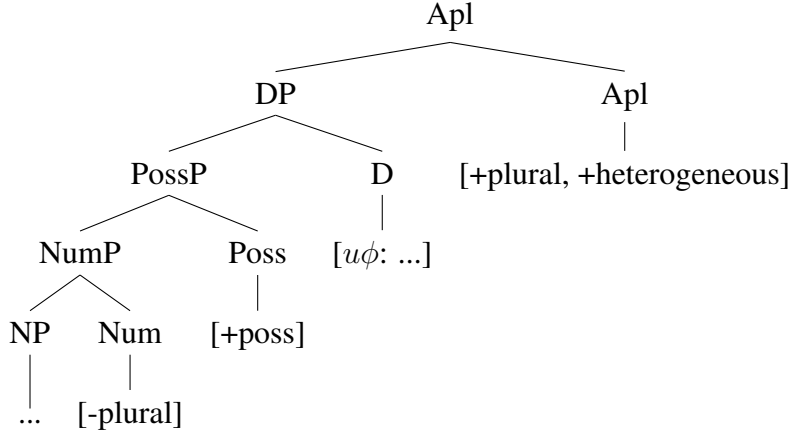
- |   |  |
|---|--|
| <p>(2) a. <i>Additive Plural</i><br/>         abla-lar-ım<br/>         sister-PL-POSS.1SG<br/>         ‘my sisters’</p> | <p>b. <i>Associative Plural</i><br/>         abla-m-lar<br/>         sister-POSS.1SG-APL<br/>         ‘my sister and her associates’</p> |
|---|--|

(2-a) exemplifies that *-lAr* is interpreted as additive plural when preceding the possessive agreement suffix. The additive plural is attached to a stem *X* and returns a set of individuals in which every individual has the property denoted by *X*. In this particular example, *ablalar* ‘sisters’ denotes a set of individuals where every individual is necessarily a sister. This additive plural interpretation of *-lAr* is possible only if it precedes the possessive agreement suffix in such constructions (Görgülü 2011).

On the other hand, when *-lAr* follows the possessive agreement suffix, it is interpreted as associative plural (2-b) – in fact, *-lAr* can be interpreted as associative plural only in this position. Hence, the associative plural combines with a referential, individual denoting stem *X* and returns a *plural individual* consisting of the focal referent ‘*X*’ and ‘*X*’s contextually defined associates’. To exemplify, in (2-b), the focal referent is the definite noun *ablam* ‘my sister’. The associative *-lAr* is attached to the stem *ablam*, and returns the plural individual ‘my sister and her associates’. These associates might be the focal referent’s family or friends depending on the context. Thus, the plural individual formed by the associate plural phrase is characteristically heterogeneous. That is, except the focal referent, an individual part of the plural individual need not have the property of being a sister, unlike in the additive plural construction in (2-a).

Hence, two major properties differentiate the associative plural from the additive: (i) the associative *-lAr* combines with a referential nominal and (ii) the associative *-lAr* follows the possessive agreement marker. Given that referentiality and genitive-possessive agreement are DP level phenomena (Arslan-Kechriotis 2009; Öztürk & Taylan 2016), the associative plural head is merged above DP. Moreover, since the additive plural attaches to a predicate that denotes a property (set of individuals) and precedes the possessive marker, it needs to be merged below DP. Given these observations, I propose the structure in (3) for Turkish associative plurals, which complies with the functional hierarchy proposed in previous studies on associative plurals both in Turkish (Görgülü 2011) and in other languages (Cinque 2018; Dékány 2021).

(3)



In (3), the additive number feature (it can only be [-plural] inside associative plurals) resides under Num, which takes NP as complement, and is represented by the feature [-plural]. This is followed by the heads of PossP and DP, which host [+poss] and  $\phi$ -agreement features, respectively. Finally, the associative plural head Apl, which comprises [+plural] and [+heterogeneous] features, merges with DP. [+plural] feature under Apl assumes the same function as in under Num; it pluralizes its argument. [+heterogeneous] feature contributes the meaning that differentiates associatives from additives. It makes sure that the plural individual is heterogeneously formed in that it consists of a focal referent and this referent's associates. Furthermore, the proposal that the same feature, [+plural], is found both in the associative and additive plural also helps explain that they are realized by the same form in Turkish, as well as in many other languages (see also Dékány (2021) for a similar proposal in Hungarian). Under the assumptions of a realizational theory of Morphology like Distributed Morphology (Halle & Marantz 1993), their syncretism can be simply explained by positing a single vocabulary item, as in (4), which would be inserted in both of the terminals Num and Apl if Num also hosted [+plural] feature in a structure like (3) by Subset Principle (Halle & Marantz 1993; Harley & Noyer 1999)<sup>2</sup>:

(4) [+plural]  $\longleftrightarrow$  -lAr

2.1. GAPS. According to the proposed structure in (3), the possessive agreement morpheme under D head does not have a restriction. However, the paradigm in Table 1 illustrates that the associative plural *-lAr* cannot be followed by a 3SG, 1PL, 2PL or 3PL possessive agreement suffix: these forms are judged to be ungrammatical by native speakers of Turkish and this pattern is observed for all kinship terms that can be the root of the associative plural phrases formed with *-lAr*.

