Variability in the realization of agreement in Turkish:
A morphotactic account

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[Important note: in the published version of this paper Güneş 2020 is referenced as "Interface of syntax and prosody in Turkish. In Kuramsal ve Uygulamalı Sesbilim [Theoretical and Applied Phonology], İpek Pınar Uzun (ed.), to appear, Seçkin Yayınevi, Ankara." this is a mistake.

The correct reference to Güneş 2020 is "Güneş, G. 2020. Morphosyntax and phonology of agreement in Turkish. Syntax."]

Abstract

Subject agreement in Turkish usually appears verb-finally. However, in certain cases agreement may appear non-finally. Furthermore, in certain dialects, and in colloquial speech, agreement may appear both finally and non-finally, yielding doubling. Previous accounts do not consider double agreement, and therefore are explanatorily inadequate. This paper proposes an account in which medial agreement is derived via reduplicating a string of morphemes that includes agreement, followed by deletion of some of the duplicate or original morphemes. While medial agreement involves reduplication plus deletion of one of the occurrences of agreement, I claim that double agreement involves reduplication but without deletion of the base or the reduplicant of agreement. My account is an adapted version of the morphological metathesis accounts that were proposed for double agreement in Spanish (see Mare 2018 for an overview).

Keywords: deletion, morphotactics, morphosyntax, displacement, reduplication, subject agreement, Turkish, variability.

1   Introduction

In this paper, I investigate the distribution of the subject agreement morpheme (henceforth, *AGR*) in Turkish, paying particular attention to its seldom-discussed verb-medial and doubled instantiations.[1] I provide a unified analysis of the variable position of subject agreement in the Turkish verbal complex, which I treat as a morphological phenomenon.

In Turkish, AGR usually appears in the final position of the verbal domain, regardless

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[1] This work is built on research carried out with Aslı Göksel between 2012 and 2019, whose origins can be traced to a discussion of the interesting prosodic behaviour of agreement in Turkish in Göksel (2010) (originally observed by Sebüktekin 1984). Since 2012, Aslı and I have presented phonological and morphophonological analyses of these and other related data at a variety of venues, such as MMM9 2013, LINGDAY 2013, The Word and the Morpheme workshop - Berlin 2016, ComSyn Leiden 2017. The novel observations presented in this paper arose in discussion with Aslı. Although the current morphotactic analysis departs from our joint research on this topic, it should be viewed as complementary to it. I am thankful to Aslı for involving me in this research. This work has also benefited from comments and suggestions made by Jonathan Bobalijk, Lisa Cheng, James Griffiths, Barış Kabak, Anikó Lipták, Jason Merchant and Andrew Nevins. Any errors are my own.

of whether the verb displays one tense, aspect, or mood/modality (*TAM*) morpheme (1a-b) or many (1c).

(1)   *Final AGR*

a.   gel-di-**m**
arrive-PST-1SG
'I arrived.'

b.   gel-miş-**im**
arrive-EVD-1SG
'I arrived (apparently).'

c.   gel-ecek-i-di-**m**
arrive-FUT-COP-PST-1SG
'I was going to arrive.'

However, under well-defined conditions, the distribution of AGR may vary. Reconsidering Sebüktekin's (1984) and Göksel's (2010) observations on stress related properties of AGR in the verbal domain, Güneş and Göksel (2017) and Güneş (2020) discuss three patterns of AGR realization in Turkish. These are final AGR (1), medial AGR (2), and double AGR (3).[2] The medial AGR pattern is observed only with certain TAM morphemes and when more than one TAM morpheme is present. In cases of multiple TAM, the lower TAM is hosted by the lexical verb and the higher TAM(s) is hosted by a (frequently null) copular verb, which yields a complex verbal domain (I refer to this domain as the verbal complex) (Kornfilt 1996, Kelepir 2001, among others). Assuming that as each TAM morpheme in a Turkish verbal complex suffixes to a distinct verbal item, one may view the medial agreement pattern as arising only when there is more than one verbal item in the verbal complex. Because the double AGR pattern only arises when medial AGR is independently available (i.e. double AGR can be characterized as "medial AGR plus the addition of a suitable final AGR"), explicating the environments in which medial AGR may occur entails explicating the environments in which double AGR is available.

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[2] Certain instances of medial agreement, and generally all instances of double agreement, are found in certain nonstandard Turkish dialects and in the colloquial use of standard Turkish. Evidence for this comes from the abundance of hits from a variety of sources that are returned from Google searches for individual words containing medial or double AGR. These phenomena have also been previously reported or documented in the linguistic literature. For some examples from current central Anatolian dialects see e.g. Gemalmaz 1978: 440-549, Tekin 1994: 148-164, Öztürk 2018:229; for Old Turkish (including Uighur, Karahanlı and Old Anatolian Turkish), see Ercilasun 1984:151-155, Timurtaş 2005: 151-154, Eraslan 2012: 351-355, Güner 2013: 250-258, Şen 2016 as cited in Bekar 2018: 127, Doğan 2019: 218; for Chagatai Turkish see Türk 1996: 302. A comprehensive dialect map of the contemporary uses of medial and double realisation of agreement must await further research, however.

(2) *Medial AGR*   (3)   *Double AGR*

a. gel-di-**m**-Ø/-i-se   a.   gel-di-**m**-Ø/-i-se-**m**
    arrive-PST-1SG-COP-COND   arrive-PST-1SG-COP-COND-1SG
    'If I had arrived...'   'If I had arrived...'

b. gel-di-**m**-Ø/-i-di   b.   gel-di-**m**-Ø/-i-di-**m**
    arrive-PST-1SG-COP-PST   arrive-PST-1SG-COP-PST-1SG
    'I had arrived.'   'I had arrived.'

c. gel-ce-**z**-Ø/-i-se   c.   gel-ce-**z**-Ø/-i-se-**k**
    arrive-FUT-1PL-COP-COND   arrive-FUT-1PL-COP-COND-1PL
    'If we are to arrive...'   'If we are to arrive...'

Importantly, variation between the final, medial, and double AGR patterns (if available as in (2) and (3)) causes no variation in meaning. Given that this variation has no semantic import, this paper assumes that the source of variability in between final, medial, and double AGR in Turkish morphological in nature, and not syntactic.

In this paper, I propose a morphotactic "metathesis-by-reduplication" account of the distributional variation of subject agreement in Turkish verbal domain. I claim that the ordering variation between medial and final agreement is a case of dislocation and that dislocation and doubling are essentially related and are derived via one simple morphological operation. This operation is composed of two steps: (i) certain morphemes are reduplicated and (ii) some of the morphemes are deleted. Depending on the target of deletion (i.e. whether the reduplicated form of AGR, the original / base form of AGR, or no instance of AGR is deleted), the medial, final, or double realization of AGR is derived. The account that I propose here is an adapted version of the morphological dislocation accounts that have been proposed to explain cases of variable distribution and double realization in Spanish and Basque (see Harris and Halle 2005, Arregi and Nevins 2012, 2018; see Mare 2018 for a useful overview; see Kayne 2010 for a syntax-based alternative analysis).

