Morphosyntax of Number in Turkish

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The expression of Number has attracted a lot of attention in studies of language typology, semantics, and syntax. Typological studies have long observed some degree of cross-linguistics variation in number marking. The relevant question is whether this mismatch corresponds to some semantic variation in the denotation of nominals in relevant languages. Chierchia (1998) argues, along these lines, that nouns of classifier languages are kind-denoting, thus inherently mass; and that classifiers are required to create a level for counting. Because kind-denoting nouns are already plural in this view, classifier languages are predicted to lack number markers.

On the syntactic side, however, attention is mostly focused on how number specification is achieved morpho-syntactically, and what factors motivate its expression. Varying proposals have been made regarding where number markers are realized in the nominal domain. Ritter (1992) inserts number markers in NumP that projects above the NP, while Sauerland (2003) puts them in φ P that projects above the DP. Wiltschko (2008) and Butler (2011), on the other hand, propose that number markers can target almost any syntactic projection in the nominal spine, and can occupy heads as well as adjoined positions, with concomitant interpretive differences. Potential loci for number markers include $\sqrt{$ (the acategorial nominal root), nP, #P, QP, and DP.

This study addresses the morphosyntactic expression of Number in Turkish, and proposes, in support of Sauerland (2003), that NP-attached number markers arise as uninterpretable agreement reflexes of matching interpretable counterparts in some higher functional head. In the case of object- and kind-referring nominals, the relevant projection is indeed the DP layer, as Sauerland (2003) argues. I, however, demonstrate that verbal projections are also involved in checking NP-attached number markers.

In Turkish, which lacks lexicalized determiners, the referential status of a nominal is typically established by overt structural case (Ketrez, 2004; Öztürk, 2005). Nominals lacking overt structural case are interpreted non-referentially. Further, non-case-marked nominals are always interpreted number-neutrally while their case-marked counterparts are necessarily number-specified (1). On the other hand, number-marked nominals cannot appear caseless (2). Combining these observations, we can see that both Number and Case is only relevant for DPs, and thus explain why number-marked forms cannot appear in downward entailing contexts (3a), but can do so in canonical subject positions (3b). Therefore, I propose, with Sauerland (2003), that NP-attached number markers are uninterpretable features that must match interpretable counterparts in ϕ P that takes the DP as a complement (5a).

The requirement that number-marked nominals must also be case-marked is seemingly violated in certain contexts. These minimally involve plurality of (sub)kinds (4a) and plurality of events (4b) (also known as pluractionality). In (4b), for instance, the nominals *masalar* 'tables' and *küfürler* 'swears' encode the plurality of not the entities denoted by the nouns but the events denoted by the verbs. Interpreted as bare nouns semantically, they are correctly predicted to lack overt structural case due to the lack of the DP layer. In (4a), on the other hand, the NP-attached plural marker induces a *types-of* reading, restricting the kind-referring domain of *motorlar* 'engines' to pluralities. Under the assumption that kind-referrers are DPs, the lack of overt case here is mysterious. I have no definitive answer as to why this might be the case, but I suspect that it is

related to the contrast between familiar (which always require overt case) and non-familiar kinds (which lack overt case). Nevertheless, the proposal still holds that all number markers are checked by some higher functional projection: the usual φP in the case of plurality of types (5b), and a VP-level PluracP in the case of pluractionality (5c).

Taken together, the analysis proposed here both supports Sauerland's (2003) ϕ P account of Number and demonstrates that functional heads that check NP-attached number markers minimally involve Plurac^o projected in the verbal domain.

Examples:

 (1) a. Ali <i>makale</i> oku-du. Ali article read-PST 'Ali read {an article / articles / *the article / *the articles}.' 	(non-referential, number-neutral)
 b. Ali <i>makale-yi</i> okudu. Ali article-ACC read-PST 'Ali read {*an article / *articles / the article}.' 	(referential, number-specified)
(2) a. Ali <i>makale-ler*(-i)</i> oku-du. 'Ali read the articles.' (c.f. (1a))	
b. <i>Makale-ler*(-in)</i> çeviri-si bit-ti. article-PL-GEN translation-POSS finish-PST 'The translation of the articles has finished.' (c.f. <i>Makale</i>	çeviri-si bit-ti.)
 (3) a. {<i>Çocuğ-un</i> / *Çocuğ-Ø-un / *<i>Çocuk-lar-ın</i>} child-2SG.POSS child-SG-2SG.POSS child-PL-2SG.POSS 'Do you have (one or more) children?' 	var mı? (negative) exist QUES
b. {Çocuk-Ø / Çocuk-lar} siz-i gör-mek ist-iyor. child-SG child-PL you-ACC see-INF want-IMPF '{The child / The children} want to see you.'	(canonical subject)
 (4) a. Mühendisler hidrojen-le çalış-an <i>motor-lar</i> icat et-engineers hydrogen-INST work-REL engine-PL invent- 'Engineers invented (varying new kinds of) hydrogen-power 	ti. (plurality of (sub)kinds) PST ered engines.'
b. <i>Masa-lar</i> devir-di-ler, <i>küfür-ler</i> et-ti-ler. table-PL overturn-PST-3PL swear-PL make-PST-3PL 'They overturned tables and swore multiple times.'	(pluractionality)
(5) Checking of number markers	
a. Number as domain restriction b. Plurality of (sub)kinds	c. Pluractionality PluracP
$\begin{array}{c} \varphi \mathbf{r} \\ DP \\ \varphi \\ [SG / PL] \\ [u-SG / u-PL] \\ \bullet \end{array} \qquad \begin{bmatrix} SG / PL \\ D \\ [u-SG / u-PL] \\ \bullet \end{bmatrix} \qquad \begin{bmatrix} u-SG / u-PL \\ e \\ $	NP V [u-SG / u-PL]

References:

- Butler, L. K. (2011). *The morphosyntax and processing of number marking in Yucatec Maya*. (Doctoral dissertation). University of Arizona, Tucson, AZ.
- Chierchia, G. (1998). Reference to kinds across languages. *Natural Language Semantics*, 6, 339-405.
- Ketrez, N. (2004). -lAr-marked nominals and three types of plurality in Turkish. In J. Cihlar, A. Franklin, D. Kaiser, & I. Kimbara (Ed.), *Proceedings of CLS*, 39 (pp. 176-192). Chicago: University of Chicago Press.
- Öztürk, B. (2005). Case, referentiality and phrase structure. Amsterdam: John Benjamins.
- Ritter, E. (1992). Cross-linguistic evidence for number phrase. *Canadian Journal of Lingustics*, 37, 197-218.
- Sauerland, U. (2003). A new semantics for number. In R. B. Young, & Y. Zhou (Ed.), *Proceedings* of SALT (pp. 258-275). Ithaca, NY: CLC.
- Wiltschko, M. (2008). The syntax of non-inflectional plural marking. *Natural Language & Linguistic Theory*, 26(3), 639-694.