A ban on adjacency in Turkish

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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 the associative plural suffix follows a plural agreement suffix are ungrammatical. This study investigates the source of this systematic gap, i.e. the absence of grammatical forms for some possible combinations, and argues that the ungrammaticality arises from the structural adjacency of two [+plural] features. Hypothesizing that the ungrammaticality cannot be purely phonological, semantic, or pragmatic based on the presented data, the structure of associative plurals are analyzed in order to detect the morphosyntactic source of the ungrammaticality. It is argued that the associative plural head and the D head in the structure of associative plurals are structurally adjacent and that they both bear a plural feature when there is plural agreement under D. A prohibition on multiple structurally adjacent plural features in Turkish is posited to explain the ungrammaticality of the associative plural constructions that include a plural agreement marker.

Keywords. associative plural; morphology; phonology; defectiveness; Turkic

1. Introduction. The productivity of language is ubiquitous. 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 (Pesetsky 1997, Fanselow & Féry 2002). Defectiveness may arise from restrictions imposed on a structure at different stages of derivation. That is, the reason for the ungrammaticality of some expected forms might be phonological, morphosyntactic, or semantic. Investigating the source of these *gaps* is vital to understand the interaction between different modules of grammar (Sims 2015, Baerman et al. 2010).

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.[1]

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[1]The same pattern is also attested in Hungarian (Lewis to appear), 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 in especially languages with synthetically formed APCs.

(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 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* in Turkish (Section 2). In Section 3, I illustrate that there are some forms in the paradigm of APCs that are semantically/pragmatically expected, but ungrammatical. In Section 4, I discuss the sources of defectiveness and argue 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. Finally, I discuss the implications of my analysis in Section 5 and Section 6 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), a.o.). The contrast between them is illustrated in (2).
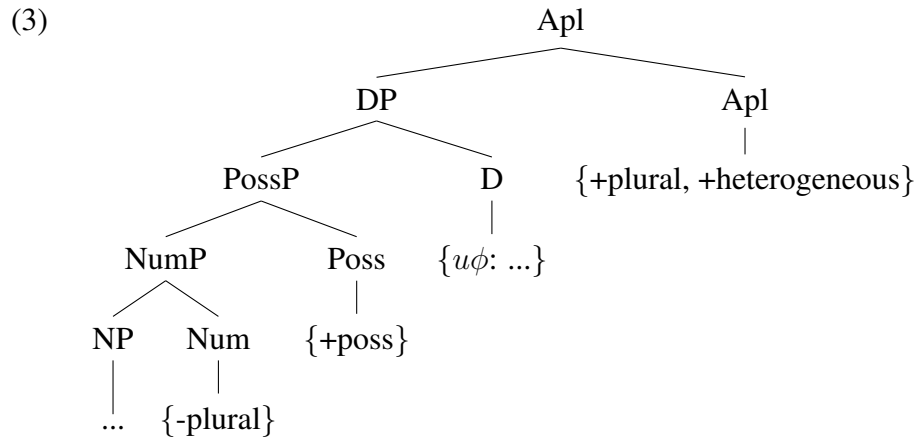
(2) a. *Additive Plural*   b. *Associative Plural*
         abla-lar-ım   abla-m-lar
         sister-PL-POSS.1SG   sister-POSS.1SG-APL
         'my sisters'   'my sister and her associates'

(2-a) exemplifies that *-lAr* is interpreted as additive plural when preceding the possessive agreeement 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)

