## A Morpho-syntactic Analysis of Ungrammatical Associative Plurals in Turkish

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**Introduction** In this study, we propose an account of why associative plural constructions in Turkish are ungrammatical when the associative plural suffix is preceded by a plural agreement suffix regardless of the value of the person feature. By analyzing the structure of personal pronouns in Turkish in the spirit of Dékány's (2021) decomposition of personal pronouns in Hungarian, we propose that the ungrammaticality of these associative plural constructions results from a ban on the linear adjacency of two associative plural features.

Associative Plural Many languages dissociate between two types of plurality: additive and associative (Daniel & Moravcsik 2013). Turkish is also among these languages in that associative plural and additive plural are different syntactically and semantically although their phonological forms are the same (Görgülü 2011). (1) and (2) illustrate the contrast between [PL] (additive plural) -lAr and [ASCPL] -lAr (associative plural).

- (1) a. \*abla-m-lar sister-1SG.POSS-PL Intended: 'my sisters'
  - b. abla-lar-ım sister-PL-1SG.POSS 'my sisters'

- (2) a. abla-m-lar sister-1SG.POSS-ASCPL 'my sister and her associates'
  - b. \*abla-lar-ım neighbor-ASCPL-1SG.POSS Intended: 'my sister and her associates'

The first contrast is that additive plural cannot combine with a phrase which denotes a unique referent ((1a)) while associative plural has to combine with a phrase which denotes a unique referent ((2a)). By following a syntax-semantics mapping following (Heim & Kratzer 1998), we can state that additive plurals combine with an NP whereas associative plurals combine with a DP.

Another contrast, which is not lesser than the first, is that when combined with a stem, say X, associative plural returns the meaning 'X and his/her associates' whereas additive plural returns 'multiple Xs'. Syntactically, additive plural cannot follow the possessive agreement marker as opposed to associative plural, which must follow it unless it attaches to a proper nouns.

**Ungrammatical Associative Plurals** Having provided the background, we can now move on to inspect associative plurals in depth. In some dialects of Turkish, there are two exponents for the associative plural: -lAr and -gil. -gil is exclusively an associative plural unlike -lAr, which is syncretic with the additive plural as exemplified in the previous section. Interestingly, neither -lAr nor -gil can attach to a stem that is bearing a plural agreement suffix.

(4)

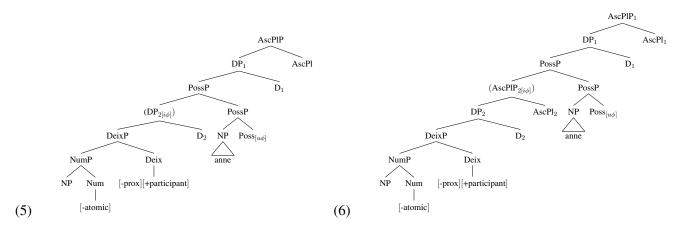
- (3) a. anne-n-ler mother-2SG.POSS-ASCPL 'your(sg) mom and her associates'
  - b. \*anne-niz-ler mother-2PL.POSS-ASCPL 'your(pl) mom and her associates'
- a. anne-n-gilmother-2SG.POSS-ASCPL'your(sg) mom and her associates'
- b. \*anne-niz-gil mother-2PL.POSS-ASCPL 'your(pl) mom and her associates'

Based on the data in (3) and (4), we argue that the ungrammaticality of associative plural in the environment of plural agreement suffix cannot be explained exclusively by phonology since what the two allomorphs of associative plural share is not phonological features but morpho-syntactic/semantic features. Hence, these data should be explained by referring to abstract features rather than the shape of the exponents.

**Analysis** By adopting Dékány's (2021) decomposition of Hungarian personal for analyzing Turkish personal pronouns, we propose that plural pronouns are derived from singular pronouns by merging them with associative plural feature [ASCPL]. Thus, singular and plural personal pronouns are exactly the same except the additional [ASCPL] in plurals. With this decomposition, we can posit the following syntactic structures for (senin) annenler ((5)) and \*(sizin) annenizler ((6)).

(senin) annenler/annengil
'your(sg) mom and her associates'

\*(sizin) annenizler/annenizgil
'your(pl) mom and her associates'



DP<sub>2</sub> in (5) is 2nd person singular pronoun and AscPlP<sub>2</sub> in (6) is the 2nd person plural pronoun. They both occupy the specifier of PossP, where possessors are generated. Then, by Spec-Head Agree (Chomsky 1991), the uninterpretable  $\phi$  features on the probe on Poss head are valued by the interpretable  $\phi$  features on the DP<sub>2</sub> in (5) and AscPlP<sub>2</sub> in (6). For simplicity, let's assume that  $i\phi$  of DP<sub>2</sub> is [2], which represents 2nd person (when there is no plural information, it is interpreted singular). Following the same logic,  $i\phi$  of AscPlP<sub>2</sub> would be {[2], [ASCPL]}. This is not controversial since the only feature that separates 2sG and 2PL pronouns is [ASCPL] and we need to assume that it is interpretable for it triggers agreement. Thus, when  $u\phi$  in Poss head is valued, the only difference between (5) and (6) is the presence of [ASCPL] in (6). Therefore, the cause of ungrammaticality in (6) must be [ASCPL].

This grammaticality contrast can be neatly explained by assuming that syntactic structure is linearized at PF (Halle & Marantz 1993). For linearization, we can adopt a linearization operator such as \* in addition to a Pruning mechanism which eliminates null exponents when concatenating feature(s) in terminals (Embick 2010). With these independently motivated tools, D<sub>1</sub> will be pruned in linerization and {[2],[ASCPL]} under Poss head in (6) will be linearly adjacent with [ASCPL] under AscPl<sub>2</sub>. Thus, a block on the linear adjacency of two [ASCPL] features, which is inevitable in constructions such as (6), can explain the ungrammaticality of associative plural constructions formed with both -gil and -lAr independent of their phonological forms.

**Conclusion** Since [ASCPL]\*[ASCPL] never occurs with singular possessors inside associatives, the grammaticality contrast between associative plurals following singular agreement morphemes and those following plural agreement markers is straightforwardly explained with a ban on [ASCPL]\*[ASCPL] in Turkish.

**References** [1] Chomsky (1991). Some notes on the economy of derivation and representation. [2] Daniel & Moravcsik (2013). The Associative Plural. [3] Dékány (2021). The Hungarian Nominal Functional Sequence. [4] Embick (2010). Localism versus Globalism in Morphology and Phonology. [5] Görgülü (2011). Plural marking in Turkish: Additive or associative?. [6] Halle & Marantz (1993). Distributed Morphology and Pieces of Inflection. [7] Heim & Kratzer (1998). Semantics in Generative Grammar.