The remainder of this paper proceeds as follows. Section 2 describes the morphosyntactic distribution of subject agreement in the Turkish verbal domain. Section 3 provides a brief overview of Güneş' (2020) recent morphosyntactic analysis of subject agreement in the Turkish verbal domain, which provides a point of departure for the purely morphotactic analysis developed in section 4. Section 4 begins by presenting an overview of Harris and Halle's (2005) and Arregi and Nevins' (2018) analyses of Spanish metathesis and reduplication data before offering a novel analysis of the variable distribution of subject agreement in Turkish based upon it. Given that the "metathesis-by-reduplication" approach advanced in section 4 is descriptively but not explanatorily adequate for Turkish, section 5 discusses whether independent motivation for the analysis can be straightforwardly found. Section 6 summarizes the paper.

2   Distribution of subject agreement in the Turkish verbal domain

The traditional literature identifies two inflectional paradigms of subject agreement in the Turkish verbal domain that are relevant to the current discussion. These are the *k*- and *z*-paradigms, which are so-named because, among other differences, first person plural AGR is phonologically realized as /k/ in the *k*-paradigm but as /z/ (plus a vowel) in the *z*-paradigm (4) (see Göksel and Kerslake 2005 for a complete list of all paradigms).

(4) a. *k*-paradigm   b. *z*-paradigm

	Singular	Plural	Singular	Plural
1st	-m	-k	-(y)Im	-(y)Iz
2nd	-n	-nIz	-sIn	-sInIz
3rd	-Ø	-lEr	-Ø	-lEr

Membership in either paradigm is determined by the linearly closest TAM that precedes AGR. Thus, Turkish TAM morphemes can be classified according to the paradigm-membership they induce on AGR morphemes (Kornfilt 1997, Sezer 2001, Yu and Good 2000, 2005, Enç 2004, among others).

(5) a. TAM$_K$ morphemes   b. TAM$_Z$ morphemes

-DI	(Past)	-Iyor	(Prog)
-(y)sA	(Conditional)	-(y)AcAk	(Future)
		-Ir	(Aorist)
		-mIş	(Evd/Perf)

Göksel (2010:96) mentions – and Göksel and Güneş (2017), Erdem-Akşehirli (2018), and Güneş (2020) explicitly discuss – a third paradigm that is relevant to studies of agreement morphology in the verbal domain. In certain nonstandard dialects of Turkish and colloquial spoken standard Turkish, the future and progressive morphemes (both of which are TAM$_Z$ morphemes) may be realized in a phonologically reduced form, which licenses a phonologically reduced exponent of the standard *z*-paradigm of AGR (6). This *reduced z-paradigm of AGR*, in which AGR has one vowel less than its standard variety, and the reduced TAM$_Z$ morphemes that licenses it (henceforth pre-theoretically referred to as *TAM$_{RZ}$ morphemes*), are presented in (7).[3]

(6) a. gel-ce-**m**   gel-ce-**z**   gel-ce-**n**   gel-ce-**niz**
         come-FUT-1SG   come-FUT-1PL come-FUT-2SG come-FUT-2PL
         '{I/we/you} will apparently come.'

     b. gel-iyo-**m**   gel-iyo-**z**   gel-iyo-**n**   gel-iyo-**nuz**
         come-PROG-1SG come-PROG-1PL come-PROG-2SG come-PROG-2SG
         '{I/we/you} are apparently coming.'

(7) a. Reduced AGR$_Z$ b. Reduced TAM$_Z$ (TAM$_{RZ}$)

	Singular	Plural		
1st	-m	-z	-Iyo	(Progressive)
2nd	-n	-nIz	-(A)cA	(Future)
3rd	-Ø	-lEr		

Based on the varying morphosyntactic and prosodic distribution of subject agreement in Turkish, Güneş (2020) demonstrates that the traditional split of the inflectional paradigms of

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[3] The data that reported in the dialectal works cited in this paper show that a single speaker may use both the standard and the reduced varieties.

AGR (i.e. *k*-paradigm vs. *z*-paradigm) does not produce natural classes, and that the following bipartite division must be made between exponents of AGR:

(8)   *k*-paradigm   reduced *z*-par.   *z*-paradigm

	Sg	**Pl**	**Sg**	**Pl**	**Sg**	**Pl**
1st	-m	-k	-m	-z	-(y)**I**m	-(y)**I**z
2nd	-n	-nIz	-n	-nIz	-s**I**n	-s**I**nIz
3rd	-Ø	-lEr	-Ø	-lEr	-Ø	-lEr

    AGR$_F$ morphemes   AGR$_C$ morphemes

The vocabulary items enclosed in the double-lined box in (8) are the *Copula-containing* AGR morphemes (AGR$_C$). This group is so-named because, when it is not null, the copula verb is realized as /i/ (or /y/) in Turkish, and so it seems as though these AGR exponents also "contain" the copula verb (following Lees 1962, Kornfilt 1996, and Kelepir 2001, all of which suggested that the *z*-paradigm of agreement contains copula based on similar grounds). This is evidently related to the fact that these exponents contain an additional vowel /i/ (boldfaced in (8)) that their counterparts in the dashed box do not. These copula-containing AGR morphemes can be contrasted with the *copula-Free* AGR morphemes (AGR$_F$) in the dashed box in (8). Adopting the Distributed Morphology (DM) framework (Halle and Marantz 1993), Güneş offers a set of Vocabulary Item (VI) entries that encapsulates this core morphological difference between these two newly-defined paradigms (of those varieties).[4] In particular, she proposes that, while AGR$_F$ morphemes are exponents of only person and number agreement features (which are listed in (9i)), AGR$_C$ morphemes expone a larger set of features than this, namely [v_{COP}, T$_{[PRESENT]}$, PERSON, NUMBER]. The VIs suggested for AGR$_C$ morphemes are presented in (9ii).[5]

(9)   (i)   *Vocabulary entries for the AGR$_F$ paradigm*

a.	[+PL, +1, -2]	↔	-z	/{+FUT, +PROG}___	[**1PL**]
b.	[+PL, +1, -2]	↔	-k	/{+PAST, +COND}___	[**1PL**]
c.	[-PL, +1, -2]	↔	-m	/{+FUT, +PROG, +PAST, +COND}___	[**1SG**]
d.	[+PL, -1, +2]	↔	-nIz	/{+FUT, +PROG, +PAST, +COND}___	[**2PL**]
e.	[-PL, -1, +2]	↔	-n	/{+FUT, +PROG, +PAST, +COND}___	[**2SG**]
f.	[+PL, -1, -2]	↔	-lEr		[**3PL**]

