

Free Relatives and Correlatives in Wh-in-situ

Ömer Demirok, MIT

Problem. What Cecchetto and Donati (2015) call *the labeling ambiguity* - exemplified by the paradigm in (1) - is precluded in many *wh-in-situ* languages. To illustrate, the *wh*-structures that receive the indirect question interpretation in Turkish (2a) and in Laz (3a) fail to function as *wh*-FRs. Both languages employ a gap in the relativization site (2b) and (3b). Interestingly, however, they exhibit *wh*-correlatives as shown in (4). (See Iatridou (2013) for the discussion on *wh*-correlatives in Turkish.)

- (1) I know/ate [*what he cooked*]. (indirect question/free relative)
- (2) a. John [Mary-nin **ne** pişir-diğ-in-i] bil-iyor
 John Mary-GEN what cook-NOML-3.SG.POS-ACC know-IMPF
 “John knows what Mary cooked.”
- b. John [Mary-nin **(*ne)** pişir-diğ-in-i] ye-di
 John Mary-GEN what cook-NOML-3.SG.POS-ACC eat-PST
 “John ate what Mary cooked.” (Turkish)
- (3) a. [ham **mi-k** na jk’omu] mişk’un
 this who-ERG COMP ate I.know
 “I know who ate this.”
- b. [ham **(*mi-k)** na jk’omu]-s motzondu
 this who-ERG COMP ate -DAT liked
 “Who(ever) ate this liked it.” (Laz)
- (4) a. [Mary ***(ne)** pişir-se] John on-u yer
 Mary what cook-CORR John that-ACC will.eat
 “John will eat whatever Mary cooks.” (Turkish)
- b. [ham ***(mi-k)** na jk’omu] himu-s motzondu
 this who-ERG COMP ate that-DAT liked
 “Whoever ate this liked it.” (Laz)

How can we make sense of the distribution in (1)-(4)? C&D (2015) conjecture that the absence of *wh*-FRs in *wh-in-situ* is predicted under their proposal whereby FRs are derived within the “move & project” approach. However, Tsez, as a *wh-in-situ* language, exhibits argumental FRs (5) (Polinsky, 2015).

- (5) hül babi-y-ä febi zek'-a-zor magalu tetl
 yesterday father-OS-ERG who.ABS hit-PST.WIT.INTER-ATTR.OBL-LAT bread.ABS give.IMPER
 “Give the bread to whoever Father beat yesterday!” (Polinsky, 2015, ex. 131 p. 291)

Furthermore, it is not immediately clear under C&D (2015) why *wh*-correlatives are available in Laz and Turkish while *wh*-FRs are not. This becomes a problem particularly under the well-acknowledged view that the correlative clause involves relativization and is an adjunct FR (Izvorski, 1996 a.o) that is followed by a demonstrative proform in an argument/case position. Hence, we need to answer these two questions:

- i. What is it that allows a *wh-in-situ* language to have *wh*-correlatives but not *wh*-FRs?
- ii. How can Tsez, as a *wh-in-situ* language, have argumental *wh*-FRs?

Proposal. There is a typological bifurcation in the *wh*-syntax of languages: Type-1: *wh*-words denote predicates (e.g. [[what]]= [λx. x is inanimate]). They move (possibly “covertly”) [resulting in predicate abstraction] and generate a predicate base. (e.g. [[what λ₁ John ate t₁]] = [λx. x is inanimate and John ate x]). This derived predicate can combine with a Question operator yielding an interrogative structure (i), combine with *iota* yielding a FR (a definite description) (ii) (Caponigro, 2003), or combine with both Q and *ι* yielding a question-like FR (i.e. *wh*-ever FRs) (Hirsch, 2015). **i.** Q (what λ₁ John ate t₁) = {λw. John ate pasta in w, λw. John ate pizza in w, ...}

- ii.** *ι* (what λ₁ John ate t₁) = *ι*x. John ate x

Type-2: *wh*-words denote alternatives (e.g. [[who]]= {x | x is human}) and compose with the rest of the structure via Pointwise Functional Application (Hamblin 1973), i.e. with no resort to movement. (e.g. PFA([[who]] [[came]]) = {λw. John came in w, Susan came in w, ...})

In the proposed typology, a Type-2 language will never have *wh*-FRs as its genuinely in-situ *wh*-syntax will never yield a predicate base that the FR can build on. A Type-1 language, however, can freely build *wh*-questions and *wh*-FRs within the same *wh*-syntax that relies on predicate abstraction.