	SG	PL
1	(benim) abla-m-lar	(bizim) *abla-mız-lar
2	(senin) abla-n-lar	(sizin) *abla-nız-lar
3	(onun) *abla-sı-lar	(onların) *abla-ları-lar

Table 1. The paradigm of the associative plural construction *abla*-POSS-LAR

<sup>2</sup> However, also see Lewis (2023) for a different analysis for why the forms of additive and associative plural markers are syncretic in some languages.

The shape of the paradigm in Table 1 raises the questions of “Why is the paradigm incomplete?” and “Why are some forms ungrammatical?”. To answer these questions, one needs to know if the ungrammatical forms are *expected* by grammar to start with, given that a paradigm cannot be incomplete if the missing word forms are not expected to exist in the first place.

An expected form can be defined as one that is required by morphosyntax in order to express a semantically/pragmatically motivated utterance (Sims 2015). Therefore, two requirements determine if a form is *expected*; one is morphosyntactic and the other is semantic/pragmatic. First, it is uncontroversial that all nouns that can be the root of associative plural constructions, such as *abla* ‘sister’, can be inflected in Turkish for all person/number features in possessive constructions elsewhere (Table 2). In fact, they are ungrammatical if they are not inflected for the appropriate person/number features when required.

	SG	PL
1	abla-m	abla-mız
2	abla-n	abla-nız
3	abla-sı	abla-ları

Table 2. The possessive agreement paradigm of *abla* ‘sister’

Hence, we expect the stems of associative plurals to be able to bear any possessive agreement marker when the necessary conditions are met. However, it is not the case. We see that even though the ungrammatical forms in Table 1 are morphosyntactically *expected* in Turkish due to possessive agreement, they are ungrammatical.

The second requirement is semantic/pragmatic. Are the meanings of the ungrammatical forms needed or motivated in the first place? There is no a priori reason for why stems bearing a plural agreement marker such as in (5) should not be compatible with the associative plural meaning or why they should not be well-motivated to be used given that ‘our sister and her associates’ may be as well-motivated as ‘our sister and her associates’ in some contexts.

- |   |   |
|---|---|
| <p>(5) *abla-mız-lar<br/>sister-POS.1PL-APL<br/>‘our sister and her associates’</p> | <p>(6) abla-m-lar<br/>sister-POS.1SG-APL<br/>‘my sister and her associates’</p> |
|---|---|

Thus, there is no a priori morphosyntactic or semantic/pragmatic reason for why some forms should not exist in the paradigm of APCs: they are all *expected* to exist. Nevertheless, some forms are ungrammatical, constituting a case of *defectiveness* (Sims 2015).

**3. The analysis.** It has been argued that defectiveness may be caused by different components of grammar (see Sims (2015) for a typological survey of defectiveness). Studies suggest that while one form might be ungrammatical due to the phonological rules of a language (Orgun & Sprouse 1999), another form might be ungrammatical due to its syntactic rules (Kastner & Zu 2017). Therefore, it is not possible to know the source of defectiveness in a form without a careful analysis of its derivation. In the case of APCs, it might be that the ungrammatical forms are morphosyntactically ill-formed because of a rule in Turkish prohibiting the associative plural features and some agreement features to be in a certain configuration; or, it might be that the sequence of sounds created by certain exponents in ungrammatical associative plurals do not conform to the phonological well-formedness requirements in Turkish.

3.1. POSSIBLE SOURCES OF DEFECTIVENESS. I adopt the framework of Distributed Morphology (DM) for the analysis (Halle & Marantz 1993; Harley & Noyer 1999; Embick & Noyer 2001; Nevins & Arregi 2012). DM assumes that the derivation starts with Syntax, which builds the hierarchical structure by combining abstract features. Then, it sends the syntactic structure to Spell-Out (PF branch), where Morphology applies the necessary post-syntactic operations on the structure, linearizes it, and inserts vocabulary items into its terminal nodes. I use the term *morphosyntax* for the component that is sensitive to abstract features, and *morphophonology* for the component that is sensitive to the morphemes, words, and their forms.

3.1.1. MORPHOPHONOLOGY. Recall the forms of the ungrammatical associative plurals:

- (7) a. \*X-si-ler  
X-POS.3SG-APL  
b. \*X-miz-ler  
X-POS.1PL-APL  
c. \*X-niz-ler  
X-POS.2PL-APL  
d. \*X-leri-ler  
X-POS.3PL-APL

Is it the phonological form of the associative plural morpheme, i.e. *-lar*, that causes ungrammaticality when preceded by the 3SG, 1PL, 2PL, or 3PL possessive agreement morpheme? The most straightforward evidence for the role of morphophonology in the distribution of APCs comes from the dialectal variant of the associative plural marker, *-gil*. In addition to *-lar*, some speakers of Turkish also use the suffix *-gil* to express the meaning of associative plurality. Even though there is some difference between these exponents with regards to formality and distribution, they can be used interchangeably in many cases as in (8).

