

## Towards a unified analysis of correlatives and indefinites in Balkar

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**Overview.** In Balkar the morphosyntax of correlative clauses and indefinite pronouns is very similar: they both consist of three elements: (i) an interrogative pronoun, (ii) a verb marked by the conditional suffix *-sa*, and (iii) the particle *da* ‘even’. However, there are certain syntactic and semantic differences between them. Maintaining one core meaning for these two constructions, we propose that the observed semantic differences come from external factors.

**Data.** Correlatives in Balkar exhibit all the properties of regular correlatives: (i) they must occupy the left peripheral position; (ii) both the nominal head of the relative and the correlate can be spelled out; (iii) there is a demonstrative requirement on the correlate; (iv) they have maximizing semantics. An example of a correlative construction is presented in (1).

- (1) fatima kim-ni süj-e e-se da (ol) qonaq-ka kel-liq-di.  
Fatima who-acc love-ipfv be-cond even (s)he guest-dat come-fut-3sg  
'Whoever Fatima likes will come to visit.'

Note, that in (1) the correlate in the main clause can be optionally omitted. We assume that even in the sentences with no overt correlate the correlative clause is an adjunct, rather than a free relative in an argument position (see also Iatridou 2013 for the similar proposal for Turkish correlatives). One argument in favor of this is the absence of case-matching effects in (1).

Balkar also possesses a series of indefinite pronouns consisting of three elements: (i) an interrogative pronoun, (ii) the copula *e* ‘be’ marked by the conditional suffix *-sa*, and (iii) the particle *da* ‘even’. All of them are obligatory and their order is fixed:

- (2) kim e-se da kel-di  
who be-cond even come-pst  
'Some or other person came.'

As the translation indicates, the pronoun gives rise to the inference that the speaker is ignorant about the identity of the individual. Crucially, this inference is obligatory — the speaker cannot follow-up stating that she is aware of the identity of the referent, (3).

- (3) kim e-se da kel-di. #men bil-e-me Alim bol-kan-in.  
who be-cond even come-pst I know-ipfv-1sg Alim be-pfct-acc.3sg  
'Some or other person came. #I know that it was Alim.'

Indefinites that signal a speaker’s lack of knowledge are called *epistemic indefinites*. Building on the data presented above, we conclude that Balkar indefinite pronouns belong to this class of items.

Despite similar morphosyntactic make-up, there are certain differences between correlative clauses and indefinite pronouns. First, *wh*-words in indefinite pronouns can bear case marking assigned by the matrix verb. This is not possible in correlative constructions.

- (4) alim **ne-ni** e-se da (\*a-ni) sat-ip al-di.  
Alim **what-acc** be-cond even (s)he-acc sell-conv take-pst  
1. 'Alim bought some or other thing.' 2. \*'Alim bought whatever it is.'

We take this fact as an indication that indefinite pronouns themselves occupy an argument position, while in the case of correlatives it is their (possibly null) correlate that does so.

Second, they also differ semantically. For example, while both the correlative in (5a) and the pronoun in (5b) convey the speaker’s ignorance about the identity of the individual the speaker saw, the former is interpreted definitely (as a consequence it cannot be used out-of-the-blue), while the latter receives an indefinite interpretation and is used in novel discourse contexts.

- (5)a. kim e-se da (ol) kér-dü-m b. kim-ni e-se da kér-dü-m  
who be-cond even (s)he see-pst-1sg who-acc be-cond even see-pst-1sg  
'I saw whoever it was.' 'I saw some or other person.'

The main challenge is to explain how superficially identical constructions can give rise to different meanings. We will argue that this results from the syntactic environment in which they are placed and the semantic contribution of operators with which they are combined.