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                            Apl
                ┌────────────┴────────────┐
              DP                          Apl
        ┌──────┴──────┐                    │
      PossP           D          {+plural, +heterogeneous}
   ┌────┴────┐        │
 NumP       Poss   {uφ: ...}
 ┌──┴──┐     │
NP    Num  {+poss}
 │     │
...  {-plural}
```

In (3), the additive plural 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 ϕ-agreement features, respectively. Finally, the associative plural head Apl, which comprises [+plural] and [+heterogeneous] features, is merged to the DP. [+plural] feature assumes the same function as in the one 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 in a structure like (3) by Subset Principle (Halle & Marantz 1993, Harley & Noyer 1999):

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

3. The 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

The shape of the paradigm in Table 1 raises the questions of "Why is the paradigm incomplete?" and "Why are ungrammatical forms ungrammatical?". To answer these questions, one needs to know if the ungrammatical forms are *expected* by grammar in the first place. This is because 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 the ungrammatical associative plural forms would not be needed. Assume the following context where an associative plural construction with the first person plural possessive suffix preceding the associative plural marker could be used: 'My brother and I are sharing an apartment. We are talking to a friend who invites us to a dinner party tonight. However, we cannot go to this dinner party since our sister and

her friends are coming over to our apartment tonight for a dinner party that we are hosting.' In this context, I can say the sentence in (5) to explain the reason for why we cannot go to our friend's dinner party:

(5) Bu akşam abla-mız   ve arkadaş-lar-ı   biz-e   yemeğ-e   gel-iyor.
     This night   sister-POS.1PL and friend-PL-POS.3SG we-DAT dinner-DAT come-IMPF
     "Tonight our sister and her friends are coming over to our place for dinner."

In the context above, an APC is also well motivated to convey the meaning 'our sister and her associates'. However, I cannot use the sentence in (6) in this context because the synthetically formed associative plural form is ungrammatical when the first person plural possessive suffix precedes the associative plural suffix.

(6) *Bu akşam abla-**mız**-lar   biz-e   yemeğ-e   gel-iyor.
     This night   sister-**POS.1PL**-APL we-DAT dinner-DAT come-IMPF
     'Tonight **our** sister and her associates are coming over to our place for dinner.'

See the contrast with sentence (7), which I can use in this context by leaving it implicit that it is not only *my* but *our* sister.

(7) Bu akşam abla-**m**-lar   biz-e   yemeğ-e   gel-iyor.
     This night   sister-**POS.1SG**-APL we-DAT dinner-DAT come-IMPF
     'Tonight **my** sister and her associates are coming over to our place for dinner.'

Hence, ungrammatical APCs like **ablamızlar* are more informative – and thus better motivated – than the grammatical APCs like *ablamlar* in such contexts; yet, we still cannot use them licitly. That is, the components of grammar relating to the use (pragmatics) or meaning (semantics) of a form suggest that these ungrammatical forms should exist; however, they do not have a grammatical form contrary to expectations. This observation indicates that the ungrammatical associative plurals are semantically/pragmatically *expected*. Therefore, 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) or *ineffability* (Pesetsky 1997).

It has been argued that defectiveness may be caused by different components of grammar (see Sims 2016 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.

Since it is not possible to know the source of defectiveness in the ungrammatical associative plural forms without detailed investigation, in the next section, I analyze their derivation. I first consider the morphophonological component and show that morphophonology is responsible for

the ungrammaticality of APCs with a third person singular possessive suffix. Following that, I move on to morphosyntax and argue that it is the structural adjacency of two identical [+plural] features that causes ungrammaticality in the illicit APCs which bear a plural agreement suffix.

4. 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.

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

(8) a. *X-si-ler   c. *X-niz-ler
          X-POS.3SG-APL   X-POS.2PL-APL
     b. *X-miz-ler   d. *X-leri-ler
          X-POS.1PL-APL   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 (9).

(9) 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*, it can be inferred 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.

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 person singular possessive agreement marker *-sI* are ungrammatical when followed by *-lAr* (Table 3); however, they are grammatical when followed by *-gil* (Table 4). Therefore, we can infer that

	SG	PL
1	*X*-m-lar	*X-mız-lar
2	*X*-n-lar	*X-nız-lar
3	*X-sı-lar	*X-ları-lar

Table 3: The paradigm of the associative *-lAr*.

	SG	PL
1	*X*-m-gil	*X-mız-gil
2	*X*-n-gil	*X-nız-gil
3	*X*-sı-gil	*X-ları-gil

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

the reason for the ungrammaticality of APCs where *-lAr* follows *-sI* must be due to the form of the affix sequence **-sI+lAr*. Thus, I hypothesize that the suffix order **-(s)I+lAr* is ill-formed in Turkish.

A major piece of evidence that the suffix order **-(s)I+lAr* is ungrammatical in Turkish comes from speakers who use the form in (10-b) to express the intended meaning of (10-a).

(10) a. *abi-si-ler
          brother-POS.3SG-APL
          Intended: 'her brother and his assoc.'

    b. abi-ler-i
          brother-APL-POS.3SG
          'her brother and his assoc.'

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. Accordingly, the expected order in 3SG APCs is **-(s)I+lAr*; however, this form is ungrammatical. Interestingly, some Turkish speakers use forms such as in (10-b), where the suffix order is *-lAr+(s)I*, for 3SG APCs instead.[2] Based on this data (and others which will be provided as we proceed), I argue that there is a repair mechanism that changes the illicit suffix order **-(s)I+lAr* into the well-formed suffix order *-lAr+(s)I* in Turkish.[3] In particular, I argue that it is this rule that changes the expected order **-(s)I+lAr* into *-lAr+(s)I* when deriving words like *abileri* in (10-b).

Before illustrating how this repair mechanism works and how it can be formulated, the morphemes and their exponents in APCs like in (10) need to be discussed. 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. The second piece of evidence comes from the distribution of *-(s)I* in a variety of possessive phrases in Turkish, which Öztürk & Taylan (2016) extensively discuss. 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 illustrated in (11).

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[2]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 (10-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 (10-b).

[3]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 *-lAr* changes, *-lAr+(s)I* takes the surface form *-lArI* given that *-lAr* ends in a consonant.

(11) 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 *-lAr* is the exponent of the plural feature in Turkish: recall that both the additive plural and the associative plural are realized as *-lAr*. Given these observations, I argue that the so-called 3PL possessive suffix *-lArI* is in fact decomposed into *-lAr* and *-(s)I*, and that *-(s)I* is expected to precede *-lAr* 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 (10-b), rather than **abisiler*, provided in (10-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 *-lAr*, 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 (12) that are used in APC that have a third person singular possessor in Turkish.[4]

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

      {-plural} ⟷ ∅
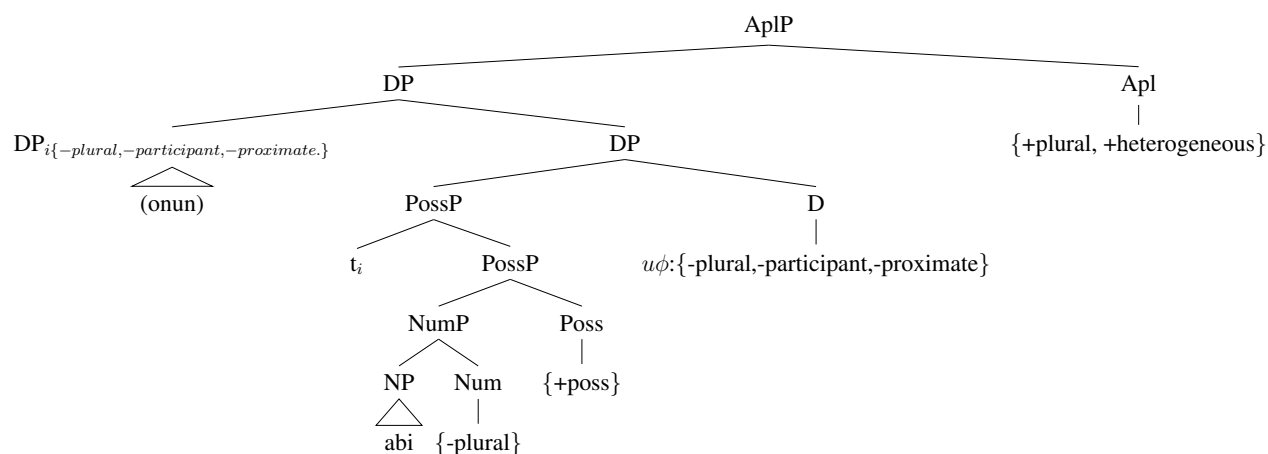   {+plural} ⟷ -lAr
      {+poss} ⟷ -sI

    With these vocabulary items, I return back to the 3SG APC *abileri* and posit that it has the structure in (13) before Vocabulary Insertion.

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[4]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. However, for the sake of exposition, I will gloss the possessive agreement markers of first and second persons as if they also spell-out POSS as a portmanteau throughout the paper.
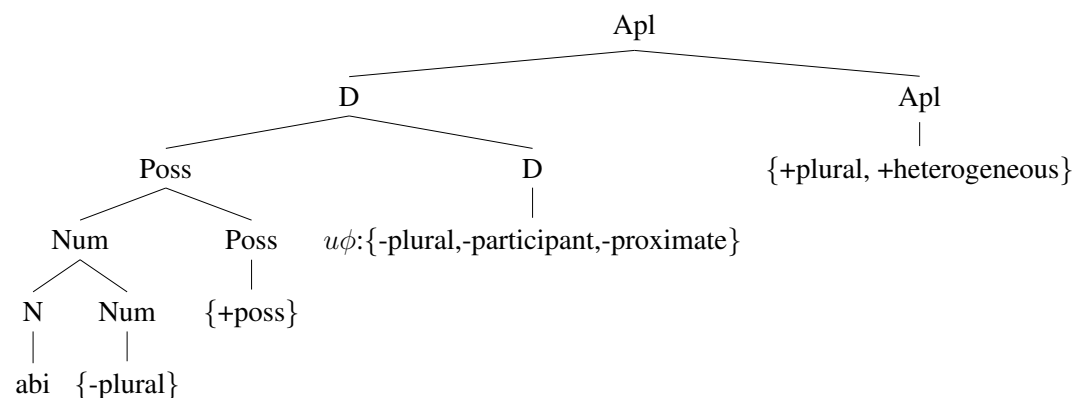
(13) The structure of *(onun) abileri* 'her brother and his associates'

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                                        AplP
                    ┌────────────────────┴──────────────────────┐
                   DP                                           Apl
         ┌──────────┴────────────┐                               │
  DP_i{−plural,−participant,−proximate.}        DP        {+plural, +heterogeneous}
         △                ┌────────────┴──────────┐
      (onun)           PossP                       D
                ┌────────┴────────┐                │
               t_i              PossP      uφ:{-plural,-participant,-proximate}
                          ┌───────┴───────┐
                        NumP            Poss
                   ┌──────┴──────┐        │
                  NP           Num      {+poss}
                  △             │
                 abi         {-plural}
```