- (8) a. (Ben-im) baba-m-**lar** geldi.  
(I-GEN) father-POSS.1SG-**APL** came  
b. (Ben-im) baba-m-**gil** geldi.  
(I-GEN) father-POSS.1SG-**APL** came  
'My father and his associates came.'

Given the parallel between the word-internal positions and meanings of *-gil* and *-lar*, we can infer that they share the morphosyntactic and semantic features of associative plurality despite the fact that they are phonologically different. Therefore, if a difference is observed in the shape of their paradigms, this must be due to the difference in their forms; not due to the morphosyntactic or semantic features of associative plurality. When we compare the paradigms of *-lar* (Table 3) and *-gil* (Table 4), we see that they differ only in the grammaticality of the 3SG form out of six possible forms.

	SG	PL
<b>1</b>	X-m-lar	*X-miz-lar
<b>2</b>	X-n-lar	*X-niz-lar
<b>3</b>	*X-si-lar	*X-ları-lar

Table 3. The paradigm of the associative *-lar*.

	SG	PL
<b>1</b>	X-m-gil	*X-miz-gil
<b>2</b>	X-n-gil	*X-niz-gil
<b>3</b>	X-si-gil	*X-ları-gil

Table 4. The paradigm of the associative *-gil*.

In both paradigms, 1SG and 2SG forms are grammatical whereas 1PL, 2PL, and 3PL forms are ungrammatical. That is, the paradigms of *-gil* and *-lar* diverge only in the grammaticality of the 3SG form. Associative plural word forms where the root is followed by the so-called third

There are two major pieces of evidence supporting *\*(s)I+IAr* hypothesis. The first one has long been noted whereas the second is based on a novel observation. First, as shown in (9), the so-called compound/possessive marker *-(s)I* cannot be followed by the plural marker *-IAr* when a compound is pluralized (Göksel 1988; Göksel & Haznedar 2007; Kharytonava 2011).

- Rather, as (10) illustrates, -(s)I needs to follow -lAr when a compound is pluralized.

- Arguing that the so-called compound/possessive marker should precede the plural marker in examples like (10), this observation has led Kharytonava (2011) to propose that the ungrammatical suffix order *\*(s)I+IAr* is repaired as *-IAr+(s)I* with a local dislocation operation (Embick & Noyer 2007) after Vocabulary Insertion in the framework of Distributed Morphology.

However, another piece of evidence attested directly in native speaker intuitions about associative plurals strongly suggests that there should indeed be a local dislocation rule operating on *\*(s)I+IAr*. Recall that based on the morphosyntactic structure of APCs and other forms in the paradigm, the associative plural marker is expected to follow the possessive agreement marker (as can be seen in 3SG APC forms derived with *-gil*). Accordingly, the expected order in 3SG APCs is *\*(s)I+IAr*; yet, as illustrated in (11-a), this form is ungrammatical. Interestingly, some Turkish speakers use forms such as in (11-b), where the suffix order is *-IAr+(s)I*, to express the intended meaning of the ungrammatical 3SG associative plurals exemplified in (11-a) instead.<sup>3</sup>

- <sup>3</sup> Some might counter that *-lAr* can be the exponent of the additive plural in these words since it precedes the possessive marker. However, note that (11-b) is interpreted as an APC: the plural individual denoted by *abileri* may include only one brother and his friends, instead of multiple brothers, which is the only meaning that can be derived by the additive plural. Therefore, *-lAr* has to be the associative plural marker in (11-b).

Drawing upon this novel observation, and building on the insights of Kharytonava (2011), I argue that there is a repair mechanism that changes the illicit suffix order  $^{*-(s)I+IAr}$  into the well-formed suffix order  $-IAr+(s)I$  in Turkish.<sup>4</sup> In particular, I argue that it is this rule that changes the expected order  $^{*-(s)I+IAr}$  into  $-IAr+(s)I$  when deriving words like *abileri* in (11-b).

Before illustrating how this repair mechanism works and how it can be formulated, let us discuss the morphemes and their exponents in APCs like in (11). First, following Öztürk & Taylan (2016), I assume that third person singular possessive marker is null in Turkish. There is both typological and language-internal evidence for this argument. First, third person singular agreement is mostly null in the verbal domain in Turkish (Göksel & Kerslake 2005) and if an agreement marker is null in the verbal paradigm in a language, it tends to be null in the nominal paradigm, too (Siewierska 2010). Therefore, as Öztürk & Taylan (2016) point out, the third person singular possessive agreement marker is expected to have a null exponent in Turkish. Second, Öztürk & Taylan (2016) extensively discuss the distribution of  $-(s)I$  in a variety of possessive phrases in Turkish. Based on these data, they argue that  $-(s)I$  in the third person singular agreeing nominals, which is traditionally known as the compound marker, is actually the exponent of the possessive marker whereas 3SG agreement morpheme has no overt exponent, as shown in (12).

