

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

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1.1. Introduction

- Finnish multiple *wh*-questions with two *wh*-phrases are formed by fronting exactly one *wh* to spec,CP and leaving the other in situ (Holmberg 2000)
- Multiple **bare** *wh*-questions show superiority effects
 - (1) a. **Kuka** osti **mitä?** ✓ single pair ✗? multiple pair
who-NOM buy-PAST.3SG what-PAR
“Who bought what?”
 - b. ***Mitä_i** **kuka** osti **t_i?**
what-PAR who-NOM buy-PAST.3SG
“What did who buy?”
- The in situ *wh* may appear with the additive focus particle **-kin**: multiple *wh-kin* questions show no superiority effects
 - (2) a. **Kuka** osti **mitäkin?** ✗ single pair ✓ multiple pair
who-NOM buy-PAST.3SG what-PAR.KIN
“Who bought what?”
 - b. **Mitä_i** **kukakin** osti **t_i?** ✗ single pair ✓ multiple pair
what-PAR who-NOM.KIN buy-PAST.3SG
“What did who buy?”
- Although Finnish does not have *wh*-indefinites, like Mandarin for example (Li 1992), a multiple *wh-kin* can appear in a declarative:
 - (3) Ostin **mitä**(*kin) **milloin**(*kin).
buy-PAST.1SG what-PAR when-KIN
“I bought different things at different times.”
- In both interrogatives and declaratives, *-kin* seems to necessarily appear on the lower/lowest *wh*: *wh-kin* cannot be overtly fronted to spec,CP

1.2. Earlier work

- Huhmarniemi & Vainikka (2011) argue that the in situ *wh* can be licensed through two strategies:
 - **Agree with C** (bare *wh* in (1)): covert movement to C
 - **Binding by c-commanding antecedent *wh*** (*wh-kin* in (2)): no movement
- The *wh*-phrase is assumed to carry an uninterpretable focus feature [uFoc] that C or *-kin* agrees with
- The superiority effect in (1b) is due to the fact that a *wh*-phrase with [uFoc] cannot move over another *wh*-phrase with [uFoc] (cf. Rizzi 1990, Beck 1996)
- The absence of superiority effects in (2b) could also be due to the context-givenness of *wh-kin* (D-linking in Pesetsky 1987)

Problems:

- Holmberg (2014): *-kin* is marked [uFoc] and must c-command a [Foc] element
- If both *wh* and *-kin* carry [uFoc], neither can have its focus feature deleted immediately
- What licenses declarative *wh-kin*?
- The context-givenness requirement of the *wh-kin* is looser than expected: in contexts where only *wh_{matrix}* is context-given, multiple *wh-kin* questions are still judged to be felicitous (caveat: more judgement data should be collected to see if there is a difference between subject and object *wh-kin*)

1.3. Questions

- What does *-kin* do?
- Why does *-kin* appear on the lower/lowest *wh*?
- What are the structural and interpretational relations between *wh-kin* interrogatives and declaratives, and bare *wh* and *wh-kin* interrogatives?