(13) is the final structure of *(onun) abileri* 'her brother and his associates' before morphological words are formed. 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 *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*.

(14) The structure of the morphological word *abileri* 'her brother and his associates'

```
                                 Apl
                 ┌────────────────┴──────────────────┐
                D                                    Apl
        ┌────────┴────────────┐                       │
      Poss                     D           {+plural, +heterogeneous}
   ┌────┴────┐                 │
 Num        Poss    uφ:{-plural,-participant,-proximate}
┌──┴──┐       │
N    Num    {+poss}
│     │
abi {-plural}
```

In this structure, N is spelled-out by *abi* 'brother'.[5] Num hosts [-plural] and is inserted a null

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[5]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

exponent based on the VIs in (12). 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 be inserted for this feature set. Finally, Apl hosts the feature set {+plural, +heterogenenous} 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, +heterogenenous}. 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-∅-ler
          brother-POSS-3SG-APL
          Intended: 'her brother and his assoc.'

      b. abi-ler-i
          brother-APL-POSS(.3SG)
          'her brother and his assoc.'

Thus, 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*.

The argument that **-(s)I+lAr* is ill-formed and it is repaired as *-lAr+(s)I* is not ad hoc in order to account for 3SG APCs in Turkish. There is also independent evidence for the morphophonological ill-formedness of **-(s)I+lAr*. The suffix sequence **-(s)I+lAr* is possible, and *expected*, in some other constructions; nevertheless, it is not grammatical in these constructions either as long as the suffix order is not changed. For instance, the third person plural agreement marker *-lAr* may be found on the nominal predicate of a sentence if the subject is third person plural, as shown in (16). I mark this verbal agreement *-lAr* as COP.PL to differentiate it from the additive plural or possessive plural agreement marker *-lAr*.[6]

(16) Bu adam-lar öğretmen-(di)-ler.
      This man-PL teacher-(PST)-COP.PL
      'These men are (were) teachers.'

---

represent the root as N for simplicity since it does not bear immediate relevance for the current discussion.

[6]However, they do not need to be differentiated: apparently, they share the feature [+plural] and they can be realized by the same vocabulary item. Nevertheless, I will not go into the details of the verbal agreement morphemes and use the given glossing for the purposes of data-illustration.

COP.PL -*lAr* normally follows the possessive agreement marker, if there is any, on a nominal predicate, as shown in (17-a). However, (17-b) illustrates that when the possessive agreement marker is -*(s)I*, it cannot be followed by -*lAr*; it can only be spelled out as in (17-c).

(17) a. Bu adam-lar biz-im abi-miz-ler.
This man-PL we-GEN brother-POS.1PL-COP.PL
'These men are our brothers.'

b. *Bu adam-lar on-un abi-si-ler.
This man-PL s/he-GEN brother-POS.3SG-COP.PL
Intended: 'These men are his/her brothers.'

c. Bu adam-lar on-un abi-ler-i.
This man-PL s/he-GEN brother-COP.PL-POS.3SG
'These men are his/her brothers.'

Thus, 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*. 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 (18).

(18) 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 when two suffixes are linearly adjacent, as shown in (18), it cannot be achieved with a purely phonological rule. Furthermore, given the foregoing discussion on the repaired 3SG APC, we also 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, I propose that this repair mechanism can be formulated as a morphophonological *local dislocation* rule (Embick & Noyer 2007), which is provided in (19). This rule applies after linearization and changes the order between the linearly adjacent morphemes -*(s)I* and -*lAr* iff -*(s)I* linearly precedes -*lAr*.

(19) *Local Dislocation Rule*
-*(s)I* * -*lAr* ⟶ -*lAr* * -*(s)I*

With the rule in (19), 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.

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 ugrammatical. 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.