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[4] Note that the reduced paradigm is restricted to certain varieties; as such this paper is concerned with only those varieties in which both of the paradigms described above are present. Certain idiolects (such as my own and one of the reviewers') seemingly allow TAM$_{RZ}$ not only with an AGR$_F$ morpheme; e.g. *gel-iyo-n* 'come-PROG-2SG', but also with an AGR$_C$ morpheme; e.g. *gel-iyo-sun* 'come-PROG-2SG'. However, I contend that the TAM marker in the second case, – which I will henceforth call *contacted TAM* – is not a TAM$_{RZ}$ morpheme, regardless of the fact that it shows the phonological profile of a TAM$_{RZ}$ morpheme. I claim that, in the case of *gel-iyo-sun* 'come-PROG-2SG', the TAM *-Iyo* is phonologically contracted form of the standard TAM *-Iyor*, where contraction takes place long after Vocabulary Insertion (and hence after the reduplication operations that are described in section 4), and is purely phonological in nature. Support for this claim comes from two facts. Firstly, these contracted TAM markers act similarly to the TAM$_{RZ}$ morphemes that host AGR$_F$. For instance, double or medial agreement is not allowed in a case in which *-Iyo* is followed by an AGR$_C$: **Gel-iyo-sun-du-n*. Secondly, this kind of late phonological contraction of the progressive marker is not observed in the other instance of TAM$_{RZ}$ i.e. in the case of Future marker: **Gel-ece-sin* 'come-FUT-2SG' / **Gel-ce-sin* 'come-FUT-2SG'. These facts do not allow us to consider *-Iyo* that takes TAM$_{RZ}$ on par with the instance of *-Iyo* that takes TAM$_Z$.

[5] Note that, to keep the discussion manageable, I will only discuss the TAM morphemes stated in the VI entries in (9) in this paper.

(ii)   *Vocabulary entries for the AGR$_C$ paradigm*

g.   [v_{COP}, T$_{[PRES]}$, +PL, +1, -2]   ↔   -Iz   [**1PL**]

h.   [v_{COP}, T$_{[PRES]}$, - PL, +1, -2]   ↔   -Im   [**1SG**]

i.   [v_{COP}, T$_{[PRES]}$, + PL, -1, +2]   ↔   -sInIz   [**2PL**]

j.   [v_{COP}, T$_{[PRES]}$, - PL, -1, +2]   ↔   -sIn   [**2SG**]

This difference in the VI entries for AGR$_C$ and AGR$_F$ morphemes reflects a morphosyntactic difference between these morphemes. In Turkish, number and person features are bundled together on one syntactic head (i.e. AGR),[6] whereas v_{COP} and T$_{[PRES]}$ are both features borne by distinct syntactic heads (see Zanon 2014 and references in there). This means that an AGR$_C$ morpheme is actually the phonological realization of three distinct items (10a) whereas an AGR$_F$ morpheme is the phonological realization of only one morphosyntactic item (namely, AGR) (10b). This entails that, in verbal complexes that contain one or more TAM$_Z$ morphemes, the rightmost TAM$_Z$ morpheme is always followed by the string of morphemes v_{COP}+T$_{[PRES]}$+AGR in the underlying morphosyntax (Kornfilt 1996). This morphosyntactic analysis is assumed throughout this paper, though it will not be explicitly represented in examples unless relevant.

(10)   a.   V   FUT v_{COP} T$_{[PRES]}$ AGR$_{(2PL)}$ *morphosyn. Termini*

gör   -ecek   -siniz   *phon. realization*

'You all will see.'

b.   V   T$_{[PST]}$ AGR$_{(2PL)}$ *morphosyn. termini*

gör   -dü   -nüz   *phon. realization*

'You all saw.'

One of the motivations for Güneş' bipartite division of AGR morphemes into the AGR$_F$ and AGR$_C$ classes is the observation that medial and double AGR is only observed with AGR$_F$ morphemes (compare (11a-f) with (11g-h)).[7] A major aim of any analysis of subject

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[6] A reviewer points out that the morphology of the AGR in both paradigms may be further decomposed into two distinct exponents that correspond to person and number morphemes. For instance, in the case of 2PL of AGR$_C$, in which AGR is exponed as *-sInIz*, one may suggest that the person information is exponed by *-sIn*, and the number information is exponed by *-Iz*, which, as stated by the reviewer, is an archaic number marker indicating some type of plurality. Crucially, however, in no case, the exponents of number and person can be separated, or act independently of one another. Therefore, I assume AGR (which bundles person and number features) to be a single head. Nevertheless, a morphosyntactic decomposition analysis of the AGR head as split into a two heads – one for person and one for number – can still accommodate the fact that the exponents of these two morphemes are inseparable. In such an analysis, a fusion operation, in the sense of DM, may be assumed. As this point is immaterial to the discussion in this paper, I overlook the possible complexities within AGR, and following the previous literature on Turkish subject agreement, assume that AGR is a single head.

[7] Although final-AGR and certain instances of medial-AGR have previously received considerable attention (Kornfilt 1996, Sezer 2001, Yu and Good 2000, 2005, Skinner 2009, Newell 2008, Shwayder 2015, Zanon 2014, a.o.), double-AGR in Turkish has only been discussed in Göksel and Güneş (2017) and Güneş (2020) (to my knowledge). I suspect that the reason for why medial-AGR and double-AGR has received little attention in the literature is because these patterns of agreement are not found in standard Turkish, but occur in colloquial Turkish and in some dialects of (Anatolian) Turkish (see footnote 1 for references). Although these distributions may be found to be marginally acceptable (or even unacceptable) by some speakers of standard Turkish, the cases of AGR$_F$ in (11) are nonetheless much preferred to the robustly unacceptable cases of AGR$_C$ in the bottom of the table (11) – e.g. *gördünse(n)* versus * *göreceksinsen*. This degraded acceptability is not specific to Turkish: "unexpected" orders and the double realization of agreement receives degraded judgments and speaker variation in other languages too (see Harris and Halle 2005 and Arregi and Nevins 2018 for agreement doubling in non-standard

agreement in Turkish is therefore to explain why this distinction is observed (see section 3 for Güneş' (2020) morphosyntactic explanation and section 4 for an alternative, purely morphotactic explanation).

(11)   *The distribution of medial AGR*

a.   AGR$_F$ (TAM$_K$ host)

gel-se-**k**-ti
come-COND-1PL-PST
'Had we come…'

b.   AGR$_F$ (TAM$_K$ host)

gel-se-**k**-miş
come-COND-1PL-PERF
'Had we have come…'

c.   AGR$_F$ (TAM$_{RZ}$ host)

gel-ce-**z**-miş
come-FUT-1PL-EVD
'We will apparently come.'

d.   AGR$_F$ (TAM$_{RZ}$ host)

gel-iyo-**nuz**-sa
come-PROG-2PL-COND
'Had you all been coming…'

e.   AGR$_F$ (3PL, TAM$_K$ host)

gel-se-**ler**-di
come-COND-3PL-PST
'Had they come…'

f.   AGR$_F$ (3PL, TAM$_Z$ host)

gel-ecek-**ler**-miş
come-FUT-3PL-EVD
'They will apparently come.'

g.   AGR$_C$ (TAM$_Z$ host)

＊gel-iyor-**uz**-muş
come-PROG-1PL-EVD
Intended:
'We are apparently coming.'

h.   AGR$_C$ (TAM$_Z$ host)

＊gel-eceğ-**iz**-di[8]
come-FUT-1PL-PST
Intended:
'We were going to come.'

