Multiple wh-fronting in a typological setting

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Most languages front one wh-phrase or leave them all in situ in multiple questions. There is another pattern, which is not frequent: multiple wh-fronting languages (MWF), which front all wh-phrases.

(1) a. Ko šta kupuje? b. Šta ko kupuje c. *Ko kupuje šta?

who what is-buying 'Who is buying what?' (Serbo-Croatian, SC)

While there have been a number of works on MWF, they have generally focused on examining the structure and the derivation of MWF constructions, and did not attempt to understand what is really behind MWF, why some languages employ this strategy. This paper will address that question, but from a broad typological perspective, in particular, by establishing new correlations between MWF and other phenomena. To that end, 12 MWF languages are identified, SC, Romanian, Polish, Russian, Bulgarian, Macedonian, Slovenian, Ukrainian, Hungarian, Basque, Mohawk, and Latin (Latin is particularly useful, since it can be compared with modern Romance languages).

What is important is the notion of *indeterminates*. In many languages, the same forms that are used for wh-words have a variety of usages, like existentials, universal quantifiers, negative concord/NPI items, free choice, depending on the context in which they occur; they are referred to as indeterminates since their exact quantificational force is not inherently determined; it is determined by the licensing context in which they are found. Cheng (1991) noted Bulgarian, Polish, and Hungarian have indeterminate systems. I show all the MWF languages from above in fact have a productive indeterminate system, which means the indeterminate system is a pre-requisite for MWF. But there is more to it. There are different types of indeterminate systems. I define a particular type, dubbed sub-wh-system: a fully productive system where addition of an inseparable affix to a wh-phrase results in a series of meanings shown in SC (2). There is a morphological subset-superset relation between the wh (i.e. question) usage and other usages (3).

- (2) a. ko 'who' b. iko 'anyone' c. niko 'no one' d. neko 'someone' e. svako 'everyone' f. bilo ko 'whoever'
- (3) sub-wh system: who+X for other pronouns (inseparable, fully productive, order does not matter)

What's a not a sub-wh system is e.g the situation found in Chinese, where the same form can have different functions (e.g. *shenme* can mean 'what', 'something', 'anything'), or the situation in Japanese, where a particle occurs on each function (in some cases inseparable, in same cases separable, note that -ka, which is always separated on the wh-usage in Standard Japanese, need not be separated in Okinawan). English also doesn't have a sub wh-system since the relevant system is not fully productive in English (*some*where, *every*where, *nowhere*, *anywhere* but **some*who/*every*who/*now*ho), in other words, it is lexicalized.

I show that all MWF languages from above have exactly this type of indeterminates, establishing (4).

(4) If a language has multiple wh-fronting, it has a sub wh-system.

Particularly interesting is Romance. Latin was a MWF language (Ledgeway 2012) with a fully productive sub-wh system. The fully productive sub-wh system got lost in all modern Romance languages except one: Romanian, which is the only modern Romance language that still has MWF, a strong confirmation of (4).

This shows sub wh-system is a prerequisite for MWF. The talk will give a deduction of the generalization, the gist of which is the following: ko in (2) is actually not 'who'. The form is a true indeterminate; since it doesn't have an inherent quantificational force, it requires licensing, which also determines its quantificational force. The particles that indeterminates merge with do that. In a sub wh-system, the <u>only</u> usage on which the indeterminate is not merged with a particle is the wh-usage. The suggestion is that this is what requires fronting: the indeterminate is licensed as a wh-phrase by moving to an interrogative projection. The movement thus doesn't occur because of a property of the interrogative head but because of indeterminate licensing—this is why they all need to undergo fronting (see below for an exception).

There is another property that all MWF languages have in common established in the talk: they all either lack articles or have affixal articles (the languages under consideration will be discussed in detail regarding this generalization, including the one where this is less clear, Hungarian (see in this respect Macwhinney 1976)—it will be shown that they all conform to (5)).

(5) MWF languages either lack articles or have affixal articles.