4.2. MORPHOSYNTAX. The associative plural morpheme can only combine with a subset of nominal stems that denote an individual in Turkish. The nominal stem provides the denotation of the focal referent in APC. Referential nominals can be either proper nouns, as in (20-a), or kinship terms that are marked with a possessive suffix which reflects the person/number features of the possessor, as in (20-b).[7]

(20) a. Merve-ler
          Merve-APL
          'Merve and her associates'

      b. [ben-im anne-m]-ler
          [I-GEN mother-POS.1SG]-APL
          'my mother and her associates'

As can be seen in (20-b), the associative plural morpheme actually attaches to a complex nominal which is a possessive phrase with a genitive marked possessor. On the other hand, the additive plural morpheme attaches to a simple noun phrase, exemplified with *anne* 'mother' in (21), which does not have a referential meaning.
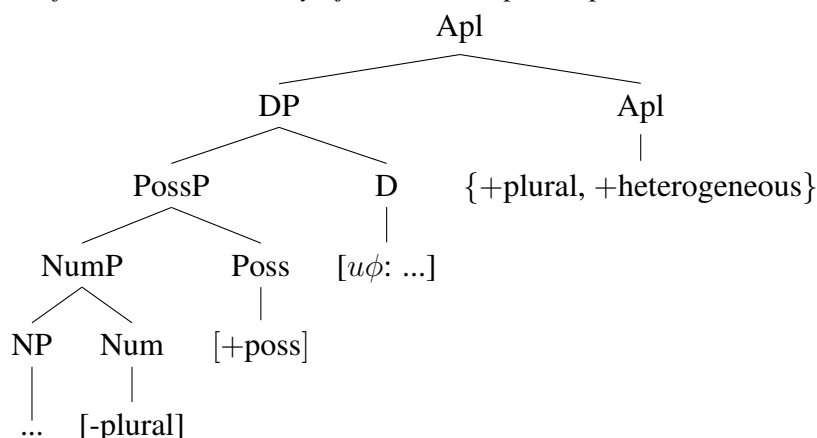
(21) anne-ler
      mother-PL
      'mothers'

Thus, referentiality and genitive case assignment are distinguishing properties that differentiate phrases that can combine with the associative plural from phrases that can combine with the additive plural. Since both of these properties are argued to be DP-level phenomena in Turkish (Arslan-Kechriotis 2006, 2009, Öztürk & Taylan 2016, Bošković & Şener 2014), we expect that the associative plural is merged above DP whereas the additive plural is merged below DP.

In previous studies on the structure of DP, the additive plural is argued to occupy Num head below PossP whereas the associative plural is merged over PossP or DP (Görgülü 2011, Cinque 2018, Dékány 2021). Following these studies, I suggest that the associative plural is merged with DP in Turkish. Furthermore, I adopt the DP structure proposed by Öztürk & Taylan (2016), which is posited based on the properties of genitive-possessive phrases in Turkish.

Hence, the functional hierarchy that emerges for APCs in Turkish is as follows: NP is combined with Num, which hosts the additive number feature. If the highest projection is a DP, the number feature on Num can be specified as either singular or plural. However, if the highest projection is the associative plural phrase, Num can be specified only as [-plural] since the associative plural selects a DP denoting a singular referent. After NP, Poss is merged, which is followed by D. Finally, Apl is merged to the whole DP. The proposed hierarchy can be seen in (22):

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[7]Note that although some non-relational kinship terms do not agree with their possessor, they can still be a base for the associative plural marker. However, this is not problematic for the claimed referentiality of the bases of associative plurals since the referents of these kinship terms are contextually defined, as suggested by Öztürk & Taylan (2016).

(22) *The functional hierarchy of associative plural phrases in Turkish:*

```
                          Apl
                 _____/   _____
                DP                    Apl
           ____/  \____                |
        PossP         D        {+plural, +heterogeneous}
      ___/  \___    [uφ: ...]
   NumP      Poss
   /  \        |
 NP   Num   [+poss]
  |     |
 ...  [-plural]
```

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 φ-features of D with the φ-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.

Having provided the functional hierarchy and the features under the terminal nodes, we can return to the question of 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 an the singular agreement feature [-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.

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 (23-a) is the relational root and *peder* in (23-b) is the non-relational root for the kinship term 'father'.

(23) 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 does not agree with its 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. (24) illustrates that both *baba* and *peder* can occur as the roots of APCs that have a singular possessor.

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

However, (25) 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 (25-a): a plural agreement marker is required for the form to be ungrammatical.

(25) a. *biz-im baba-mız-lar   b. biz-im peder-ler
         we-GEN father-POS.1PL-APL   we-GEN father-APL
         Intended: 'our father and his assoc.'   'our father and his associates'

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

(26)

$[_{Apl}[_{D}[_{Poss}[_{Num}$	NP	Num]	Poss]	D]	Apl]
	...	-plural	+poss	**+plural**	**+plural**
				±participant	+heterogeneous
				±proximate	

(26) 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 (26), two adjacent heads, D and Apl, host a [+plural] feature each. The [+plural] under D is a result of plural agreement and

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[8]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.

[9]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 (26) is found at a stage in PF where all agreement operations must have been completed, whether it be in syntax proper or at PF.

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:

(27) $*[_Y \quad [_X ... \quad$ X] $\quad$ Y]
        $\qquad\qquad\qquad$ +plural $\quad$ +plural

The ban on the adjacency of two [+plural] features in (27) 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.

This restriction cannot be solely due to the plural agreement morpheme since plural agreement morphemes are attested in many words in Turkish. For instance, forms like in (28) are grammatical, where a possessive plural agreement marker is immediately followed by the verbal (copular) plural agreement marker *-lAr*.

(28)   Onlar siz-in   abi-niz-ler.
        They you(pl)-GEN brother-POS.3SG-COP.PL
        'They are your(pl) brothers.'

The sentence in (28) may sound odd without a context since third person plural agreement in Turkish is usually dropped when there is an overt subject in the sentence (Göksel & Kerslake 2005; p.118). However, it is perfectly licit when uttered, for example, as a follow-up sentence by the director in the following context (which can happen in a soap opera): "The director of an orphanage points at two men through her office window, who are waiting in the courtyard, and asks the two little children in the room if they see the men. Children answer the question by nodding."

The grammaticality of the form in (28) is unexpected if we look at only the surface form. However, (29) shows that there is, at the very least, an intervening Tense/Aspect/Mood node, which is realized by the evidential *-mIş* in this example, between the possessive plural agreement morpheme and the verbal plural agreement morpheme in the structure of nominal predicates such as in (28) (Kelepir 2001).

(29)   Onlar siz-in   abi-niz-miş-ler.
        They you(pl)-GEN brother-POS.3SG-EVID-PL
        'Presumably, they are your(pl) brothers.'

