Coordination of unlikes in multiple questions

I. Introduction. It is well-known that some languages allow the coordination of *wh*-phrases that do not share the same category or even the same function, see Kazenin 2002 and Gribanova 2009 on Russian, Comorovski 1996 and Raţiu 2010 on Romanian, Merchant 2008 on Vlach, Lipták 2001, 2003 on Hungarian, Kliashchuk 2008, Citko & Gracanin-Yuksek 2010 and Tomaszewicz 2011 on a cross-linguistic analysis. Here we concentrate on Hungarian (H) and Romanian (R) multiple questions in which the *wh*-phrases are coordinated by some connective, such as H. *és* 'and' and R. *şi* 'and'.[1]

(1) (H) Ki **és** mikor érkezett?   (R) Cine **şi** când a sosit?
        who and when arrived   who and when has arrived

We build our analysis on a new perspective in the empirical domain and show that the previous accounts have some shortcomings and cannot account for the data adequately. We propose a semantic-based account in terms of *fragments* (cf. Ginzburg & Sag 2000), allowing us to uniformly treat coordinated *wh*-phrases (henceforth, Coord-*wh*) (1) and end-attachment coordinations (henceforth, End-Attach-*wh*), in which one of the *wh*-phrases is 'stranded' at the end of the sentence (2).

(2) (H) Ki érkezett, **és** mikor?   (R) Cine a sosit, **şi** când?
        who arrived and when   who has arrived, and when

II. Data. Coord-*wh* differ from 'paratactic' *wh*-phrases in at least three aspects: (i) semantically, in addition to pair-list readings, they also license single-pair ones; (ii) syntactically, superiority effects are not observed to the same extent as in 'paratactic' *wh*-phrases (at least in Romanian, cf. the contrast between (3) and (4)), and (iii) at prosodic level, the first *wh*-phrase can constitute an independent intonational unit, which is not the case with the initial *wh*-phrase in 'paratactic' structures.

(3) a. Cine ce a spus?   (4) a. Cine **şi** ce a spus?   (Comorovski 1996)
       who what has said   who and what has said
    b. *Ce cine a spus?   b. Ce **şi** cine a spus?
       what who has said   what and who has said

It is generally observed that there is considerable variation and hesitation in the acceptability of multiple questions among the speakers, which makes the analysis particularly difficult. Nevertheless, these differences in acceptability can be accounted for if we take into consideration the syntactic function (i.e. adjunct/argument) of the second *wh*-ph, with respect to the verbal predicate. Thus, the following two groups of data can be identified: those in which the second *wh*-ph is an adjunct (group A, see (5)), and those in which the second *wh*-ph is an argument (group B, see (6)-(7)):

(5) (H) {Mikor | ki} **és** miért ment el?   (R) {Unde | cine} **şi** când va pleca?
        {when | who} and why left.3SG-PRT   {where | who} and when will.3SG go

(6) (H) Hol **és** [mit ettél]?   (R) Unde **şi** [ce ai mâncat]?
        where and what ate.2SG   where and what has.2SG eaten

(7) (H) Ki **és** [mit választott]?   (R) Cine **şi** [ce a cucerit]?
        who and what chose   who and what has conquered

We observe that the most widely used structures in both Coord-*wh* and End-Attach-*wh* belong to the group A. For the other ones (group B), the basic constraint on the acceptability of Coord-*wh* (and also End-Attach-*wh*) is that the base clause (indicated in (6)-(7) by square brackets) containing the verbal predicate and the immediately preceding argument *wh*-ph, has to be well-formed, even in the absence of the other *wh*-ph. This is possible in Hungarian and Romanian, since both are pro-drop languages that may also allow the drop of other arguments. We can thus explain the unacceptability of (8) and (9): verbal predicates that do not allow for 'null' arguments render these examples less acceptable.

(8) (H) ??Mit **és** [ki választott]?   (R) ??Ce **şi** [cine a cucerit]?
        what and who chose   what and who has conquered

(9) (H) ??Hova **és** [ki megy]?   (R) ??Unde **şi** [cine locuieşte]?
        where and who goes   where and who lives

Another constraint regarding the group B is the fact that End-Attach-*wh* is less acceptable if the 'stranded' *wh*-ph is a subject (no cataphoric dependency):

(10) (H) ??Mit mondott **és** ki?   (R) ??Ce a mâncat, **şi** cine?
         what said and who   what has eaten, and who

(11) (H) ??Miért hívott **és** ki?   (R) ??De ce a sunat, **şi** cine?
         why called and who   why has called, and who

Finally, one subtype of the group B, in which both *wh*-phrases are arguments, as in (7), does not allow Coord-*wh* if the verbal predicate involves some 'reversible' (12) or collective (13) semantic relation:

---

[1] Due to the lack of space, we consider here only the coordination of two *wh*-phrases. Nevertheless, the analysis we propose can be extended to the coordination of more than two *wh*-phrases.