In addition to medial AGR (and therefore double AGR) being restricted to AGR$_F$ morphemes, there is also a restriction on which TAM morphemes may host medial AGR. In particular, medial AGR is permitted only if its host TAM ends in a vowel, as a comparison of (12a) and (12b-c) shows (Güneş 2020). The one exception is the third person plural AGR$_F$ morpheme -*lEr*, which can appear in the medial position regardless whether its host TAM ends in a vowel or a consonant (compare (12d) and (11f)). In other words, once -*lEr* is set aside as an exception (see Yükseker 1995, Göksel and Kerlake 2005, Göksel 2006, Göksel 2007, İlhan 2009 for more on the special status of -*lEr*), all TAM$_K$ and TAM$_{RZ}$ morphemes can serve as hosts for medial AGR, as these TAM morphemes each end in a vowel.

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varieties of Spanish and Barbiers 2008 on microvariation in doubling phenomena more generally). Providing an explanation for why there is variation in the judgments of medial/double agreement is far beyond the scope of this paper.

[8] A reviewer notes that (11g-h) in the main text are acceptable in their dialect. This shows that the extent of dialectal variation is much larger. This necessitates a systematic dialectal analysis of double and medial agreement in Turkish, which is beyond the limits of this paper.

(12) a. gör-üyo-**z**-Ø-muş(-**uz)**
          see-PROG-1PL-COP-EVD-1PL
          'We were apparently seeing (it).'

      b. * gör-ece**ğ**-**iz**-Ø-miş(-**iz)**
          see-FUT-1PL-COP-EVD-1PL
          'We will apparently see (it).'

      c. * gör-ece**k**-sin-Ø-se(-**sen)**
          see-FUT-2SG-COP-COND-2SG
          'If you will see (it)...'

      d. gör-üyo-**lar**-Ø-mış(-**lar)**
          see-PROG-3PL-COP-EVD-3PL
          'They are apparently seeing (it).'

Treating this restriction on medial AGR as a form of phonologically conditioned contextual allomorphy, Güneş posits an additional VI for each persons of AGR$_F$ morphemes (except third person), which are listed in (13). These VI entries simply state that each AGR$_F$ morpheme will always be exponed as null if immediately preceded by a consonant. From a technical perspective, this treatment says that, while medial and double AGR patterns are indeed available with all AGR$_F$ morphemes, the medial instance of AGR$_F$ is covertly present but realized with a zero exponent if its host TAM ends with a consonant.

(13) [+PL, +1, -2]   ↔   -Ø /C___   [1PL]
      [-PL, +1, -2]   ↔   -Ø /C___   [1SG]
      [+PL, -1, +2]   ↔   -Ø /C___   [2PL]
      [-PL, -1, +2]   ↔   -Ø /C___   [2SG]

Having now outlined the observed restrictions on medial and double AGR, and having introduced a set of VI entries for AGR that formally encode these restrictions, the question that remains to be answered is this: for cases where medial and double AGR are permitted, how does AGR occupy a medial position in the first place? In the following section, I briefly sketch Güneş' (2020) morphosyntactic answer to this question. Following this, I outline an alternative, purely morphotactic approach in section 4.

3   Güneş (2020): AGR as a dissociated morpheme

Adopting the framework of DM, Güneş' (2020) account of medial and double AGR assumes that AGR is a *dissociated morpheme* (Embick 1997, 2015, but also see Halle and Marantz 1993; Bobaljik 2008), i.e. a bundle of φ-features that necessarily adjoins rightward to every TAM head after Spell-Out to the PF interface (see the morphosyntactic tree representation in (14) for a concrete example, which follows Kornfilt 1996 in its essence). In a verbal complex containing two TAM heads, this means that an instance of AGR adjoins both (i) the structurally higher TAM (i.e. the TAM in the copula domain of a verbal complex), and (ii) the structurally lower TAM (i.e. the TAM closest to the stem of the lexical verb).[9] According to

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[9] Zanon (2014) employs observations from *suspended affixation* (Lewis 1967, Kabak 2007) and from facts related to the distribution of stress on copula verbs to develop a similar analysis of medial AGR to Güneş (2020).
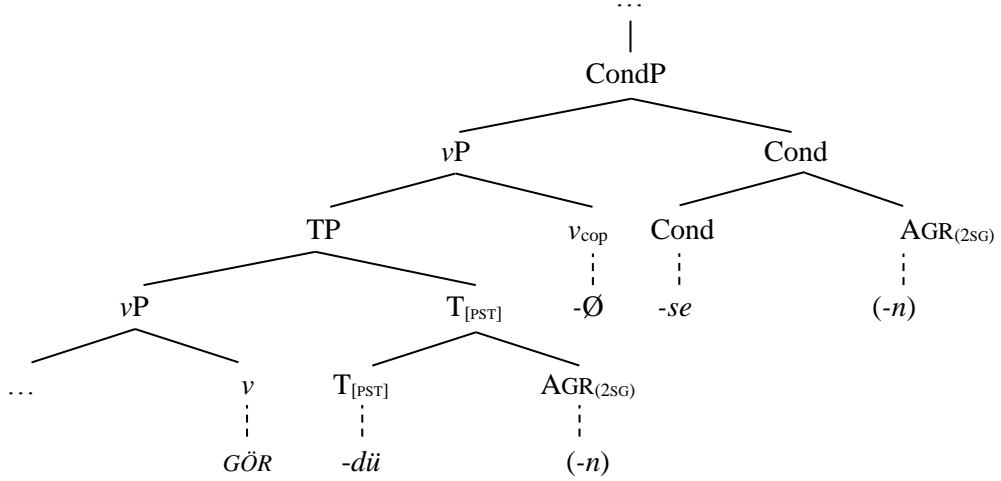
this account, if independent conditions on VI-insertion are satisfied, then VI-insertion may optionally target the higher AGR, the lower AGR, or both, yielding the final, medial, and double AGR patterns respectively.

(14) *AGR as a dissociated morpheme (simplified)*
    Gör-dü-n-se-n
    see-PST-2SG-COND-2SG
    'Had you seen (it)…'

On this account, the observation that only AGR$_F$ morphemes may occupy a medial position is explained by appealing to the strict hierarchical order of functional projections in the verbal domain: the T$_{[PRES]}$ syntactic head that AGR$_C$ morphemes expone always occupies a structurally higher position than all other TAM morphemes discussed in this paper (Sezer 2001, Kelepir 2001, 2007, Enç 2004, among others). Therefore, in an environment which contains T$_{[PRES]}$ and one or more other TAM morphemes, it is always these other TAM morphemes that occupy medial positions and therefore act as hosts for medial AGR.