The talk will propose a deduction of (5). In a series of works, based on a number of syntactic and semantic typological generalizations, where languages with and without articles consistently differ regarding a number of phenomena, Bošković argues that languages without articles in fact do not project DP (in other words, there are no null articles in such languages). Talić (2017) argues for a refinement of the NP/DP language distinction; she shows that in many respects languages with affixal articles behave like a separate type, in that they sometimes behave like languages with articles and sometimes like those without articles. I argue for a way of implementing this observation for the affixal article languages that have MWF: there is D in such languages, but there is no DP (see also Oda 2022); the affixal article is base-generated adjoined to N (more precisely, it's host). In a sub wh-system, only on the wh-usage, the indeterminate does not occur with a licensing particle. I argue that in principle, such indeterminates can still be licensed at a distance, with a null Operator in SpecDP that is unselectively bound by interrogative C. However, this is not possible in the relevant MWF languages due to the lack of a DP projection that would be capable of such licensing. The only way to license the indeterminate on the wh-usage is then to front it to an interrogative SpecCP position. The confluence of independent factors, namely the sub wh-system, and a particular status regarding articles, is thus what is behind MWF (MWF languages have a sub wh-system, and either lack articles or have affixal articles, which are the typological findings of this paper).

MWF languages do have certain cases where the wh-phrase itself receives a different interpretation.

(6) a. Ima ko šta da ti proda. b. *Ima ko da ti proda šta. c. *Ima šta ko da ti proda has who what that you sells

'There is someone who can sell you something.' (SC)

Crucially, the relevant elements must front here. The fronting does not occur to the interrogative SpecCP since the relevant clause is simply not interrogative. I argue what is going on here is the following: since *ko* and *šta* are not merged with an indefinite particle, they are licensed as indefinites by moving to an indefinite licensing position. What is relevant here is languages like Kaqchikel, where the same form functions as interrogative or indefinite, and must be fronted on both functions, with the landing site of the interrogative being higher than the indefinite licensing projection (Erlewine 2016). Kaqchikel thus shows there is a pattern where the indefinite meaning of an indeterminate is licensed by movement to a special projection that licenses this meaning. I argue this is precisely what happens in (6) (the relevant forms can also have a universal quantifier interpretation in correlatives, where they also must undergo movement-the movement is not to the interrogative SpecCP since the relevant clauses are not interrogative; note also that movement to the interrogative-licensing projection is not subject to ordering/superiority effects in SC (cf. (1)); the movement in (6) is, which indicates that this is indeed a different kind of movement).

It is, however, well-known that in SC, D-linked wh-phrases do not front:

(7) Ko kupuje koju knjigu? who is-buying which book (SC)

Two issues are relevant; first, *koju* in (5) is not an indeterminate but a wh-form. Second, Bošković (2002) shows MWF is actually movement to a focus projection, this means the relevant licensing takes place in SpecFocP; this by itself is not surprising—focus/interrogativity connection is often noted, it has been argued that in many languages wh-movement actually lands in SpecFocP. What is relevant here is that Bošković shows D-linking is very different from focus. With D-linked wh-phrases the range of felicitous answers is limited by a set of objects familiar to the speaker and the hearer as a result of it being referred to or salient in the context. The range of reference of D-linked wh-phrases is thus discourse given. Due to their discourse giveness, such wh-phrases are not inherently focused hence not subject to focus movement. (One wh-phrase always must front for clausal typing as discussed in Cheng 1991 so when only a D-linked wh-phrase is present it fronts, but Bošković (2002) shows that the landing site is different. Bošković also shows there is no optional wh-movement with D-linked wh-phrases, as it's sometimes assumed; what appears to be optional wh-movement is actually scrambling (whose defining property is optionality). So what is going on is that unlicensed indeterminates, i.e. an indeterminate that does not have a licensing particle attached and does not move to the focus projection, is interpreted by a default rule for unlicensed indeterminates in the relevant languages as a D-linked wh-phrase (the same happens if e.g. *ko* from (2a) does not move).

The paper will also discuss variation in the order of fronted wh-phrases, establishing a principled typological cut between MWF languages that allow free order of fronted wh-phrases and those that don't. In conclusion, the paper aims to contribute to our understanding of MWF through typology, i.e. by investigating correlations between MWF and other phenomena.