Inflectional morphology in the Turkish verbal domain: Allomorphy, hybridity and change

Introduction. Turkish subject-verb agreement is realized with morphemes from three different paradigms, the *k*-, *z*- and reduced *z*-paradigm, referred to in the following as Agr_k, Agr_z and Agr_{rz} (1). These terms should be understood to exclude the third person markers, whose distribution is trivial. Each paradigm has been reported to follow a distinct set of TAM markers, e.g., Agr_k after TAM_k (2) (Güneş, 2020, 2021).

(1)

	Agr_k		**Agr_z**		**Agr_{rz}**	
	Singular	Plural	Singular	Plural	Singular	Plural
First	*-m*	*-k*	*-(y)Im*	*-(y)Iz*	*-m*	*-z*
Second	*-n*	*-nIz*	*-sIn*	*-sInIz*	*-n*	*-nIz*
Third	$\emptyset$	*-lEr*	$\emptyset$	*-lEr*	$\emptyset$	*-lEr*

(2) a. TAM_k (preceding Agr_k): *-DI* (past), *-sE* (conditional)
 b. TAM_z (preceding Agr_z): *-Iyor* (progressive), *-EcEk* (future), *-Er* (aorist), *-mIş* (evidential)
 c. TAM_{rz} (preceding Agr_{rz}): *-Iyo* (progressive), *-EcE* (future)

Kornfilt (1996) has proposed that TAM_z-Agr_z and TAM_k-Agr_k verbs differ in their underlying syntactic structure, in that the former but not the latter contain a silent copula between TAM and Agr (3). This is because TAM_k are simple tenses, but TAM_z participial tenses which require a copula in finite environments.

(3) a. gel-iyor $\emptyset$-sunuz
 come-PROG COP-2PL
 root-**TAM_z COP-Agr_z**
 'you are coming'

 b. gel-di-niz
 come-PAST-2PL
 root-**TAM_k-Agr_k**
 'you came'

This analysis correctly predicts several diverging properties of the two sets of verbs. However, Kornfilt does not address the status of TAM_{rz}-Agr_{rz} verbs, documented only recently (Göksel, 2010; Güneş, 2020, 2021). The present study thus investigates whether they should be analyzed as containing a silent copula based on the diagnostics used by Kornfilt. I find that TAM_{rz}-Agr_z verbs have mixed properties, patterning with TAM_k-Agr_k for some diagnostics and with TAM_z-Agr_z for others. In response, I propose that the distinction between simple and participial responses has been levelled in diachronic development and that TAM_{rz} and Agr_{rz} morphemes have developed as hybrid forms. The diagnostics used by Kornfilt no longer detect an underlying copula but are determined by the more concrete features of the TAM and agreement morphemes.

Distribution and analysis of the agreement paradigms. Based on consultation of over 20 native speakers, I found that the distribution of the agreement paradigms differs from (2) in two ways. First, Agr_k can surface after TAM_{rz} *-Iyo* in some dialects (4). Secondly, Agr_z can surface after TAM_{rz} (5) once independent confounds are controlled for. The reverse, TAM_z-Agr_{rz}, is not licensed even for morpheme combinations not ruled out on phonotactic grounds (6). Capturing this asymmetry is a crucial desideratum for the analysis.

(4) %bul-uyo-k
 find-PROG-1PL
 root-**TAM_{rz}-Agr_k**
 'we are finding'

(5) oyn-uyo-sunuz
 play-PROG-2PL
 root-**TAM_{rz}-Agr_z**
 'you are playing'

(6) *gel-iyor-nuz
 come-PROG-2PL
 root-**TAM_z-Agr_{rz}**
 'you are coming'

I analyze the morphophonological variants of progressive and future TAM markers (TAM_z: *-Iyor/-EcEk*, TAM_{rz}: *-Iyo, -EcE*) as allomorphs in free variation, and the three agreement paradigms as contextual allomorphs distributed as in (7). Contexts which match both (7b) and (7c) license both Agr_z and Agr_{rz}.

(7) a. Agr_k is inserted after PAST, COND or (in some dialects) PROG features and an open syllable;
 b. Agr_z is inserted after PROG, FUT, AOR or EVID features;
 c. Agr_{rz} is inserted after PROG, FUT, AOR or EVID features and an open syllable.

Agr_{rz} and Agr_z select for the same morphosyntactic features; note that including AOR and EVID among the TAM features licensing Agr_{rz} is vacuous since they do not have a realization ending on an open syllable. At the same time, Agr_{rz} and Agr_k select for the same morphophonological environment. Note also that as seen in (1), Agr_{rz} is syncretic with Agr_k in all but one person/number combinations, but also identical to Agr_z

except for being one or two segments shorter. Agr_{rz} is thus a hybrid of Agr_k and Agr_z in terms of both its distribution and its morphophonological shape. Equally, TAM_{rz} is a hybrid of TAM_k and TAM_z, realizing the same morphosyntactic features as TAM_z but ending, like TAM_k, on a vowel.