**Discussion.** Building on the analysis of unconditionals in English by Rawlins (2013), Demirok (2017) provides a semantics for what Iatridou (2013) identifies as correlatives in Turkish. His approach includes the following crucial components. First, unlike Dayal (1995) he treats *wh*-pronouns not as relative operators but as alternative denoting expressions in the sense of Hamblin (1973). Second, the maximizing semantics observed in correlatives comes not from the correlative clause itself but from the correlate being an E-type pronoun and thus picking up the maximal individual in the context. We will adhere to the latter view. However, we will not adopt the former assumption. Just like Turkish, Balkar is a *wh-in-situ* language, and *wh*-words do not undergo overt or covert movement, which is evident from their island insensitivity. However, unlike in Turkish, *wh*-words in Balkar are not sensitive to intervention effects. If they denoted alternatives, we would expect them to do so. Moreover, this analysis cannot be extended to Balkar indefinites; namely, there is no possibility for them to denote propositional-type objects because it would result in a type-mismatch when they are combined with the verb. Although here we do not provide a compositional treatment of how the components of the *kim ese da* clause from (5) are put together, we assume that the whole complex denotes an intensionalized property in the spirit of Giannakidou & Cheng (2006) (ignoring a non-at-issue contribution of *da* ‘even’):  $\llbracket \text{kim ese da} \rrbracket = \lambda w. \lambda x. x \text{ is human in } w$ .

What happens after the clause is merged? First, let’s consider correlative in (5a). Here the composition of the sentence is similar to the one suggested in Demirok (2017). The correlative clause is merged as a TP adjunct. The matrix clause obligatory includes an E-type pronoun, which under the dynamic approach denotes a variable (Heim 1990). E-type pronoun is also the element that brings in the maximizing semantics:  $\llbracket \text{ol} \rrbracket = \iota(\lambda w. \lambda x. x \text{ is human in } w) = \text{the maximal individual that is human in } w$ . Thus, the E-type becomes the source of the definiteness of the correlative clause once merged.

Now let’s turn to (5b). An obvious possibility that comes to mind is the mechanism used to derive free relatives, namely, a covert iota operator ( $\iota$ ) shifting a property to a maximal individual (Jacobson 1995). The problem is that *kim ese da* clauses in argument positions (unlike, e.g., English *wh*-ever free relatives) are not interpreted definitely (or universally). Another possible operation is existential closure ( $\exists$ ) that applies to a set and existentially closes it (Partee 1987). In English this operation is available only in a certain kind of environments when iota is blocked, e.g., where there can be no maximal entity in the denotation of CP (for discussion see Caponigro (2004)). We propose that in Balkar this operation is more freely available. If, as we have assumed, the semantics of maximalization comes from the correlate, then what  $\exists$  competes with is not  $\iota$  (like in English) but the correlate. As a consequence, when the correlate is not present, we expect  $\exists$  to be available because there is no stronger item that would block it. This is exactly what happens in configurations like (5b), in which the clause itself occupies the argument position of the verb. After the application of  $\exists$ , *kim ese da* denotes an intensional generalized quantifier with a dependent world-variable that must be bound by some operator (Giannakidou & Cheng 2006). Due to it being a generalized quantifier, it QRs out of VP where its world argument is bound by a covert doxastic operator attached on top of the clause (see, e.g., Meyer 2013). This gives rise to the epistemic ignorance effect and correctly predicts that Balkar indefinite pronouns obligatorily take scope above sentential negation, as well as are never bound by low level operators (e.g., root modals).

**Conclusion and open questions.** In this paper we argue that the differences between correlatives and epistemic indefinites in Balkar comes from the availability of operators that close off the variable in the clause denotation. The discussion adds to our understanding of possible connections between correlatives and indefinites and brings in new typological data. Here we do not consider the denotation of the particle *da*. One possible way of accounting for the contribution of *even*-type particles in similar environments has recently been proposed by Balusu (2019) on the basis of the data of Dravidian languages. Whether this approach can be extended to Balkar is left for future research.

**Selected references.** **Balusu R. (2019)** Unifying NPIs, FCIs, and Unconditionals in Dravidian. Poster presented at NELS50. **Caponigro I. (2004)**. The semantic contributions of wh-words and type shifts: Evidence from free

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