

## ***Wh-kin*: multiple *wh* and additivity in Finnish interrogatives and declaratives**

Karoliina Lohiniva  
Université de Genève

In Finnish multiple *wh*-questions with two *wh*-phrases, one *wh*-phrase must be fronted to the CP, and the other must remain in situ. When the *wh*-phrases appear bare, only the structurally higher one can be fronted. However, either *wh*-phrase may move if the additive particle *-kin* (‘also’, ‘too’) is attached to the one staying in situ. This modulation of superiority effects in multiple *wh*-questions is shown in (1).

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| (1) Multiple <i>wh</i> -question (bare- <i>wh</i> )  | Multiple <i>wh-kin</i> -question ( <i>wh-kin</i> )   |
| a. Kuka ost-i mi-tä?<br>who-NOM buy-PAST.3SG what-PAR<br>‘Who bought what?’                                | a’. Kuka ost-i mi-tä-kin?<br>who-NOM buy-PAST.3SG what-PAR.KIN<br>‘Who bought what?’                               |
| b. *Mi-tä <sub>i</sub> kuka os-ti t <sub>i</sub> ?<br>what-PAR who-NOM buy-PAST.3SG<br>‘What did who buy?’ | b’. Mi-tä <sub>i</sub> kuka-kin ost-i t <sub>i</sub> ?<br>what-PAR who-NOM.KIN buy-PAST.3SG<br>‘What did who buy?’ |

Huhmarniemi and Vainikka (2010) follow Hakulinen et al. (2004) in assuming that the *wh-kin* phrase is interpreted as a distributive quantifier that takes scope over the interrogative. The disappearance of superiority effects is due to the requirement that the possible values of the *wh-kin* phrase must be contextually given, which brings *wh-kin* in line with Pesetsky’s D-linking account of superiority in multiple *wh*-questions (1987). Indeed, while a bare-*wh*-question can receive a single-pair answer, a multiple *wh-kin*-question cannot: its multiple-pair answer must map each member of the contextually given *wh-kin* to a possibly different member of the in situ *wh*-phrase. It is also possible to give a functional answer to a *wh-kin* question, in which case the presence of a co-indexed possessive pronoun in addition to the coindexed possessive suffix is either obligatory (2a) or ungrammatical (2b).

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| (2) <i>-kin</i> on object- <i>wh</i>  | <i>-kin</i> on subject- <i>wh</i>  |
| a. Kuka rakasta-a ke-tä-kin <sub>i</sub> ?<br>who-NOM love-PR.3SG who-PAR.KIN<br>‘Who loves whom?’    | b. Ke-tä kuka-kin <sub>i</sub> rakasta-a?<br>who-PAR who-NOM.KIN love-PR.3SG<br>‘Whom does who love?’  |
| i) *(Häne-n <sub>i</sub> ) äiti-nsä <sub>i</sub><br>his/her-GEN mother-NOM.PX/3SG<br>‘His/her mother’ | i) *(Häne-n <sub>i</sub> ) äiti-ä-än <sub>i</sub><br>his/her-GEN mother-PAR.PX/3SG<br>‘His/her mother’ |

Huhmarniemi and Vainikka argue that *wh-kin* must be bound by a c-commanding fronted *wh*-phrase. However, multiple *wh*-phrases (with *-kin* attached to the second phrase) also occur in plain declaratives with no interrogativity, as in (3). In declaratives, both *wh*-phrases stay in situ. (3b), for example, is interpreted as an assertion of there having been multiple talking events between different, unspecified people. Absence of *-kin* leads to ungrammaticality.

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| (3) a. Asu-i-n milloin mi-ssä-kin.<br>live-PAST.1SG when where-INE.KIN<br>‘I lived in different places at different times’ | a’. *Asu-i-n milloin mi-ssä.<br>live-PAST.1SG when where-INE |
| b. Kuka tek-i mi-tä-kin.<br>who-NOM do-PAST.3SG what-PAR.KIN<br>‘Different people did different things’                    | b’. *Kuka tek-i mi-tä.<br>who-NOM do-PAST.3SG what-PAR       |

Moreover, Finnish allows triple *wh(-kin)*-questions where the middle-*wh* may either carry *-kin* or not. When it does, the question is interpreted as a real triple *wh*-question. When it does not,

the possibility of *wh-kin* declaratives makes an answer that only specifies the value of the fronted *wh* acceptable. It is not clear whether (4b) can be interpreted as a triple *wh*-question.

- (4) a. Kuka asu-i mi-ssä-kin milloin-kin?  
who-NOM live-PAST.3SG where-INE-KIN when-KIN  
'Who lived when where?'
- b. Kuka asu-i mi-ssä milloin-kin?  
who-NOM live-PAST.3SG where-INE when-KIN  
'Who lived in different places at different times?'

It may well be that the context-givenness of *wh-kin* accounts for the lack of superiority effect in (1b'). However, if *wh-kin*-questions require that *wh-kin* be bound by a fronted *wh*-phrase, the grammaticality of (3a-b) where no *wh* is fronted is surprising. The grammaticality of *wh*-phrases in declaratives of course in itself raises the question of what the Finnish *wh*-phrases denote, and how they can appear without interrogative clause typing.

In this poster, I explore two possible accounts of the interpretational data. It is assumed in both that *wh*-phrases denote sets of possible referents (Hamblin 1973), and that the host phrase of *-kin* determines the interpretation to some extent.

First, functional analyses of multiple *wh*-questions (Dayal 1996) assume that there is a functional dependency between the subject *wh*-phrase (domain) and the other *wh*-phrase (range). To account for the *wh-kin* data, it could be assumed that the attachment of *-kin* determines the domain of the function, and not subjecthood. Extending the functional analysis to *wh-kin* declaratives means that their meaning is a set of propositions as well.

The second account leans on work in inquisitive semantics (Ciardelli et al. 2012), and classifies *-kin* as a MO particle in the sense of Szabolcsi 2015. In Szabolcsi 2015, MO particles express universal quantification, additivity and conjunction, and require that the immediately larger context is interpreted as the lattice-theoretic meet of the semantic contribution of the particle host and something else. While declaratives with *wh-kin* are admittedly highly unspecific, they might be argued to contain the information that there exists an intersection of sets of worlds in which the actual world is situated. The intersecting sets of worlds are information states where it is known that in each world of the set, one member of *wh-kin* is mapped to some member of the other *wh*. As the same world may map two distinct members of *wh-kin*<sub>1</sub> to the other *wh*, these sets of worlds intersect in many ways. Thus, a *wh-kin* declarative is informative, excluding the possibility that there is only one pairing of values (the single-pair answer), but also inquisitive, requiring that the actual world be situated in one of the possible intersections of the information states without specifying which one. In *wh-kin* questions, then, the existence of a this intersection is presupposed, and the answer provides the pairings of *wh-kin* and the other *wh* that define the information states in the intersection of which the actual world lies.

### Selected references

- Ciardelli, I., Groenendijk, J. and F. Roelofsen. 2012. Inquisitive semantics. NASSLLI 2012 lecture notes. — Dayal, V. 1996. *Locality in Wh Quantification*. Kluwer Academic Publishers, Dordrecht. — Huhmarniemi, S. and A. Vainikka. 2010. Multiple *wh*-questions and syntactic islands in Finnish. Workshop on Finno-Ugric Syntax and Universal Grammar. 11th International Congress for Finno-Ugric Studies, Piliscsaba, Hungary. — Szabolcsi, A. 2015. What do quantifier particles do? *Linguistics and Philosophy* 38: 159-204.