- (12)    *Abi-si-∅*                      *gel-di-∅*.  
          brother-POSS-3SG come-PST-3SG  
          ‘His/Her brother came.’

Besides  $-(s)I$  being the exponent of the possessive marker, there is ample evidence that  $-IAr$  is the exponent of the plural feature in Turkish: recall that both the additive plural and the associative plural are realized as  $-IAr$ . Given these observations, I argue that the so-called 3PL possessive suffix  $-IArI$  is in fact decomposed into  $-IAr$  and  $-(s)I$ , and that  $-(s)I$  is expected to precede  $-IAr$  based on the syntactic structure of possessive phrases. In what follows, I will demonstrate how this analysis explains why the grammatical form of 3SG APCs is like *abileri* ‘her brother and his associates’, provided in (11-b), rather than  $^{*abisiler}$ , provided in (11-a).

Let us start with the vocabulary items that are needed for deriving 3SG APCs. To spell-out the structure of a 3SG APC, we need vocabulary items (VIs) for the following morphemes in addition to the root: singular (the possessee noun phrase is singular), possessive, 3SG agreement, and associative plural. I assume that singular is [-plural], and since singular is unmarked in Turkish, I assume that the exponent of [-plural] is null. In addition, given the foregoing discussion, I posit that the exponent of the possessive marker, which consists of the feature [+poss], is  $-(s)I$ . Following Nevins (2007), among others, I assume that the third person is the absence of two features, consisting of the feature set [-participant, -proximate]. Furthermore, for simplicity, I assume that there is no specific VI exclusively for either third person or third person singular: when there is third person singular agreement, i.e., the feature set [-participant, -proximate, -plural], the VI for [-plural] is inserted to spell out this feature set by Subset Principle. Given that both singular and 3SG morphemes are realized by a null exponent, and they share the feature [-plural], this seems to be the most economical solution. Finally, as argued before, I assume that [+plural] is exponed by  $-IAr$ , which also realizes the associative plural by Subset Principle due to the absence of a vocabulary item for [+heterogeneous]. Hence, I propose the VIs in (13) that are used in APCs

<sup>4</sup> The initial consonant of the suffix  $-(s)I$  is deleted when it is attached to a stem that ends in a consonant. Therefore, when the order of  $-(s)I$  and  $-IAr$  changes,  $-IAr+(s)I$  takes the surface form  $-IArI$  given that  $-IAr$  ends in a consonant.

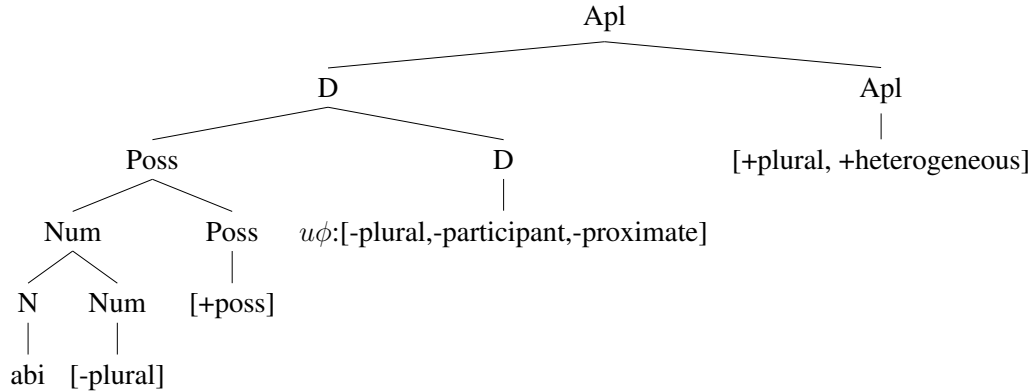
that have a third person singular possessor in Turkish.<sup>5</sup>

(13) *The list of VIs that are used in 3SG APCs*

- [-plural]  $\longleftrightarrow \emptyset$   
 [+plural]  $\longleftrightarrow$  -lAr  
 [+poss]  $\longleftrightarrow$  -sI

With these vocabulary items, I return to the structure of the morphological word *abileri* ‘her brother and his associates’ before Vocabulary Insertion. A morphological word in DM is the highest terminal node that is not dominated by another terminal node and it is formed by head-movement. A morpheme, on the other hand, is the feature set under a simplex terminal node that does not dominate another terminal node (Embick & Noyer 2001). By this definition, a morphologically complex word is a complex terminal consisting of multiple terminals, each of which realizes a morpheme. Therefore, given that the 3SG APC *abileri* is a complex word that consists of multiple morphemes, I posit that it is formed by the movement of all the heads –except those dominated by the  $DP_i$  in the specifier position since it is a separate morphological word– into the highest head, Apl. This gives us the structure in (14) for the complex head Apl, which represents the morphological word *abileri* ‘her brother and his associates’.