2. Interpreting interrogative *wh-kin*

- **On a functional approach to multiple *wh***, it is assumed that there is a functional dependency between the subject *wh* (domain) and the object *wh* (range), e.g. Chierchia 1991, Dayal 1996:
 - (4) a. **Which philosopher** likes **which linguist**?
 - b. LF: [**which linguist_i** [**which philosopher_j** [**t_i** likes **t_j**]]]
 - c. $\lambda p \exists f_{\langle e,e \rangle} [\text{dom}(f) = \text{phil.} \wedge \text{ran}(f) = \text{ling.} \wedge p = \lambda \lambda p' \exists x [p' = x \text{ likes } f(x)]]$
- The object *wh* leaves a doubly indexed functional trace t_i^a : the i-index is a functional variable identified with a *wh*, and the a-index is an individual variable bound by a c-commanding argument (setting the domain)
- **Hakulinen et al. 2004: *wh-kin* is interpreted as a distributive universal quantifier scoping over *wh_{matrix}***
 - Chierchia 1991: WCO effects rule out constructions where a universal quantifier/object *wh* must cross over a *wh*-trace to bind its a-index
 - (5) a. **Who_i** does [everyone_j love **t_j**] obj-*wh*: ✓ multiple pair ✓ functional
 - b. ***Who_i** [**t_j** loves everyone_j] subj-*wh*: ✗ multiple pair ✗ functional
- However, the on-the-surface equivalent of (5b) allows both a multiple pair answer and a functional answer:
 - (6) a. **Ketä_i** [**kukakin_j** rakastaa **t_j**] obj-*wh*: ✓ multiple pair ✓ functional
 - b. **Kuka** [**t_i** rakastaa **ketäkin_j**] subj-*wh*: ✓ multiple pair ✓? functional
 - c. **Kuka** [**ketäkin_j** [**t_i** rakastaa **t_j**] subj-*wh*: ✓ multiple pair ✓ functional
- Finnish subjects and discourse-old objects occupy Spec,FiniteP (Holmberg & Nikanne 2002). Only SVO shows WCO effects: parallel to languages where scrambling avoids WCO and object *wh* can be the domain (Dayal 1996)
- (7) *His_i mother loves Ville_i
 - a. *[_{FP} [**Hänen äitinsä_j**]_k [_{F°} rakastaa_v [_{VP} **t_i** _{t_v} **Villeä_k**]]] SVO: WCO
 - b. [_{FP} **Villeä_k** [_{F°} rakastaa_v [_{VP} [**hänen äitinsä_j**]_k _{t_v} **t_i**]]] OVS: no WCO
- (8) Who loves every man?
 - a. *[_{CP} **Kuka_i** [_{FP} **t_i** [_{F°} rakastaa_v [_{VP} **t_j** _{t_v} [**jokaista miestä_j**]]]]]? ✗_{mp} ✗_{funct.}
 - b. [_{CP} **Kuka_i** [_{FP} [**jokaista miestä_j**]_k [_{F°} rakastaa_v [_{VP} **t_j** _{t_v} **t_i**]]]]]? ✓_{mp} ✓_{funct.}
- However, it is surprising that (6b), without overt movement, is ✓?functional
- **If *-kin* is a domain setter**, multiple *wh-kin* questions should
 - i) require an exhaustive mapping of the referent set of *wh-kin*: ✓?
 - ii) only allow one-to-one and many-to-one mappings: ✗?
- Any of the *whs* could be the domain (subject, object, adjunct)
- Closer investigation needed: judgement data from 4 informants showed that the constraints on exhaustivity and mapping are looser than expected
- In questions, syntax might explain why *-kin* is on the in situ *wh*: if *-kin* is [Top], it could make its host *wh* unavailable for *wh*-movement (cf. Krifka 1998)

3. Declarative *wh-kin*

- **Do *wh-kin* declaratives contain a free relative clause?**
- *Wh-kin* could be licensed by the *wh* fronted in the FR (Huhmarniemi & Vainikka)
 - However, i) VP-ellipsis is not grammatical in Finnish FRs, ii) the fronted *wh* may not correspond to the verb's selectional requirements, and iii) why-FRs are unacceptable crosslinguistically, including Finnish
 - (10) a. Ostin [_{FR} **mitä_i** [_{Jesse(kin)} *(osti) _{t_i}]]
buy-PAST.1SG what-PAR Jesse-KIN buy-PAST.3SG
“I bought what Jesse did (too).”
 - b. Ostin [_{?P} **milloin_i** [**mitäkin** _{t_i}]]. The structure of ?P is left open
buy-PAST.1SG when what-PAR.KIN
“I bought different things at different times.”
 - c. Ville suuttui [_{?P} **miksi_i** [**milloinkin** _{t_i}]].
Ville-NOM got.mad-PAST.3SG why when-KIN
“Ville got mad for different reasons at different times.”
- The two *whs* might form some kind of (modifying) clause together
 - (11) Muut luopuvat [_{?P} **kuka** **mistäkin syystä**]
others-NOM give.up-PR.3SG who-NOM what-ELA.KIN reason-ELA
“The others give up for different reasons” (http://yle.fi/uutiset/jari_korkki_jaahyvaiset_kusitoipalle/7846271)
- If the declarative *wh-kin* is biclausal, the interrogative *wh-kin* should be too: this would bring the domain-setting *-kin* in line with the observation that in biclausal multiple questions, the in situ *wh* sets the domain (Dayal 1996) (cf. 10c)
 - (12) **Miksi_i** [Ville suuttui [_{?P} **t_i** [**milloinkin** _{t_i}]]]?
why Ville-NOM got.mad-PAST.3SG when.KIN
“Why did Ville get mad each time he got mad?”

4. Summary:

- More work is required to see whether *-kin* really is a domain setter
- Context-givenness alone cannot explain the superiority effects
- A syntactic analysis of declarative *wh-kin* is a prerequisite for a semantic analysis of interrogative *wh-kin*: it is unclear whether multiple bare *wh* and multiple *wh-kin* questions have the same structure
- Do *wh* and *wh-kin* form some kind of a clause? Is there internal movement? What would drive it in declaratives? Why is *-kin* required in these structures?



5. References

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