Thus, forms like *abinizler* 'They are your(pl) brothers.' in (28), where a verbal (copular) third person plural agreement suffix immediately follows a possessive plural agreement suffix, are grammatical. Furthermore, (29) illustrates that plural morphemes are not structurally adjacent in examples like in (28): there needs to be Tense/Aspect/Mood nodes, though sometimes null, that structurally intervene between the plural morphemes in the structure of such words. Hence, these forms provide evidence that a ban on the structural adjacency of two plural morphemes make the correct

predictions by allowing forms like *abinizler* 'They are your(pl) brothers.'. On the other hand, a rule that prohibits the phonological adjacency of two plural suffixes makes incorrect predictions by disallowing forms like *abinizler* 'They are your(pl) brothers.', which are actually grammatical.

Another data point that can potentially falsify the analysis that structural adjacency of two plural features is banned comes from pluralized noun phrases that have a plural possessor. The additive plural *-lAr*, which also has [+plural], is immediately followed by a plural possessive agreement suffix in words like *annelerimiz* 'our mothers' in (30). If the additive plural morpheme and the possessive plural agreement morpheme are structurally adjacent in these words, then they pose a challenge for our generalization.

(30) (biz-im) anne-ler-imiz
      (we-GEN) mother-PL-POS.1PL
      'our mothers'

However, I argue that [+plural] features are not adjacent in the morphosyntactic structure of (30); hence, the form is not expected to be ungrammatical. Recall (22), where I proposed that the additive plural morpheme [+plural] occupies Num and the person/number agreement morpheme occupies D. I also proposed that, in the functional hierarchy, there is an intervening Poss between Num and D. Since Poss breaks the structural adjacency of Num and D in possessive phrases, there is no issue of adjacency between [+plural] features under Num and D in these phrases.

Positing a functional head below DP, such as Poss, in possessive phrases is not needed only for the sake of the current analysis. It is independently motivated by studies on possessive constructions in Turkish (i.e. genitive-possessive phrases and possessive compounds). For instance, Öztürk & Taylan (2016) argue that the NP argument of the head NP in possessive constructions is introduced by a functional head, which they call *n*, bearing a [+poss] feature. Regarding its position, they note that "POSS belongs to an inner domain and, as a terminal element, is observed only after the markers which belong to this domain lower than the DP, such as other noun deriving suffixes and the plural marker" (p.104). That is, in the functional hierarchy, Poss is above NumP, which hosts the additive plural and below DP, which hosts the plural agreement. Therefore, it breaks the adjacency between the features under their heads, and avoids ungrammaticality in examples like (30), proving not to be problematic for the proposed analysis.

Finally, the famous case of *-lAr-lAr* haplology in plural noun phrases that have a third person plural agreement marker in Turkish poses a challenge for the presented analysis. Plural noun phrases that agree with a third person plural possessor in Turkish are expected to have two plural suffixes: one for the additive plural and one for the plural agreement, as illustrated in (31-a). But instead, they have only one plural suffix, as shown in (31-b). Besides Turkish, this pattern is also attested in other Turkic languages such as Sakha (Vinokurova 2005, Kirby & Sevgi 2022), Yakut, and Bashkir (Johanson 2021), among others.

(31) a. (onlar-ın) *abi-ler-ler-i   b. (onlar-ın) abi-ler-i
          (they-GEN) brother-PL-3PL-POSS   (they-GEN) brother-PL.3PL-POSS
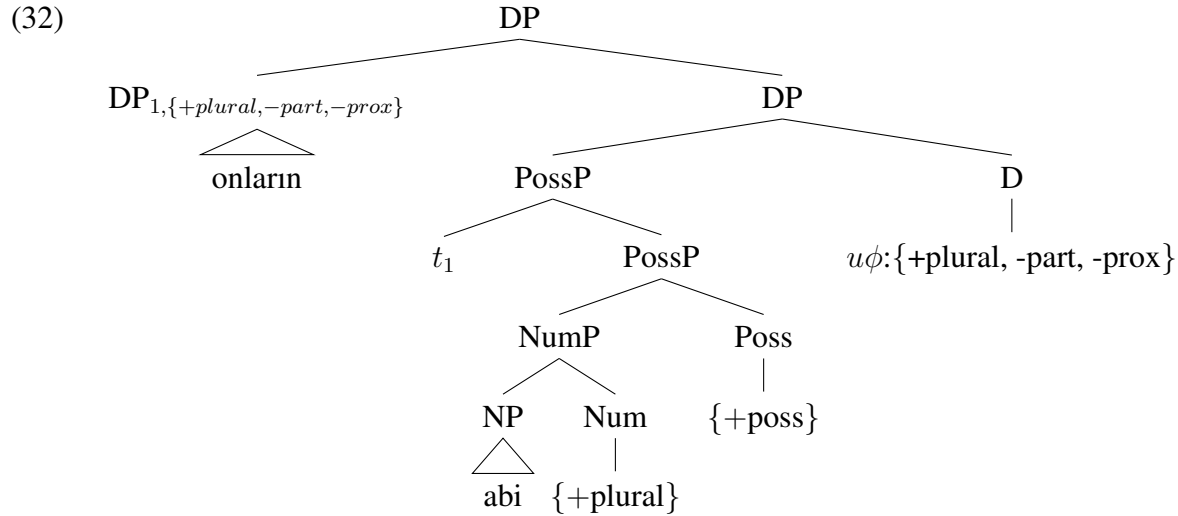   'their brothers'   'their brothers'

The surface form in (31-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 (31-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 (31-a) is ungrammatical due to the same ban, we expect that it should not be repaired, in contrast with what is observed in (31-b).

At any rate, although it may be counter-intuitive at first sight, I argue that the structure of the form in (31-a) does not contain two adjacent [+plural] features and is not ungrammatical due to the ban on the structural adjacency of two [+plural] features. In particular, I argue that the mechanism that repairs (31-a) as (31-b) is a morphophonological rule that deletes one of the *-lAr*s after Vocabulary Insertion and the data does not constitute a problem for the current analysis. In what follows, I will demonstrate how the form in (31-b) is derived with the tools proposed in this paper in order to illustrate that, coupled with the local dislocation rule applied to **-(s)I+lAr*, the posited morphophonological rule that deletes one of the *-lAr*s makes the correct predictions.

First, again, based on the functional hierarchy in (22), I assume the following structure for plural noun phrases that have a third person plural agreement marker. Second, the VIs provided in (12) are restated in (33) since they will be needed in the derivation.