(14)



In this structure, N is spelled-out by *abi* ‘brother’.<sup>6</sup> Num hosts [-plural] and is inserted a null exponent based on the VIs in (13). Poss hosts [+poss] and it is inserted -(s)I given the VI for [+poss]. D hosts third person singular agreement features [-plural, -participant, -proximate], but it does not have a complete match in the set of VIs. Therefore, the exponent of [-plural], which is null, is inserted into the terminal node D by Subset Principle since [-plural] is a subset of the feature set {-plural, -participant, -proximate} under D and there is no more specific VI that can

<sup>5</sup> In this analysis, when the possessor is first or second person, we need to assume that the possessive marker has a null allomorph in the environment of first and second person features, given that it is phonologically absent when followed by a first or second person possessive agreement suffix (see Tat & Kornfilt (2018)). Furthermore, as is well known (Kornfilt 1986; Kunduracı 2013), the possessive suffix needs to be null also in the environment of another identical possessive suffix (e.g., in recursive compounds). However, I am not able to discuss these details due to space limitation. Therefore, for the sake of exposition, I gloss the possessive agreement markers of first, second and third (sg) persons as if they spell-out POSS as a portmanteau throughout the paper.

<sup>6</sup> In DM, a root needs to merge with a categorizing head that categorizes it as noun, adjective, etc. Hence, in (14), there minimally needs to be a categorizing head N between the root and Num in the functional hierarchy. However, I represent the root as N for simplicity since it does not bear immediate relevance for the current discussion.



be inserted for this feature set. Finally, Apl hosts the feature set [+plural, +heterogeneous] and, again, there is no exact match for it in the list of VIs. Therefore, by Subset Principle, -lAr, the exponent of [+plural] is inserted into Apl for the feature set [+plural, +heterogeneous]. Thus, vocabulary insertion gives us the ungrammatical morphological word \**abisiler*, which is provided in (15-a) with the glosses updated based on the foregoing discussion, for ‘her brother and his associates’. However, if we apply the proposed repair to turn the illicit suffix order  $-(s)I+lAr$  into  $-lAr+(s)I$ , we derive the grammatical string *abileri* in (15-b).

- |      |    |  |    |  |
|------|----|--|----|--|
| (15) | a. | *abi-si- $\emptyset$ -ler<br>brother-POSS-3SG-APL<br>Intended: ‘her brother and his assc.’ | b. | abi-ler-i<br>brother-APL-POSS(.3SG)<br>‘her brother and his assc.’ |
|------|----|--|----|--|

Therefore, I argue that 3SG APCs that follow the template  $X+(s)I+lAr$  – which is the expected order of morphemes given the morpho-syntactic hierarchy – are ungrammatical due to the morphophonological ill-formedness of the suffix order  $*(s)I+lAr$ . I propose that the illicit suffix order  $*(s)I+lAr$  is repaired by turning the order into  $-lAr+(s)I$ . That is, the linear order in 3SG APCs, which seemingly violates the generalization that linear order of affixes *mirror* the syntactic structure (Baker 1985; Halle & Marantz 1993; Embick 2010), is changed by a repair mechanism that turns the morphophonologically illicit order  $*(s)I+lAr$  into the morphophonologically licit order  $-lAr+(s)I$ .

As I have argued by discussing examples (9) and (10), the restriction that  $-(s)I+lAr$  is not a grammatical sequence of exponents in Turkish is motivated independently of the ungrammatical 3SG APCs that end in  $*(s)I+lAr$ . Hence, this rule is also necessary to explain the suffix order in pluralized compounds (see Kharytonava (2011)). However, note that this restriction cannot apply to every word form that ends in  $(s)I+lAr$ : the phonological sequence is not ungrammatical as long as  $(s)I$  is a part of the root, as illustrated in (16).

- (16) yüksek ısı-lar  
high temperature-PL  
‘high temperatures’

Therefore, Turkish does not prohibit the roots that end in  $(s)I$  and are followed by -lAr; it prohibits the words in which the suffix  $-(s)I$  is followed by the suffix -lAr. Since the prohibition applies only when both  $-(s)I$  and -lAr are adjacent suffixes, it cannot be achieved with a purely phonological constraint that does not refer to “suffixhood”. Furthermore, given the foregoing discussion on the repaired 3SG APC, we need to have a mechanism that ensures that the banned  $*(s)I+lAr$  sequence is repaired as  $-lAr+(s)I$ , so that the intended meaning can still be expressed. Given these observations, following (Kharytonava 2011), I propose that the mechanism that repairs  $*(s)I+lAr$  as  $-lAr+(s)I$  can be formulated as a morphophonological *local dislocation* rule (Embick & Noyer 2007) as illustrated in (17). This rule applies during linearization and changes the order between the adjacent morphemes  $-(s)I$  and -lAr iff  $-(s)I$  precedes -lAr in a morphological word (a complex syntactic terminal).