    While this approach has many advantages and is empirically and conceptually superior to every analysis of subject agreement in Turkish that preceded it (see Güneş 2020: section 5 for details), it is nonetheless based on the nonstandard proposal that AGR is a head adjunct, which is inserted post-syntactically, rather than a projecting syntactic head. For experts on Turkish syntax unwilling to abandon the traditional analysis of AGR as a projecting syntactic head that selects for the structurally highest TAM projection in any given verbal complex (see Kornfilt 1996, Kelepir 2001, Skinner 2009, among others), an alternative analysis of medial AGR (and consequently double AGR) must therefore be found. The analysis I offer in the next subsection, which treats AGR as a standard syntactic head and which therefore treats the medial and double AGR patterns as purely morphological phenomena, is compatible with this traditional perspective on AGR, in which peripheral position of AGR is analyzed as its default position.

4   Turkish medial/double AGR via Generalized Reduplication

4.1   *Generalized Reduplication in the previous literature*

As mentioned in section 1, the morphotactic account of Turkish medial and double AGR in Turkish I offer in this paper is an adapted version of Harris and Halle's (2005) and Arregi and

Nevins' (2018) morphological analyses of Spanish metathesis and reduplication, and Arregi and Nevins' (2012) analysis of similar phenomena in Basque and its dialects. Following Arregi and Nevins (2012), who build on the initial account from Harris and Halle (2005), I refer to this analysis as *Generalized Reduplication* (GR). Below, I present and then adapt the latest version of this account, which is outlined by Arregi and Nevins (2018) to account for Spanish data that is briefly presented below.

The GR formalism was developed to account for the "unexpected" positioning and the multiple realization of the agreement morpheme in the Spanish verbal domain. Consider the Spanish example in (15), which is adapted from Harris and Halle (2005). While the default position of the plural marker is immediately after the finite verb (15a), this marker may also be observed distant to the verb root (15b), i.e. rightwards of the clitic *lo*.[10] This variation can be described as a form of *metathesis*, due to the fact that, on the surface, the typical order of the agreement morpheme *-n* and the final clitic *lo* is inverted, from '*n•lo*' to '*•lon*'. Just like Turkish medial and double agreement, this "unexpected" alternative realization of the Spanish agreement morpheme *-n* is limited to colloquial standard Spanish and certain nonstandard dialects of Spanish. Importantly, only those nonstandard varieties that allow this unexpected order of AGR also allow the plural marker *-n* to be reduplicated, as in (15c).

(15) a.   commonly-found form
            vénda **n**•lo
            'sell-PL it'

      b.   alternative form (metathesis of *lo* and *-n*)
            vénda •lo**n**

      c.   alternative form (reduplication of AGR, *-n*)
            vénda **n**•lo**n**

The GR analysis of the Spanish agreement data assumes that the unexpected order of AGR (i.e. *metathesis*) and the double realization of AGR are related, insofar as both are derived via a single mechanism, with only slight differences in how the mechanism applies.

The GR formalism derives each of the patterns in (15) via a combination of reduplication and deletion operations. The formalism is presented in (16), in which square brackets delimit the size of the string of morphemes to be reduplicated, angular brackets specify the target of deletion, and grey shading represents deletion itself.

(16) *The GR formalism* (adapted from Arregi & Nevins 2018: ex.18)

a.   Repeat all material inside […]
      [AB] → ABAB

b.   **for doubling of A:** [A > B] → ABA~~B~~ → ABA
      (where > means "delete the material after > in the reduplication part")

c.   **for doubling of B:** [A < B] → ~~A~~BAB → BAB
      (where < means "delete the material before < in the original part")

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[10] Harris and Halle (2005) and Arregi and Nevins (2018) place the symbol '•' before clitics. I also adopt this convention in the Spanish examples presented in the main text.

     d.   **for complete metathesis (to derive BA from AB):**
          [A > < B] → ABAB → BA

The GR analysis of the Spanish example in (15c) is encoded in the GR rule "[n > •lo]" in (17). This rule states that the plural agreement *-n* and the clitic *lo* are reduplicated and then the second instance of *lo* (i.e. the reduplicant) is deleted.

(17)   *Plural doubling in Spanish*

A	[B > C]	→	A-	B	C- B	C	=	A	-B	C	-B
vénda	[-n > •lo]	→	vénda	-n	•lo -n		=	vénda	**n**		•lo **n**

The GR analysis of the metathesis example in (15b) is encoded in the GR rule "[-n > < •lo]" ın (18). This rule states that the plural agreement *-n* and the clitic *lo* are reduplicated and then the original *lo* is deleted in the first part, and the reduplicated form of *-n* is deleted in the second part.

(18)   *Metathesis of plural marker and pronominal clitic in Spanish*

A	[B > < C]	→	A-	B	C-	B	C	=	A	-C	-B
vénda	[-n > < •lo]	→	vénda		•lo	-n		=	vénda	•lo	**n**

The application of GR must be restricted to avoid overgenerating doubling and metathesis. Arregi and Nevins (2018) argue that GR is only triggered as a repair mechanism. They claim that, in those varieties of Spanish that permit the "unexpected" realization of AGR, the agreement morpheme *-n* is reanalyzed as a *second position clitic*, i.e. a clitic that must occupy a non-initial position within the post-verbal-stem *clitic domain* in which it is contained. This means that, in the clitic domain in the examples being discussed (which is composed of *-n* and *lo*), at least one occurrence of *-n* must be realized in a non-initial position within that clitic domain. To ensure that this *non-initiality constraint* is obeyed by the reanalyzed second position clitic *-n*, GR is triggered. Regardless of whether GR yields the configuration exemplified by (15b) or (15c), the non-initiality constraint is obeyed in both cases.

4.2   Generalized Reduplication applied to Turkish AGR

I now apply the GR formalism to the Turkish final, medial, and double AGR configurations, which are schematized in (19) for ease of reference.

(19) a.   final AGR: V + TAM …   + v_{COP} + TAM + **AGR**
        b.   medial AGR: V + TAM + **AGR** … + v_{COP} + TAM
        c.   double AGR: V + TAM + **AGR** … + v_{COP} +TAM + **AGR**

As mentioned in section 3, AGR is traditionally analyzed as a projecting syntactic head that selects for the structurally highest TAM projection in any given verbal domain. Adopting this analysis entails that final AGR is the default pattern in (19), and that the medial and double realizations in (19b) and (19c) are derived from it. Hereafter, I will assume this to be the case. Let us first employ the GR formalism to derive double AGR configurations. To be concrete, I will apply the formalism to the example in (20) in which 3PL is doubled, which is attested in the Erzurum variety of Anatolian Turkish (Gemalmaz 1973: 440).