(32)

(33) *VIs (for spelling out 'their brothers')*

       1.{-plural} $\longleftrightarrow$ $\emptyset$
       2.{+plural} $\longleftrightarrow$ -lAr
       3.{+poss} $\longleftrightarrow$ -sI

Given the discussion so far, I assume that in (32), the pronominal possessor was generated in Spec, PossP, from where it moved to Spec, DP for checking its referentiality/specificity features (Arslan-Kechriotis 2006, Öztürk & Taylan 2016). Then, in that position, it was assigned Genitive case and its ϕ-features were copied onto the D-probe by *Agree* (Chomsky 2000). I also assume that the structure in (32) is the final structure before word formation via head movement (Embick & Noyer 2007, Bobaljik 2012). When all the heads in (32), excluding those under the possessor

in Spec, DP, are moved to D head for word formation, and linearized according to the functional hierarchy (Embick 2010), we obtain the linearized structure in (34).

(34) *Linearization:*

N	*	Num	*	Poss	*	D
...		{+plural}		{+poss}		{+plural, +part, +prox}

The ban on multiple adjacent [+plural] features should be applied at this stage at the latest since it is the last stage before Vocabulary Insertion. Hence, if there are any adjacent [+plural] features, the structure should be banned at this stage. However, (34) does not have adjacent [+plural] features since the only two [+plural] features in the structure are separated by Poss. Therefore, the structure cannot be ruled out at this stage of derivation.

   Proceeding to Vocabulary Insertion, first the lexical root *abi* 'brother' is inserted into N in (34).[10] Then, the second VI in (33) is inserted into Num to expone it with *-lAr*. In turn, Poss is exponed by *-(s)I* with the third vocabulary item. Finally, the second VI in (33) is inserted into D by Subset Principle, given that {+plural} is a subset of {+plural, +part, +prox} and that there is no more specific VI than {+plural} in the list which can be inserted into D. Hence, we obtain the order of exponents in (35) as a result of Vocabulary Insertion.

(35) *Vocabulary Insertion:*
   *abi * -lAr * -(s)I * -lAr*

After vocabulary insertion, operations that are sensitive to the linear structure and the forms of morphemes are applied, if any. Recall the local dislocation rule provided in (19), restated here as (36).

(36) *Local Dislocation Rule in Turkish*
   *-(s)I * -lAr* ⟶ *-lAr * -(s)I*

The configuration in (35) is in the domain of this rule. There are two morphemes, *-(s)I* and *-lAr*, such that (i) *-(s)I* and *-lAr* are linearly adjacent and (ii) *-(s)I* precedes *-lAr*. Thus, the local dislocation rule should be applied, deriving the following linear order in (37).

(37) *abi * -lAr * -lAr * -(s)I*

Finally, relevant phonological rules (e.g. vowel harmony) are applied to the form in (37) and the final form in (31-a) is obtained: **abilerleri*. Note that this form is unexpectedly ungrammatical given the current analysis: the ban that we posited on adjacent plural features operates at an earlier stage before vocabulary insertion. Since there is no adjacency between plural features at that level, it cannot rule out this form. However, we seem to miss an important generalization: both ungrammatical APCs and plural noun phrases bearing the 3PL possessive agreement morpheme include two adjacent plural markers. Then, given this similarity, it is desirable to have one common constraint, or violation, that can explain the ungrammaticality of both.

   Nevertheless, I argue that the ungrammaticalities in these two forms cannot be collapsed into a single constraint. There is substantial difference between the ill-formedness of plural noun phrases

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[10]The internal structure of NP should include a root and a nominalizer at a minimum given the assumptions of DM. However, I simplify it as N since it does not have an impact on the discussion in this paper.

that have the third person plural agreement marker (*N-lAr-lAr-I*) and APCs that have a plural agreement marker (e.g. *abimizler*). Therefore, I suggest that the ban on the structural adjacency of two [+plural] features need not account for the ungrammaticality of plural noun phrases that have the third person plural agreement marker: these forms are ungrammatical due to a constraint which prohibits phonologically (form-wise) and morphologically (feature-wise) identical morphemes in Turkish.

The first difference is that, as extensively argued in this section, APCs that have a plural agreement morpheme are ungrammatical solely due to the abstract features of plural morphemes, i.e. the ungrammaticality is not sensitive to their forms and the structure is ruled out before vocabulary insertion. However, the adjacency of plural markers in *N-lAr-lAr-I* forms is obtained after the application of the *Local Dislocation Rule* in (36), which happens after vocabulary insertion. Hence, there is no structural adjacency between plural features before vocabulary insertion. That is, if the ungrammaticality of *N-lAr-lAr-I* forms is due to adjacent *-lAr* suffixes, it cannot exclusively refer to their abstract features as they have already been inserted their exponents.

The second difference is the availability of a repair strategy for *N-lAr-lAr-I* forms. As illustrated in (31-b), *abilerleri* can be repaired as *abileri*, i.e. if speakers want to convey the meaning 'their brothers', they can use *abileri*. However, there is no repair strategy for ungrammatical associative plurals like *abimizler*: speakers cannot use a different but parallel word form to convey the meaning 'my brother and his associates', which is the intended meaning of *abimizler*. So, the source of ungrammaticality in *abilerleri* can be repaired whereas the source of ungrammaticality in *abimizler*, which is the structural adjacency of two [+plural] features, cannot. Therefore, the ill-formedness of these two forms are due to different violations: one is resolvable, but the other is not.

The observations that *N-lAr-lAr-I* can be repaired as *N-lAr-I* and that it does not have two adjacent [+plural] features before vocabulary insertion show that the ungrammaticality of *N-lAr-lAr-I* cannot be due to the ban on two structurally adjacent [+plural] features proposed in (27). Therefore, we need to posit two things: (i) a constraint which will mark *N-lAr-lAr-I as ungrammatical by referring to the phonological identity of its components, and (ii) a repair mechanism to turn *N-lAr-lAr-I into N-lAr-I and avoid the violation of the constraint in (i).

Considering (i) and (ii), I argue that the expected *-lAr+lAr* order is ungrammatical and it is repaired as *-lAr* when each *-lAr* constitutes a morpheme on its own. Thus, I formulate the morphophonological dissimilation operation in (38), which states that if there are two linearly adjacent morphemes, X and Y, such that both morphemes are spelled out by *-lAr*, delete one *-lAr*.