- (17) *Local Dislocation Rule*  
 $-(s)I * -lAr \longrightarrow -lAr * -(s)I$

With the rule in (17), we account for the observations that APCs in which the associative plural marker -lAr immediately follows the possessive marker -sI are ungrammatical and that this illicit

sequence can be repaired by changing the order of these morphemes. In addition, this rule is not restricted to associative plurals and it explains why we do not find the morpheme sequence  $(s)I-lAr$  elsewhere in Turkish.<sup>7</sup>

A systematic pattern emerges in APCs after we account for the only singular ungrammatical form: forms with singular agreement markers are grammatical whereas forms with plural agreement markers are ungrammatical. This systematicity does not relate to phonology since what is shared by the plural agreement markers is not their forms: there is no common string of sounds shared by  $-mIz$ ,  $-nIz$ , and  $-lArI$ . Instead, what they have in common is the set of abstract features of plural agreement. More specifically, APCs where a plural agreement morpheme is followed by an associative plural morpheme are ungrammatical regardless of their form. Therefore, I hypothesize that the ungrammaticality of these forms is due to the set of abstract feature(s) of the plural agreement morpheme and its position in the morphosyntactic structure. In the next section, I argue that the reason for their ungrammaticality is a morphosyntactic ban on two structurally adjacent [+plural] features in Turkish.

3.1.2. MORPHOSYNTAX. By following Öztürk and Taylan (2016), I assume that if there is a nominal argument of the NP, it is introduced in Spec, PossP. If the introduced argument has a referentiality or specificity feature, then it moves to Spec, DP to check these features. Eventually, this movement results in the valuation of the uninterpretable  $\phi$ -features of D with the  $\phi$ -features of the moved DP. In addition, as Dékány (2021) notes (p.234), there must be two meaning components for associative plurality given that two separate morphemes are used to mark associative plurality in Yu'pik (Corbett & Mithun 1996). One of the meaning components is plurality and the other is associativity. Therefore, following Dékány (2021), I assume that Apl host the features [+heterogenous] and [+plural], which express the characterizing meaning components of associatives: (i) forming plurals and (ii) forming a heterogeneous set comprising of a focal referent and his/her/their associatives. The proposed structure is repeated in (18).

With this structure, we can investigate why APCs with a plural agreement suffix are ungrammatical regardless of the form of the suffix. There are two differences between plural agreeing forms and singular agreeing forms: the former has a plural possessor and the agreement feature [+plural] under D whereas the latter has a singular possessor and the singular agreement feature

<sup>7</sup> In fact, as a reviewer keenly notes,  $-(s)I+lAr$  is grammatical when  $-(s)I$  is followed by the 3PL agreement marker  $-lAr$  in the verbal domain, as illustrated in (i-a), whereas it is ungrammatical in (i-b).

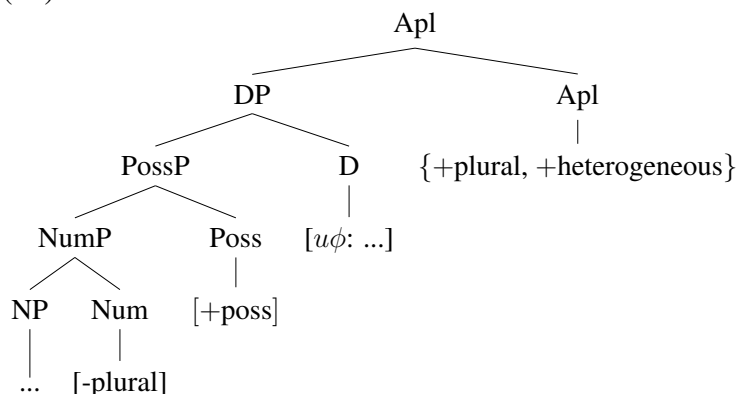
- |     |    |  |    |   |
|-----|----|--|----|---|
| (i) | a. | Ayşe ve Cem çocuk-luk arkadaş-ı-lar.<br>Ayşe and Cem child-hood friend-POS-PL<br>'Ayşe and Cem are childhood friends.' | b. | Ayşe ve Cem-in *arkadaş-ı-lar<br>Ayşe and Cem-GEN *friend-POS-PL<br>'Ayşe and Cem's friend' |
|-----|----|--|----|---|

That *arkadaşlar* in (i-a) and (i-b) look identical seems to be problematic for the local dislocation analysis. However, in reality, the two differ in their stressed syllable. Namely, in the grammatical form in (i-a),  $-(s)I$  and  $-lAr$  are in different prosodic words due to intervening TAM markers —though null— in the verbal domain (see Güneş (2021)). Thus,  $-(s)I$  bears the main stress in *arkadaşlar* in (i-a) by virtue of being in the final syllable of the first prosodic word. However, in the ungrammatical *\*arkadaşlar* in (i-b),  $-lAr$  is in the final syllable of the sole prosodic word constituting *arkadaşlar*; hence, it is  $-lAr$  that bears the stress this time (see Güneş (2021) and Kabak & Vogel (2001) for stress assignment in Turkish).