(20) başla -r   **-lar** -Ø   -sa   **-lar**
      start -AOR -3PL -COP   -COND -3PL
      'If they start…'

The GR analysis of (20) is presented in (21). The GR rule in (21a) states that the verbal complex begins life as a standard final AGR configuration but that (i) the copula, the conditional marker, and AGR are then reduplicated and (ii) the copula and the conditional marker are deleted in the first part, i.e. the base. This yields the desired "double AGR" surface configuration, as the output representation in (21b) shows.[11]

(21) a.   *GR rule for generating (20)*
            V   -TAM [-V$_{COP}$ -TAM   < -**AGR**]
            başla -r   -Ø   -sa   **-lar**

      b.   *Output of applying the GR rule in (21a)*
            V   -TAM -v_{COP} -TAM   -**AGR** -V$_{COP}$ -TAM   -**AGR**
            başla -r   **-lar** -Ø   -sa   **-lar**

The GR analysis of the medial AGR permutation on (20) in (22) is presented in (23). The GR rule in (23a) states that the verbal complex begins as a standard final AGR configuration but that (i) the copula, the conditional marker, and AGR are then reduplicated, and (ii) the copula and the conditional marker are deleted in the first / base part, and (iii) AGR is deleted in the second / reduplication part. This yields the desired "medial AGR" surface configuration, as output representation in (23b) shows.

(22) başla -r   **-lar** -Ø   -sa
      start -AOR -3PL -COP   -COND
      'If they start…'

(23) a.   *GR rule for generating (22)*
            V   -TAM [-V$_{COP}$ -TAM   > <   -**AGR**]
            başla -r   -Ø   -sa   **-lar**

      b.   *Output of applying the GR rule in (23a)*
            V   -TAM -v_{COP} -TAM   -**AGR** -V$_{COP}$ -TAM   -**AGR**
            başla -r   **-lar** -Ø   -sa

Recall from section 2 that the distribution of the 3PL AGR morpheme is entirely unconstrained in the Turkish verbal domain: it may occur medially and doubly with any host TAM morpheme, regardless of whether the TAM morpheme in question ends in a vowel or a consonant. The GR analysis presented above for the 3PL AGR *-lEr* morpheme in (20) and (22) extends without modification to all of the licit cases of medial and double AGR in other persons and numbers given in (11), as the reader may verify for herself. The only difference is that, in all the licit cases of medial and double AGR aside from *-lEr*, the medial instance of

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[11] Whenever feasible, the morphosyntax of the verbal domain is simplified in the GR formalisations for clarity's sake (for instance, the feature bundle that is composed of person and number is simply called AGR).

AGR will be realized as phonologically null if its host TAM ends in a consonant. As mentioned in section 2, this is a phonological constraint that is entirely independent of GR. Moreover, this constraint applies **after** GR occurs, and does not include in its input the morphemes deleted during GR. Before moving on to discuss the ways in which GR must be restricted for use in Turkish, I will first provide some concrete examples of how GR and the phonological constraint on the realization of AGR interact.

Let us first consider an unacceptable case such as (24a). The initial morphological context that serves as the input to the GR rule is suitable for the insertion of the 2SG AGR$_F$ morpheme *-n*, as AGR immediately follows a TAM$_K$ morpheme *-sE* (24b). Upon the GR rule being applied and reduplication and deletion taking place, the context for VI-insertion into AGR changes: AGR now immediately follows the TAM$_Z$ morpheme *-EcEK* (24c). Because this morpheme ends in a consonant, *-n* can no longer be inserted into AGR. Instead, the AGR$_F$ morpheme is inserted, resulting in the string in (24c). Although this string is well-defined from the viewpoint of GR and VI-insertion, *göreceksе* is unacceptable on the intended second person singular reading for an entirely independent reason: Turkish complex verbs must contain at least one overt instance of AGR (putting aside the always-null 3SG), (Sezer 2001, Ido 2003, Skinner 2009).

(24) a. * gör-ecek-n-Ø-se
see-FUT-2SG-COP-COND
'If you will see (it)...'

b. *GR rule for generating (24a)*

V	-TAM	[-v_{COP}	-TAM	><	-**AGR**]
gör	-ecek	-Ø	-se		-**n**

c. *Output of applying the GR rule in (24b)*

V	-TAM	-v_{COP}	-TAM	-**AGR**	-v_{COP}	-TAM	-**AGR**
# gör	-ecek			-Ø	-Ø	-se	

The situation described above, in which medial AGR is exponed as the null morpheme, is avoided whenever medial AGR immediately follows a TAM$_K$ or TAM$_{RZ}$ morpheme after GR applies. In such cases, an overt AGR$_F$ morpheme expones the medial instance of AGR (25).

(25) a. Başla-yaca-nız-sa   (medial AGR$_F$ after TAM$_{RZ}$)
start-FUT-2PL-COND
'If you will start..."

b. *GR rule for generating (25a)*

V	-TAM	[-v_{COP}	-TAM	><	-**AGR**]
başla	-yaca	-Ø	-sa		-**nız**

c. *Output of applying the GR rule in (25b)*

V	-TAM	-v_{COP}	-TAM	-**AGR**	-v_{COP}	-TAM	-**AGR**
başla	-yaca			-**nız**	-Ø	-sa	

While the interaction between GR and VI-insertion demonstrated in (24) and (25) is reasonably straightforward, it is important to highlight that it represents a radical departure from orthodox conceptions of Turkish subject agreement, according to which the AGR morphemes from the traditional *z*- and *k*-paradigms are licensed only when they match with the TAM morphemes that induce their inclusion in that paradigm. The approach outlined here suggests that the traditional agreement paradigms are a partial description of a particular morphological interaction that occurs in the Turkish verbal domain.

4.3 Restricting the application of GR in the Turkish verbal domain

The GR formalism as described so far is unconstrained and therefore massively overgenerates doubling in the Turkish verbal domain. For example, nothing currently prevents morphemes other than AGR from being doubled. Other morphemes will be doubled whenever the deletion statement or statements in a GR rule (i.e. the angular brackets) occupy a position that is not adjacent to AGR. To see this, consider (26a), which is a permutation on (21a) in which the GR deletion statement is placed between v_{COP} and a TAM morpheme, rather than between a TAM morpheme and AGR. This rule generates a verbal complex in which the TAM morpheme – in this case, the conditional marker – is reduplicated (see (26b) and its better-glossed equivalent in (26c)). Such a configuration is not attested in the literature on Turkish dialects (to my knowledge) and is also completely unacceptable in the colloquial standard Turkish equivalent to (26b-c) for speakers who permit double AGR configurations (such as me).[12]

(26) a.

	V	-TAM[	$-v_{COP}<$		-TAM	-**AGR**]
	başla	-r	-Ø		-sa	-**lar**

b. *Output of applying the GR rule in (26a)*

		V	-TAM	$-v_{COP}$	-TAM	-**AGR**	$-v_{COP}$	-TAM	-**AGR**
*		başla	-r		-sa	-**lar**	-Ø	-sa	-**lar**

c. *Output of applying the GR rule in (26a)*

*	başla	-r	-sa	-**lar**	-Ø	-sa	-**lar**
	start	-AOR	-COND	3PL	-COP	-COND	-3PL

'If they start…'

To avoid the doubling of morphemes other than AGR, a constraint on GR must be introduced that restricts the placement of the deletion statements in a GR rule to a position adjacent to AGR. This constraint, which is presented in (27), must actually be defined over syntactic heads, as morphemes occupy syntactic termini from a technical perspective (Embick 2015:5).

