

Semantic number agreement in Balkar

In this paper we study verbal number agreement patterns in Balkar and argue that number agreement can be largely viewed as a semantic phenomenon. Main evidence comes from optionality in subject-verb agreement in clauses with number phrases and quantifier phrases, for which maintaining a purely syntactic approach seems problematic. On the contrary, if verbal number morphology expresses interpretable features, there is a viable analysis that could be embedded into a general theory of feature valuation and interpretation.

Verbal number agreement patterns

At first glance, Balkar displays obligatory subject-verb number agreement. Agreement with plural noun phrases is manifested on the verb by the plural suffix *-lA(r)*, agreement with singular noun phrases has no overt morphological exponent. Unlike many other Turkic languages, Balkar disallows verbs to appear without overt plural morphology when the subject itself is plural (and bears the same suffix *-lA(r)*). This is true for all finite verb forms except for the conditional, where number agreement is optional:

- (1) *zašcyq-la kel-di-*(le).*
 boy-PL come-PST-*(PL)
 ‘(The) boys came.’
- (2) *zašcyq-la kel-se-(le)...*
 boy-PL come-COND-(PL)
 ‘If (the) boys come...’

If we consider Balkar number phrases and quantifier phrases, we will see that the pattern of verbal agreement depends on the morphological number expressed on the restrictor NP. If the restrictor NP of the subject bears plural morphology, the verb will also display plural morphology -- *this is true for subjects with quantifiers ‘all’, ‘many’, ‘few’*:

- (3) *bittew zašcyq-*(la) bir qyz kör-dü-*(le).*
 all boy-*(PL) one girl see-PST-*(PL)
 ‘All (the) boys saw one girl.’
- (4) *köp/az zašcyq-la kel-di-*(le).*
 many/few boy-PL come-PST-*(PL)
 ‘Many/few boys came.’

If the restrictor NP has no overt number marking, then the verb demonstrates overt plural morphology only optionally – this is true for subjects with quantifiers ‘every’, ‘many’, ‘few’, and all number phrases:

- (5) *xar/beš qyz-*(la) qaja-Ra min-de-(le).*
 every/5 girl-*(PL) mountain-DAT climb-PST-(PL)
 ‘Every girl/Five girls climbed the mountain.’
- (6) *köp/az zašcyq kel-di-(le).*
 many/few boy-PL come-PST-(PL)
 ‘Many/few boys came.’

The table below summarizes the data.

Q	restrictor	verbal agreement
‘all’, ‘many’, ‘few’	PL	PL
‘every’, ‘many’, ‘few’, numerals	SG	SG (∅) or PL

Interestingly, when the verb displays plural morphology, the quantifier ‘every’ remains distributive (and therefore, is incompatible with collective predicates, as in (7)), which is a less expected pattern from the typological viewpoint.

- (7) *#xar kiše üj-nü quršala-dy-(la).*
 every man house-ACC surround-PST-(PL)
 ‘Every man surrounded the house / *All men surrounded the house.’

Even more interestingly, the verb may display plural morphology even with numeral phrases with ‘one’, but this requires there to be multiple participants:

- (8) a. xar kün-den maña bir qyz kel-e e-di.
 every day-LOC me.DAT one girl come-CONV COP-PST
 ‘Every day one girl came to me (the same girl every day or different girls).’
- b. xar kün-den maña bir qyz kel-e e-di-le.
 every day-LOC me.DAT one girl come-CONV COP-PST-PL
 ‘Every day one girl came to me (there have to be at least two different girls overall).’

Number phrases with ‘one’ can be NPIs in Balkar, and with such NPIs in the subject position, the verb optionally may bear plural morphology:

- (9) bir adam da kel-me-di-(le).
 one man PTCL come-NEG-PST-(PL)
 ‘Nobody came.’

Towards an analysis

If one tries to maintain the view that morphological number on verbs is always a reflex of syntactic agreement, one will have to assume that quantifier phrases and numeral phrases in (8) optionally have a plural number feature which does not come from the restrictor NP. From a semantic viewpoint, this would be extremely puzzling, especially for phrases with the quantifier ‘every’ and with the numeral ‘one’.

On the other hand, if we take that what looks like verbal number agreement morphology could be an exponent of an interpretable number feature on some functional head (say, T), the observed patterns could be explained in the following way.

Let us say that the number feature of the subject noun phrases in question is determined by the number feature of the restrictor, and the T head may undergo syntactic agreement with the subject. In that case, the morphology displayed by T would be plural when agreeing with those phrases whose nouns are plural and singular when agreeing with those phrases whose nouns are singular. In addition to that there should be an option for T to surface with semantically interpretable number features signaling the overall plurality of the participants in question (we leave the questions of interpretations largely open here, but see Dowty and Jacobson 1989 for a sketch of a theory of how semantic agreement could be interpreted). It is expected that the overall plurality requirement of the interpretable plural feature is lifted in downward-entailing environments (9) and it is predicted that Balkar singular group nouns should be able to surface with apparent plural verbal agreement, which appears to be true:

- (10) bu qawum futbol-nu ige ojnaj-dy-(la)
 this team football-ACC well play-3.PRES-(PL)
 ‘This team plays football well.’

Discussion

The proposed account can be embedded under a general theory of feature valuation that should allow for certain heads to enter the derivation with unvalued features that may be valued either *internally*, via syntactic agreement (in this case, the feature on the head would be semantically uninterpretable), or *externally* (“from the context”), via insertion of an appropriate feature value that doesn’t have to match any other in the structure (now the feature would be semantically interpretable). This possibility is essentially assumed, for example, for the heads of conjoined noun phrases and their person features in Podobryaev 2014. If one allows for T in Balkar to have its number features valued externally or internally, the patterns of optional agreement would be explained: in the cases of optionality, the source of the singular is internal (syntactic agreement), while the source of the plural is external (semantic agreement).

References

- Dowty, D. and P. Jacobson (1988) “Agreement as a Semantic Phenomenon”. In *ESCOL 5*, 95–108.
 Podobryaev, A. (2014) *Persons, imposters, and monsters*. MIT doctoral dissertation.