Thus, the contrast in (i) suggests that the local domain where  $*(s)I+lAr$  constraint and the local dislocation rule applies must be the prosodic word. Since the prosodic and morphological constituents of a word do not have a one-to-one correspondence (Inkelas 2014), the constraint (and the rule) should in fact be specified as follows to prevent over- or under-application:  $*(...-(s)I+lAr...)ω$ .

[-plural]. By providing data from APCs that have a plural possessor but no agreement marker, I argue that it is the agreement feature [+plural] that causes ungrammaticality in APCs in Turkish.

(18)



Öztürk & Taylan (2016) argue that some kinship terms in Turkish have two variants; one is relational and the other is non-relational. They argue that relational kinship terms agree in person and number with their possessor whereas the non-relational ones do not. For instance, *baba* in (19-a) is the relational root and *peder* in (19-b) is the non-relational root for the kinship term ‘father’.

- (19) a. ben-im baba-m  
I-GEN father-POS.1SG  
‘my father’
- b. ben-im peder-(\*im)  
I-GEN father-(\*POS.1SG)  
‘my father’

Returning to APCs, we observe that APCs with a non-relational kinship term as the stem, which do not agree with their possessor (Öztürk & Taylan 2016), provide evidence that the plural possessor does not cause ungrammaticality alone in the absence of an agreement suffix on the root. (20) illustrates that both *baba* and *peder* can occur as the roots of APCs that have a singular possessor.

- (20) a. ben-im baba-m-lar  
I-GEN father-POS.1SG-APL  
‘my father and his associates’
- b. ben-im peder-ler  
I-GEN father-APL  
‘my father and his associates’

However, (21) shows that *baba* cannot grammatically form an APC with a plural possessor while *peder* can. Therefore, the plural possessor alone cannot be the source of ungrammaticality in illicit APCs like in (21-a): a plural agreement marker is required for the form to be ungrammatical.

- (21) a. \*biz-im baba-mız-lar  
we-GEN father-POS.1PL-APL  
Intended: ‘our father and his assc.’
- b. biz-im peder-ler  
we-GEN father-APL  
‘our father and his assc.’

Thus, we can infer that the linear and/or the structural position of the plural agreement morpheme in APCs must be the source of ungrammaticality. To understand exactly how this works, we should investigate how ungrammatical APCs are derived.

Recall that words are formed via head movement in DM (Harley & Noyer 1999; Embick & Noyer 2007) and that *Apl* is the complex head that represents the associative plural word. When the morphological word that bears the associative plural suffix is formed, I propose that it has the

morphosyntactic structure in (22) based on the functional hierarchy in (18).<sup>8</sup> I also assume that this configuration is found at a stage before linearization and vocabulary insertion at PF. Thus, it has information only about abstract morphosyntactic features under terminals and their hierarchical structure.<sup>9</sup>

	[ <i>Apl</i> ]	[ <i>D</i> ]	[ <i>Poss</i> ]	[ <i>Num</i> ]	[ <i>NP</i> ]				
(22)				...	-plural	+poss	<b>+plural</b>	<b>+plural</b>	
							±participant	+heterogeneous	
							±proximate		

(22) is the structure of the terminal node that represents an associative plural word with a plural agreeing stem. The only morphosyntactic difference between such words, which are ungrammatical, and associative plural words that have a singular agreeing stem, which are grammatical, is that there is [+plural] under D in the ungrammatical ones whereas there is [-plural] in the grammatical ones. Therefore, the ungrammaticality must be due to [+plural] under D.

I argue that the ungrammaticality of these associative plural words is due to the morphosyntactic adjacency of two [+plural] features in the structure. In the structure of (22), two adjacent heads, D and Apl, host a [+plural] feature each. The [+plural] under D is a result of plural agreement and the [+plural] under Apl is the plurality feature of the associative plural morpheme. I suggest that this configuration is not licensed due to a ban which prohibits the co-occurrence of two adjacent [+plural] features under a syntactic terminal, i.e. a morphological word, in Turkish. This rule can be formulated as such:

(23)	*[ <i>Y</i>	[ <i>X</i> ...	<i>X</i> ]	<i>Y</i> ]
			+plural	+plural

The ban on the adjacency of two [+plural] features in (23) explains why grammatical word forms in which an associative plural marker follows a singular agreement marker, such as *ablamlar* ‘my sister and her associates’, become ungrammatical when the agreement marker is plural, such as in *\*ablamızlar* ‘our sister and her associates’. Following the terminology of Nevins (2012), I argue that this ban on the structural adjacency of two [+plural] features operates on morphological words (M-words) such that it refers to (a subset) of features under terminal nodes and it is phonologically insensitive (see Tat & Kornfilt (2018) for another account of haplology in Turkic).