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[12] At first glance, Eastern Anatolian dialects of Turkish (e.g. Erzurum, Erzincan, Kars, Van, Diyarbakır, etc.) appear to allow doubling of the conditional, as structures such as (i), in which *-sA* appears twice and AGR appears medially, are attested in the literature (Baydar 2012 and the references in there). The fact that the second occurrence of *-sA* is an intensifier, and therefore has semantic import (ibid.), demonstrates that this is not an instance of 'true' doubling, however, as true doubling has no semantic import (as mentioned in section 1). The fact that the second occurrence of *-sA* is distinct is from the first is highlighted in the gloss, in which the second occurrence is glossed, following Baydar (2012) and the references in there, as *if*.

(i) Al-ır-**sa**-m-**sa**   (from Baydar 2012: 87)
take-AOR-COND-1SG-if
'If I get (it)…'

(27) *Deletion adjacency constraint on Generalized Reduplication in Turkish*
In a given domain of reduplication that includes AGR
(i.e. [… AGR …]), any deletion statement (< or >) or set of deletion statements
(< > or > <) must appear adjacent to AGR.

In addition to ruling out cases such as (26b-c), the deletion adjacency constraint in (27) also straightforwardly explains the observation from section 2 that AGR_C morphemes are banned from medial and double AGR configurations. To see this, consider the unacceptable complex verb in (28a), in which an AGR_C morpheme occupies the medial position. The GR rule that attempts to successfully derive the medial AGR pattern in (28a) is given in (28b). Notice that this rule treats the AGR_C morpheme as exponing multiple syntactic heads, namely the copula verb, $T_{[PRES]}$, and a head composed of φ-features, following Lees (1962), Kornfilt (1996), and Güneş (2020) (recall the VI entries for AGR_C morphemes listed in (9ii) from section 2).

(28) a. * gör-eceğ-**iz**-Ø-miş
see-FUT-1PL-COP-EVD
'We would see (it).'

b. *GR rule for generating (28a)*
V-TAM[-v_{COP} -TAM   - v_{COP} -$T_{[PRES]}$ > <   -**AGR**]

gör-ecek -Ø -miş   -**iz**

Although the GR rule in (28b) is well-defined insofar as it obeys the deletion adjacency constraint in (27), the application of this rule yields a morphological environment in which an AGR_C morpheme cannot be present. This is because (28b) will delete the copula verb and the TAM morpheme in the base, and consequently an AGR_C morpheme, which expones the group of syntactic heads [V_{COP}, $T_{[PRES]}$, AGR], will not be inserted here (see (29), which is derived by the GR rule in (28b)). Put simply, the application of the GR rule in (28b) will destroy the morphological environment in which an AGR_C morpheme may appear.

(29) V-TAM-V_{COP}-TAM-v_{COP}-T_{[PRES]}-**AGR**-V_{COP}-TAM-v_{COP}-T_{[PRES]}-**AGR**

XX   *XX*
* gör-ecek   **-iz**   -Ø -miş   **-iz**

The rule in (28b) can, at least in theory, still be applied to an input such as *görecekmişiz*. The result is the string *görecekmiş* in (30). In this case, (i) a less complex AGR_F morpheme is inserted into the stranded medial AGR position (in this case, the null morpheme), (ii) $T_{[PRES]}$ is not realized because it does not have its own independent exponent in Turkish (Kornfilt 1996, Kelepir 2001 a.o.), and (iii) the copula is not exponed because, roughly speaking, Turkish copulas are exponed only when the items adjacent to them are also exponed (see Lees 1962, Sezer 2001, Kahnemuyipour and Kornfilt 2010, among others, for discussion of the complex phonotactics of the Turkish copula). Although this string is well-defined from the viewpoint of GR and VI insertion, it is unacceptable on the intended reading for an independent reason already mentioned in section 4.2: Turkish complex verbs must contain at least one overt instance of AGR (putting aside the always-null 3SG).

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(30) V-TAM -v_{COP}-TAM-v_{COP}-T$_{[PRES]}$-**AGR**-v_{COP}-TAM-v_{COP}-T$_{[PRES]}$-**AGR**
     gör-ecek   -Ø -Ø   -miş -Ø

To ensure that the morphological environment in which an AGR$_C$ morpheme appears is not destroyed by GR, the GR rule must be defined such that it treats the copula verb, T$_{[PRES]}$, and AGR as an unbreakable unit. But such a GR rule would require deletion statements to be placed nonadjacent to AGR (see (31)), which violates the deletion adjacency rule in (27). Consequently, no such rule is permitted.

(31) V-TAM [-v_{COP} -TAM ><   -v_{COP} -T$_{[PRES]}$ **-AGR**]
(32)
     gör-ecek -Ø   -miş   **-iz**

Although well-formed according to the principles of GR, reduplication without any deletion is not permitted in the Turkish verbal domain. For instance, entire copula domains (i.e. groups containing the copula verb, a TAM morpheme, and AGR) cannot be reduplicated verbatim, regardless of whether these copula domains are realized by multiple, individual exponents (see (33)) or one exponent (as in the case of AGR$_C$ morphemes, see (34)). Nor can a single morpheme be reduplicated, as in (35).

(33) a. * gör-ür-(i)-se-ler-(i)-se-ler
        see-AOR-COP-COND-3PL-COP-COND-3PL
        'If they see (it)…'

     b. *GR rule for generating (32a)*
        V   -TAM [-v_{COP} -TAM   **-AGR**]
        gör -ür   -(i)   -se   **-ler**

(34) a. * gör-müş-üz-üz
        see-EVD-COP.T$_{[PRES]}$.1PL-COP.T$_{[PRES]}$.1PL
         'We would apparently see (it).'

     b. *GR rule for generating (33a)*
        V   -TAM   [-V$_{COP}$ -T$_{[PRES]}$ **-AGR**]

        gör   -müş   **-üz**

(35) a. * gör-dü-nüz-nüz
        see-PST-2PL-2PL
        'You saw (it).'

     b. *GR rule for generating (34a)*
        V   -TAM [**-AGR**]   [**-AGR**]
        gör -dü   **-nüz**   **-nüz**

Although these "full reduplication" cases could be ruled out by stipulating that a GR rule

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must contain at least one deletion statement, I opt to ban these cases by appealing to a constraint that was suggested independently of GR. This constraint is the *stuttering prohibition* (Kornfilt 1986), which has been found to restrict the distribution of agreement not only in the verbal domain in Turkish but also elsewhere in the language, such as in the nominal domain (Tat and Kornfilt 2018).[13] As understood here, the stuttering constraint bans the immediate and verbatim repetition of any given string of morphemes within a complex verb.