Testing for simple vs. participial status. I tested whether TAM_{rz}-Agr_{rz} verbs contain a silent copula based on Kornfilt's (1996) diagnostics, drawing partly on results previously reported by Güneş (2020, 2021). I here report the results for 4 out of 6 diagnostics. For those, I focus only on progressive TAM_{rz} *-Iyo* since future *-EcE* presents additional complications. **First**, participial (8) but not simple (9) tenses can be followed by the negation marker *değil*. TAM_{rz} *-Iyo* behaves like a participial tense in this respect (10).

(8)	gid-**ecek değil**-im	(9)	*git-**ti değil**-im	(10)	gid-**iyo değil**-im
	go-**FUT NEG**-1SG		go-**PAST NEG**-1SG		go-**PROG NEG**-1SG
	'I will not go'		'I did not go'		'I am not going'

Second, participial (11) but not simple (12) tenses can be followed by the epistemological copula *-DIr*. TAM_{rz} again patterns with participial tenses (13).

(11)	gid-**ecek-tir**	(12)	*git-**ti-dir**	(13)	gid-**iyo-dur**
	go-**FUT-EPIST**		go-**PAST-EPIST**		go-**PROG-EPIST**
	's/he will definitely go'		's/he definitely went'		's/he is definitively going'

Third, the polar question marker *-mI* surfaces between TAM_z and Agr_z (14) but after TAM_k-Agr_k (15). In forms with TAM_{rz} *-Iyo*, *-mI* surfaces after TAM-Agr, as with simple tenses (16) (Güneş, 2020, 2021).

(14)	a.	gel-ecek-**mi**-siniz	(15)	a.	git-ti-niz-**mi**	(16)	a.	gid-iyo-nuz-**mu**
		come-FUT-**Q**-2PL			go-PAST-2PL-**Q**			go-PROG-2PL-**Q**
		'Will you go?'			'Did you go?'			'Are you going?'
	b.	??/*gel-ecek-siniz-**mi**		b.	*git-ti-**mi**-niz		b.	*gid-iyo-**mu**-nuz
		come-FUT-2PL-**Q**			go-PAST-**Q**-2PL			go-PROG-**Q**-2PL

Fourth, Agr_z morphemes are obligatorily prestressing (17), attributed by Kabak and Vogel (2001) to the fact that the copula assumed to precede Agr_z can independently be shown to be prestressing. Agr_k is optionally prestressing (18). The same holds for Agr_{rz} (19) (Güneş, 2020, 2021), suggesting a simple tense analysis.

(17)	a.	gel-**ecék**-siniz	(18)	a.	gel-**dí**-niz	(19)	a.	gel-**iyó**-nuz
		come-FUT-2PL			come-PAST-2PL			come-PROG-2PL
		'you will come'			'you came'			'you are coming'
	b.	*gel-ecek-**siníz**		b.	gel-di-**níz**		b.	gel-iyo-**núz**

In sum, TAM_{rz}-Agr_{rz} verbs with *-Iyo* pattern with TAM_z-Agr_z verbs with respect to *değil* and *-DIr*, but with TAM_k-Agr_k verbs with respect to *-mI* and stress assignment. This mixed behavior is unexpected under Kornfilt's analysis which predicts that TAM_{rz} morphemes either should or should not require a copula.

Consequences. I propose that the syntactic distinction between simple and participial tenses has undergone, or is undergoing, a diachronic process of analogical levelling (e.g., Kiparsky, 2012; Lahiri, 2000), during which the silent copula inflected by Agr_z became integrated into the original participle, as a standard case of grammaticalization. TAM_{rz} and Agr_{rz} morphemes could then emerge as hybrids of the other two sets of forms. In contemporary varieties, Kornfilt's diagnostics are no longer determined by the presence of a copula. Instead, the diagnostics from *değil* and *-DIr* are determined by the features of the TAM morpheme – being only licensed in the presence of PROG, FUT, AOR and EVID –, correctly predicting that TAM_{rz} patterns with TAM_z. On the other hand, the diagnostics from *-mI* and stress are determined by the agreement paradigm. Agr_z morphemes are lexically specified as being obligatory prestressing and having to follow *-mI*. Crucially, this holds even in the context of TAM_{rz} markers (20)–(21):

(20)	a.	oyn-**uyó**-sunuz	(21)	a.	oyn-uyo-**mu**-sunuz
		play-PROG-2PL			play-PROG-Q-2PL
		'you (pl.) are playing'			'are you (pl.) playing?'
	b.	*oyn-uyo-**sunúz**		b.	??/*oyn-uyo-sunuz-**mu**

In sum, the dichotomy between TAM_z-Agr_z and TAM_k-Agr_k is historically motivated but breaking down. Their contrasting properties are now encoded in a more fine-grained fashion, and hybrids have emerged.