**4. Discussion.** A potential issue<sup>10</sup> with the proposed constraint on adjacent plural features is that plural noun phrases that agree with a third person plural possessor in Turkish are expected

<sup>8</sup> The possessor in Spec, DP is not represented since it forms a separate morphological word and its only significance is to trigger plural agreement on the Apl head.

<sup>9</sup> I make this assumption in order not to take sides on the debate about where Agree takes place. Some researchers claim that agreement happens at syntax proper (Preminger 2014), and others claim that agreement is sensitive to PF-level phenomena and hence should take place when the syntactic structure is sent to PF (Bobaljik 2012). Therefore, I assume that (22) is found at a stage at PF where all agreement operations must have been completed, whether it be in syntax proper or at PF.

<sup>10</sup> A reviewer raises the question of why “honorific” pronominals such as *biz-ler* ‘we-PL’ are not deemed ungrammatical by the filter on adjacent plural features. A short answer to this question is that, if we assume, following Paparounas & Akkuş (2023), that both plural personal pronouns (e.g. *biz* ‘we’) and their formally doubly plural, honorific counterparts (e.g. *biz-ler* ‘we-PL’) comprise a single person (e.g. [1]) and number (e.g. [PL]) feature, and that they only differ in that the person number features are bundled on a single head in the former, whereas the features are distributed among different heads in the latter, the ban on adjacent plural features analysis would make the correct predictions by not ruling out grammatical forms like *biz-ler* — they only have one [PL] feature.

to have two plural suffixes: one for the additive plural and one for the plural agreement, as illustrated in (24-a). But instead, they have only one plural suffix, as shown in (24-b). Besides Turkish, this pattern is also attested in other Turkic languages such as Sakha (Vinokurova 2005; Kirby & Sevgi 2023), Yakut, and Bashkir (Johanson 2021), among others.

- |         |   |    |  |
|---------|---|----|--|
| (24) a. | (onlar-ın) *abi-ler-ler-i<br>(they-GEN) brother-PL-3PL-POSS<br>'their brothers' | b. | (onlar-ın) abi-ler-i<br>(they-GEN) brother-PL.3PL-POSS<br>'their brothers' |
|---------|---|----|--|

The surface form in (24-a) suggests that it might be ungrammatical due to the adjacency of two plural morphemes in its structure. If that is the case, the rules and vocabulary items posited so far fall short of explaining how 'their brothers' can be spelled-out grammatically with the form in (24-b). Recall that the APCs that are prohibited by the ban on two structurally adjacent [+plural] features cannot be spelled-out grammatically: their ungrammaticality cannot be repaired. Therefore, if the form in (24-a) is ungrammatical due to the same ban, we expect that it should not be repaired, in contrast with what is observed in (24-b).

At any rate, although it may be counter-intuitive at first sight, I argue that the structure of the form in (24-a) does not contain two adjacent [+plural] features and is not ungrammatical due to the ban on the structural adjacency of two [+plural] features. Namely, I argue that the adjacency of plural suffixes in these words is fed by the local dislocation rule that repairs *\*(s)I-lAr* as *-lAr-(s)I* at the linear structure after vocabulary insertion (Embick 2010). Particularly, *\*-lAr-lAr* is coalesced into *-lAr* with a morphophonological haplology rule similar to *-s*-deletion in English where *\*-s-*'s affix order is expected to occur, as in forms like *cats'* in (25), but does not (Nevins 2012).

- |      |   |                      |
|------|---|----------------------|
| (25) | the cats' feet are dirty ( <i>kæts</i> , <i>*kætsɪz</i> ) | (Nevins 2012; p.105) |
|------|---|----------------------|

Thus, I argue that the mechanism that repairs (24-a) as (24-b) is a morphophonological rule similar to the one that deletes one *-s* in forms like *cats'* in English: it deletes one of the *-lArs* after Vocabulary Insertion and the data does not constitute a problem for the current analysis since this operation applies at the form-level.

**5. Conclusion.** This article presents an analysis of an interesting *gap* in the paradigm of associative plural constructions in Turkish. I argued that a plural agreement marker and an associative plural marker cannot grammatically combine due to a ban on two adjacent plural features in Turkish. I provided evidence that this ban operates at the level of abstract features before vocabulary insertion. In addition to the systematic ungrammaticality of associative plurals with plural agreement markers, I discussed that a mismatch is observed between the affix order in associative plural constructions that have a third person singular possessor. I explained this data with a local dislocation rule, which accounts for the unexpected affix order in a wide range of word forms in Turkish. Finally, I argued that the impoverished phonological form of plural nominals that agree with a third person plural possessor stems from a haplological operation that repairs the structure by deleting one of the two identical exponents from the linear order of affixes. In line with previous research (Bobaljik 2012; Embick 2010; Kornfilt 1984; Nevins 2012; Tat & Kornfilt 2018), this case study from Turkish provides evidence that, apart from being sensitive to the locality of (identical) objects at particular, well-defined derivational stages, grammar may (or not) employ various strategies to repair ill-formed structures.

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