In section 4.2, I presented examples to demonstrate how GR and the phonological constraint on AGR (namely, 'Spell-Out AGR as null if its TAM host ends in a consonant') interact. However, I refrained from providing an example in that section in which medial AGR appears between a TAM_K and TAM_Z morpheme, because of complications that arise through introducing AGR_C morphemes. Having dealt with AGR_C morphemes in this present section, I can now finish my analysis by discussing a concrete example of how GR and the phonological constraint on AGR interact in an example where medial AGR intervenes between a TAM_K and TAM_Z morpheme.

In (35), the initial morphological context that serves as the input to the GR rule is suitable for the insertion of the 2PL AGR_C morpheme *-sInIz*, as AGR forms part of a consecutive string with v_{COP} and -$T_{[PRES]}$ (35b). Upon the GR rule being applied and reduplication and deletion taking place, the context for VI-insertion into AGR changes: the instance of AGR that avoids deletion now immediately follows the TAM_K morpheme *-sA* (36). Because deletion destroys the morphological environment in which the AGR_C morpheme *-sInIz* can be inserted, an AGR_F morpheme will be inserted instead. Because -sA ends in a vowel, and overt AGR_F morpheme can be inserted, namely *-nız*. In summary, the example in (35) and its accompanying GR rule demonstrate how, via GR, a final AGR_C morpheme in an input string "transforms" into a medial AGR_F morpheme in the output string.[14]

(35) a. Başla-sa-nız-mış   (medial AGR_F after TAM_K)
          start-COND-2PL-PERF
          'If you had started...'

      b. *GR rule for generating (35a)*
          V -TAM[-v_{COP} -TAM   -v_{COP} -$T_{[PRES]}$ $><$ -**AGR**]

          başla   -sa   -Ø   -mış   **-sınız**

(36) *Output of applying the GR rule in (35b)*
      V-TAM- v_{COP}-TAM-v_{COP}-$T_{[PRES]}$-**AGR**-v_{COP}-TAM-v_{COP}-$T_{[PRES]}$-**AGR**
      başla-sa   **-nız**   -Ø   -mış   -Ø   -Ø

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[13] Based on cross-linguistic observations, Richards (2010) proposes a similar prohibition, which he calls the *distinctness condition*.

[14] The medial agreement data in (35) in the main text was reported to be unacceptable in Good & Yu (2000: 70). Yet, such examples are attested in spoken language and are judged as acceptable by me and the native speakers that I have consulted. Precisely the same disparity in reported judgments applies to the double AGR permutation on (35) in (i), too. See Güneş (2020) for possible reasons why these data receive differing judgments in the literature.

(i) Başla-sa-nız-mış-sınız   (TAM_K + AGR_F + TAM_Z + AGR_C)
     start- COND-2PL-PERF-2PL
     'If you would have had started…'

5   Why GR in Turkish?

In the previous section, I presented a "Generalized Reduplication" analysis of the variable positioning and optional doubling of subject agreement markers in the Turkish verbal domain. This analysis is successful insofar as it obtains descriptive adequacy (i.e. it does not undergenerate) and can be easily restricted to avoid overgeneration in a non-stipulatory manner by appealing to well-motivated constraints on GR's application and to independent constraints known to be active in Turkish. The question that remains to be answered is why Generalized Reduplication occurs in Turkish in the first place. Recall from section 3 that Arregi and Nevins (2018) motivate the GR operations that occur in Spanish by casting them as a repair mechanism that is triggered to ensure that a *non-initiality constraint* on Spanish clitics that occupy the post-verbal-stem domain is satisfied. This repair mechanism is triggered only in non-standard versions of Spanish because it is only in these varieties that agreement morphemes are reanalyzed as clitics.

Is GR also a repair mechanism in Turkish? If so, what illicit configuration is GR triggered to repair? As far as I can see, the most plausible "repair-based" motivation for GR in Turkish runs as follows: in nonstandard Turkish, the copula verb can be optionally burdened with the requirement that it must immediately follow an instance of AGR (for some currently unknown reason). Because this requirement is not satisfied in standard final AGR configurations, GR is triggered to generate a medial or double AGR pattern, which will fulfill this requirement.

The problem with this (very speculative) proposal is that GR may occur in nonstandard Turkish even when its application does not yield a configuration in which the copula immediately follows an instance of AGR. This is observed in the example in (37a), in which the (Q)uestion particle *-mI* occupies a medial position that intervenes between the copula verb and medial AGR (the example in (37a) is generated by the GR rule in (37b); see the output representation in (37c)).

(37) a.   Başla-sa-lar-**mı**-y-dı-lar?
            start-COND-3PL-**Q**-COP-PAST-3PL
            'Should they have started already?'

      b.   *GR rule for generating (37a)*
            V   -TAM[-Q   -v_{COP} -TAM   <   -AGR]
             başla -sa   **-mı**   -y   -dı   -lar

      c.   *Output of applying the GR rule in (37b)*
            V   -TAM -Q -V$_{COP}$ -TAM -AGR-Q -V$_{COP}$ -TAM   -AGR
             başla -sa   -lar   **-mı** -y   -dı   -lar

In the absence of a plausible repair-based motivation for GR in Turkish, one might speculate instead that GR is simply an optionally-employed morphological operation in Turkish, which is so heavily prescribed against in standard Turkish that it is judged to be unacceptable for most speakers of the standard variety. Although this explanation has the benefit of simplicity, it does not provide the restrictive power that a repair-based motivation can potentially offer. For example, this "prescription" proposal does not explain why reduplication domains must contain an instance of AGR. Furthermore, it does not explain why medial AGR (or variable order of AGR all together) is observed in the Turkish verbal domain but not the Turkish nominal domain (e.g. possessive agreement) (Kornfilt 1984, Göksel 1988, Göksel 2007).

Although one can further stipulate that reduplication domains must contain an instance of the copula verb, this is a restatement of the facts, not an explanation.

In summary, it appears that the GR approach to Turkish subject agreement will only acquire sufficient restrictiveness and explanatory adequacy if it can be coupled with theory of what grammatical configuration triggers it. If no such theory is forthcoming then this situation might be construed as a reason to discard the current morphotactic approach to subject agreement in favor of Güneş' (2020) morphosyntactic approach.

6   Summary

In this paper, I outlined a morphotactic theory of "unexpected" cases of subject agreement (AGR) in the Turkish verbal domain. According to this theory, medial and doubled patterns of AGR are generated from the default peripheral AGR pattern via two morphological processes: reduplication and deletion. Such that, for this analysis, in medial agreement, the medial agreement marker is the original/base (and underlyingly peripheral) form of agreement. In cases of double agreement, final occurrence of agreement is then the reduplicated agreement morpheme. Although the theory I advanced successfully captures the complex distribution of medial and double AGR, it currently lacks the independent motivation enjoyed by very similar theories that have been developed to explain "unexpected" morphological patterns Spanish and Basque (Harris and Halle 2005, Arregi and Nevins 2012, 2018). Whether this shortcoming can be overcome or whether it indicates that the "unexpected" Turkish subject agreement require an alternative, morphosyntactic analysis (such as the analysis recently offered by Güneş (2020)) remains an open issue.

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