Predictions. (i) Our proposal promises to explain the asymmetry between Tsez and Turkish/Laz in the availability of *wh*-FRs. In particular, we predict that Turkish/Laz is a genuinely *wh-in-situ* language (hence Type-2) whereas Tsez is a covert *wh*-movement language (hence Type-1). According to the focus-intervention diagnostics in Cable (2010), this is borne out (6). Additional tests such as ‘sensitivity to islands’ corroborate this asymmetry.

- (6) a. deber-kin jebi r-eti-x
 2SG.DAT-FOC what.ABS.IV IV-want-PRS
 “What is it that even you want?” (Tsez, Maria Polinsky, pc)
- b. Sen (*bile) ne istiyorsun?
 You even what want.2SG
 “What is it that (*even) you want?” (Turkish)

(ii) Under the standard (relativization) approach to correlatives (e.g. Srivastav (1991) for Hindi), Turkish and Laz *wh*-correlatives still pose a challenge to our proposal. If Turkish/Laz is a Type-2 language, we predict *wh*-relatives to be unavailable and the correlative clause to denote a set of propositions, i.e. a question, not a predicate. There is indeed evidence that correlatives in these languages are question-like and furthermore can be subsumed under conditionals. Under the well-known restrictor analysis of conditionals (Lewis 1975, Kratzer 1981, Heim 1986 a.m.o.), the schematic LF of a conditional statement like “If John comes, Mary will be happy.” will be as in (7), where the conditional antecedent restricts the modal. We propose that Turkish/Laz correlatives as in (4) have the schematic LF in (8).

- (7) [[MODAL [John comes]] Mary will be happy]
 (8) [OP_{ASSERTION} [[MODAL [...correlative clause(=*wh*-question)...]] p]]

The correlative clause denotes a set of propositions, each of which pointwise restricts the modal on a par with a conditional antecedent. The consequent clause *p* in (8) contains an E-type pronoun (spelled out by a demonstrative pronoun). Finally, the OP_{ASSERTION} asserts the conjunction of the propositional alternatives in its complement (Rawlins, 2013, Hirsch 2015), which derives the paraphrase in (9) for (4a).

- (9) [if Mary cooks lasagna, John will eat it] & [if Mary cooks soup, John will eat it] & ...

One piece of evidence for this analysis comes from the systematic ambiguity of correlatives and conditionals in these languages (10). Under the current proposal, when the OP_{ASSERTION} that is present in correlatives is not merged, the *wh*-question reading arises as the propositional alternatives are not captured.

- (10) a. [nereye git-se-k] John bizimle (oraya) gelir (Turkish)
 where go-CORR-1PL John with.us there will.come

matrix question: “Which *x* is such that if we go to *x*, John will come with us there_{*x*}?”

correlative: “[Wherever we go]_{*x*}, John will come with us there_{*x*}.”

- b. [nak vidik’ot] Tanura jk’uni-jk’ala (hik) moxtasert’u (Laz)
 where go.CF.1.PL Tanura our-with there come.FUT.PST

matrix question: “Which place *x* is such that if we went to *x*, Tanura would come with us (there_{*x*})?”

correlative: “[Wherever we went]_{*k*}, Tanura would come with us there_{*k*}.”

(iii) The crucial assumption in this proposal is that there is no variable binding relationship between the demonstrative pronoun and the correlative clause. The co-reference is achieved thanks to the E-type construal for the demonstrative. We observe that the co-reference is lost when the demonstrative precedes its understood antecedent, which is a peculiar property of E-type pronouns (11). Parallel facts obtain in English (12). As predicted, the meaning we end up with is an unconditional (Rawlins, 2013).

- (11) a. Mary **onunla** [partiye kim gel-se] konuşur.
 Mary with.DEM party who come-CORR will.talk
 “[Whoever comes to the party]_{*k*}, Mary will talk to them_{*j/*k*}” (Turkish)

- (12) *He beats it if a farmer owns a donkey. (Barker & Shan, 2008, ex. 15b)

Conclusion. The proposed typology accounts for the absence of *wh*-FRs in genuinely *wh-in-situ* languages while predicting covert *wh*-movement languages with *wh*-FRs. Furthermore, it predicts that genuinely *wh-in-situ* languages might have *wh*-correlatives that rely on interrogative structures rather than relativization.

Selected References: Caponigro, I. 2003. *Free Not to Ask: On the Semantics of Free Relatives and Wh-Words Cross-linguistically*, Ph.D. Thesis, UCLA. Cecchetto, C. and C. Donati 2015. (Re)labeling. *Linguistic Inquiry Monographs*. Iatridou, S. 2013. Looking for Free Relatives in Turkish (and the unexpected places this leads to). The Proceedings of WAFL 8. Rawlins, K. 2013. (Un)conditionals. *NLS* 40: 111-178.