(38)   X   *   Y
       -lAr * -lAr ⟶ -lAr

As Kirby & Sevgi (2022) also notes, the ban on *-lAr+lAr* clusters cannot purely be phonological: when one of them is a part of the stem, the form is grammatical. Hence, the rule should prohibit only consequent suffixes, each of which has the exponent *-lAr*.

(39)   polar-lar
       fleece-PL
       'things made of fleece'

Hence, the deletion of *-lAr* in **-lAr-lAr* is a phenomenon of morphophonological dissimilation similar to the deletion of *-s* in **-s-'s* clusters in English. When the plural marker *-s* is followed by the possessive marker *-'s*, **-s-'s* is turned into *-s* in English. As Nevins (2012) argues by providing the data in (40), each *s* sound should constitute a morpheme on its own for this rule to apply.

(40) a. the cats' feet are dirty (kæts, *kætsɪz)
     b. the pigs' hooves are clean (pɪgz, *pɪgzɪz)
     c. the oxen's hooves are dirty
     d. Katz's deli   (Nevins 2012; p.105)

The rule in (38) would delete one of the *-lAr*s in *-lAr-lAr* affix sequence regardless of the identity of the morphemes, meaning that the morphemes need not be [+plural]. However, given that *-lAr-lAr* affix sequence can occur in Turkish only when a plural noun phrase agrees with a third person plural possessor, there is no way to test if the individual morphemes that are realized by *-lAr* are required to be [+plural] morphemes. For this reason, I posit the most general rule by stating that regardless of the featural decomposition of morphemes, if two morphemes are linearly adjacent and each of them have the exponent *-lAr*, the rule in (38) applies.

To summarize this section, I started by arguing that the ungrammatical forms, i.e. gaps, in the paradigm of associative plural constructions (APCs) are semantically and pragmatically motivated. I posited that the ungrammaticality in 3SG APCs that are formed with the plural marker *-lAr* is due to a morphophonological constraint on the **-(s)I-lAr* suffix order in Turkish. Based on speaker judgments and data from other word forms where the expected order is **-(s)I-lAr* but the surface order is *-lAr-(s)I*, I suggested that the illicit order **-(s)I-lAr* is repaired as *-lAr-(s)I* with a local dislocation rule in Turkish.

Having explained the gap in the 3SG cell, I turned to the systematic gap in APCs with a plural agreement marker. I argued that this gap is a result of a ban on two structurally adjacent [+plural] features in Turkish. By discussing some potentially problematic data, I demonstrated that the analysis makes correct predictions in all cases. Finally, I discussed a well-known instance of haplology in plural noun phrases with third person plural agreement in Turkish (and most other Turkic languages). I argued that this, too, is not problematic for my analysis since the adjacency of plural suffixes is fed by the local dislocation rule that repair **-(s)I-lAr* as *-lAr-(s)I*, showing that it applies after vocabulary insertion at the linear structure (Embick 2010). Moreover, I argued that **-lAr-lAr* is coalesced into *-lAr* with a morphophonological haplology rule similar to *-s*-deletion in **-s-'s* affix order in English.

5. Discussion. I offered three distinct operations in explaining a variety of data observed in possessive constructions in Turkish. The first one is a ban on the structural adjacency of two [+plural] features. I argued that this ban operates at the level of abstract features, for which I used the term morphosyntax. Hence, this constraint is insensitive to the phonological identity of the terminal nodes/morphemes. I provided evidence for this argument by showing that, in addition to the standard associative plural suffix *-lAr*, its form-wise distinct dialectal variant *-gil* is also ungrammatical in the environment of a plural agreement marker. Moreover, I illustrated that associative plural word forms are ungrammatical when there is *any* plural agreement marker in the word. Because the plural agreement markers *-mIz* (1PL), *-nIz* (2PL), and *-lAr* (3PL) are form-wise distinct,

I argued that the ban applies at the level of abstract features.

This argument hinges on the architectural assumptions of DM. DM assumes that derivation proceeds step-by-step fashion following a certain order. First the structure is built by morphosyntactic features. At this stage, there is no phonological form. Then, the set of features under terminal nodes is matched with their exponents, which are stored in the Lexicon. This stage of the derivation is called Vocabulary Insertion. Given these assumptions, there is no phonological form in the derived structure before Vocabulary Insertion, which is a distinguishing property of DM and is called *Late Insertion* (Halle & Marantz 1993, Harley & Noyer 1999, Embick & Noyer 2007). Therefore, I argue that the ban on two adjacent [+plural] features operates before Vocabulary Insertion and it is a morphosyntactic ban, since it is not sensitive to the phonological form of the morphemes in associative plural constructions.

Note that the ban on the structural adjacency of two [+plural] features does not rule out structures where the intervening node between the nodes that bear [+plural] is phonologically null. Recall the example in (28), *abinizler* 'they are your(pl) brothers', where *-nIz* is the exponent of 2PL features under D (possessive agreement) and *-lAr* is the exponent of 3PL features under T (verbal agreement) . I argued that there is an Aspect/Mood node intervening between D and T in this structure, given the existence of forms such as *abinizmişler* 'they are your(pl) brothers' in (29), where the evidential marker *-mIş* is the surface exponent of the intervening Aspect/Mood node (Kelepir 2001). Thus, there needs to be no node, though null, between two [+plural] features for the ban to label the structure as ungrammatical.

The second operation I posited is a local dislocation rule which turns the order of exponents *-(s)I-lAr* into *lAr-(s)I*. I posited this rule based on a variety of data from different constructions. First, I discussed that associative plural constructions with a third person singular possessor, which have the form (ROOT-*(s)I-lAr*), are ungrammatical. However, some speakers report that they accept the form (ROOT-*lAr-(s)I*) to express the intended meaning of ROOT-*(s)I-lAr* forms. This order is unexpected since the associative plural, which is realized by *-lAr*, is syntactically higher than Poss, which is exponed by *-(s)I*. To a large extent, the order of affixes is assumed to be determined by syntactic hierarchy (Baker 1985, Halle & Marantz 1993, Bobaljik 2012, Harley 2015). If there is a discrepancy between affix order and syntactic hierarchy, which is the case for *-lAr-(s)I*, it is usually alluded to post-syntactic operations such as local dislocation (Embick & Noyer 2001, 2007, Embick 2010; cf. Koopman 2017). Hence, there seems to be a post-syntactic operation that causes this syntactically unexpected order.

Second, I illustrated that associative plural constructions formed with the dialectal variant *-gil* (X-*(s)I-gil*) are grammatical. Since *-lAr* and *-gil* are form-wise distinct but they are both feature-wise associative plural morphemes, I hypothesized that the ungrammaticality of X-*(s)I-lAr* associative plural constructions is morphophonological. I hypothesized that it is the affix sequence *-(s)I-lAr* that is morphophonologically ill-formed and I argued that it can be repaired by a post-syntactic operation such as a local dislocation rule which changes the order of exponents *-(s)I-lAr* into *-lArI*. Furthermore, I argued that the affixes *-(s)I* and *-lAr* need not be structurally adjacent based on data from other constructions where the verbal (copular) plural agreement marker *-lAr* follows the possessive marker *-(s)I*. Thus, the rule requires the exponents of morphemes *-(s)I* and *-lAr* only to be linearly adjacent, with no consideration for their structural position, which is in line

with previous work on local dislocation operations in DM. For instance, Embick & Noyer (2007) argue that local dislocation is applied after linearization, and it "operates only in terms of linear adjacency, not hierarchical structure" (p.23). Thus, the rule that turns *-(s)I-lAr* into *-lArI* can be defined as a local dislocation operation in DM.[11]

Finally, the third operation that I posited is a haplological rule that deletes one of the *-lAr*s in the suffix sequence *-lAr-lAr*, which occurs when the third person plural marker *-lAr* is concatenated with a pluralized nominal. I argued that this rule is fed by the local dislocation rule, which creates the environment needed for its application. I also suggested that this haplological repair mechanism operates at the same level with the local dislocation rule, given that it is fed by the latter and that it considers the linear adjacency of morphemes that have identical forms.

However, an important question arises regarding the scope of the haplological rule that deletes *-lAr* in *-lAr-lAr*: is it a general rule that deletes one of *any* two morphemes that have identical forms? To put it differently, in addition to having identical forms, do morphemes need to be identical, too, in order for one to be deleted? Before answering this question, one needs to answer "What does it mean for two morphemes to be identical?" Theoretically, a morpheme, what is also called a *subword*, is a terminal node that consists of a set of features within a complex syntactic terminal (a *word* in DM) (Embick & Noyer 2001). In addition to other principles applied at Vocabulary Insertion (e.g. *Subset Principle*), the set of abstract feature(s) that makes up the terminal determine which vocabulary item will be inserted into that terminal. Then, if two terminal nodes consist of the same set of feature(s), these two terminal nodes can be stated to be identical morphemes.

Identical morphemes may be inserted different vocabulary items, though, if they have allomorphs that are determined by their morphosyntactic or morphophonological environment. For instance, if we assume that passive markers in Turkish are the same morpheme (Özkaragöz 1986, Murphy 2014), i.e. they have identical features, then the constructions that include two consecutive passive markers actually include two identical passive morphemes (cf. Legate et al. 2020). However, as illustrated in (41), even though they are identical morphemes, they have different forms depending on their environment.

(41) Harpte   vur-ul-un-ur.
      War-LOC shoot-PASS-PASS-AOR
      'One is shot (by one) in the war.'   (Özkaragöz 1986; p.77)

Therefore, two morphemes may be identical despite having different forms. On the other hand, two morphemes may be distinct even though they have the same form. For instance, Turkish has a nominalizer suffix *-mA* and a negation suffix *-mA*, as exemplified in (42).

(42) yap-ma-ma
      do-NEG-NOM
      'not doing'

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[11]Morphemes that have null exponence might be deleted from the linear structure, according to Embick (2010), and this is called *Pruning*. However, if there is no such mechanism, then *-(s)I* and *-lAr* would not be linearly adjacent, given that there are syntactic nodes that have null exponents between them. Therefore, this analysis is compatible with the accounts assuming that null exponents are transparent for operations that occur after linearization, e.g., local dislocation.

(42) illustrates that two distinct morphemes that are realized by the same exponent, the negation morpheme *-mA* and the nominalizer morpheme *-mA*, can be linearly adjacent in Turkish. This data provide evidence that Turkish does not have an haplological operation that deletes two linearly adjacent morphemes that are distinct morphemes but have identical forms. That is, to answer the raised question, a haplological rule that deletes one of *any* two morphemes that have identical forms makes incorrect predictions for Turkish.

Furthermore, some argue that a null allomorph is inserted into one of the [+plural] features in the environment of the other [+plural] *-lAr* (Kirby & Sevgi 2022). However, this analysis would not work in our case since two [+plural] features are not adjacent before vocabulary insertion: they become adjacent after vocabulary insertion. That is, when vocabulary items are inserted, the order of affixes is *-lAr-(s)I-lAr*, given that the first *-lAr* is inserted under Num, *-(s)I* is inserted under Poss, and the final *-lAr* is inserted under D. Then, *-(s)I-lAr* sequence undergoes local dislocation rule to derive the affix order *-lAr-lAr-(s)I*. Only at this point, where vocabulary items have already been inserted, the plural markers become adjacent. Since the vocabulary insertion has already happened at this stage, a null morpheme cannot be inserted into one of the plural morphemes. Hence, because **-(s)I-lAr* local dislocation rule is well-motivated to explain a range of observations in Turkish, the analysis that **-lAr-lAr* haplology is resolved by deleting one of the *-lAr*s is superior to an analysis that utilizes contextual/suppletive allomorphy.

Another possible explanation for the mechanism behind **-lAr-lAr* haplology is that there is a rule in Turkish that deletes one of the morphemes if both the morphemes and their exponents are identical. Such an operation, of course, would require an architecture where the abstract features are visible even after vocabulary insertion. This is in fact what is posited by Harizanov & Gribanova (2013) to explain the distribution of the allomorphs of definiteness marker in Bulgarian: if the rewriting of features is rejected when a feature set is matched with a phonological form, its features are maintained. Yet, such an explanation needs to be further motivated given that the context of a vocabulary item is predominantly defined either by using abstract features or by using the phonological form of a morpheme, but not both (see Gouskova & Bobaljik 2020 for a detailed review). Hence, I suggest that **-lAr-lAr* haplology is due to an operation that is distinct from vocabulary insertion that deletes one of the *-lAr* suffixes after they are inserted.

6. Conclusion. This article presents an analysis of an interesting *gap* in the paradigm of associative plural constructions is 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.

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