(12)	(H)	*Ki **és** kit ütött meg először?	(R)	Cine (***şi**) pe cine a lovit mai întâi?
		who and whom hit PRT first		who (and) whom has hit first
(13)	(H)	*Ki **és** kivel találkozott?	(R)	Cine (***şi**) cu cine s-a întâlnit?
		who and who-with met		who (and) with whom REFL-has met

III. Analysis. Existing accounts of Coord-*wh* pattern into two groups: (i) monoclausal approaches (14a) (Kazenin 2002, Lipták 2001, Skrabalova 2006, Gribanova 2009), and (ii) biclausal approaches (14b) in terms of ellipsis (Bánréti 1992, Giannakidou & Merchant 1998, Camacho 2003, Tomaszewicz 2011), or sharing (Citko & Gracanin-Yuksek 2010, Raţiu 2010).

(14) a. $[_{CP} [_{\&P}$ wh$_1$ **and** wh$_2$] $[_{TP} t_1 ... t_2]]$
      b. $[_{\&P} [_{CP}$ wh$_1$ $[_{TP} t_1 ...]]$ **and** $[$wh$_2$ $[_{TP} ... t_2]]]$

The following evidence from Romanian shows that the structures are not monoclausal: Raţiu 2010 argues that the interrogative particle *oare* can appear only once per clause with 'paratactic' *wh*-phrases (15a), while with Coord-*wh* the particle *oare* can co-occur with each *wh*-ph (15b). The same goes for the Hungarian interrogative particle *vajon*.

(15) (R) a. <u>Oare</u> cine (*<u>oare</u>) ce va spune?   b. <u>Oare</u> cine **şi** (<u>oare</u>) ce va spune?
              PRT who (PRT) what will say   PRT who and (PRT) what will say

In addition, the Romanian conjunction *iar* 'and', specialized as a clausal coordinator, can be used with Coord-*wh* (16). Moreover, Coord-*wh* allow sentence-level adverbials between the *wh*-ph (17), confirming that what are conjoined are indeed clauses.

(16) (R) Vreau să ştiu mai întâi CIne, **iar** apoi CE a făcut.
            want to know first who, and then what has done

(17) (R) Nu văd cum, **şi**, <u>mai important</u>, cine ar putea să-l dea jos pe Băsescu.
            not see how, and, most importantly, who could overthrow Băsescu

In a monoclausal analysis, the common function of the question words, forming the basis of the coordination, is often assumed to be the *focus*. However, non-interrogative foci cannot always be coordinated. The monoclausal analysis is therefore not empirically supported.

(18) (H) *JÁnos és TEGnap ment moziba.   (R) *ION **şi** MÂIne va veni.
            *John and yesterday went to cinema.   Ion and tomorrow will come

On the other hand, the biclausal analysis as commonly assumed is problematic, since the verb supposedly undergoing ellipsis cannot always be reconstructed, either because one of its arguments would be missing (19), or because it would exhibit a different verb form, as in (20) in Hungarian.

(19) (R) Poliţistul satului îi cunoaşte pe toţi; ştie cine (*locuieşte) **şi** unde locuieşte.
            the-policeman of-the-village knows all people; he knows who (lives) and where lives

(20) (H) a. Nem érdekel, hogy mit <u>készítesz</u>   **és** hogyan <u>készíted</u>. (Lipták 2001)
                not interests that what make.2 SG.INDEF and how make.2SG.DEF
           b. Nem érdekel, hogy mit **és** hogyan {<u>készítesz</u> | *<u>készíted</u>}.

We propose instead a biclausal analysis in a WYSIWYG ('what you see is what you get') manner, by analyzing the *wh*$_1$ in Coord-*wh*[2] and the *wh*$_2$ in End-Attach-*wh* as *fragments* attached to some 'complete' clause, approach that can be easily handled in a constraint-based framework, such as HPSG. We adopt the notion of *fragment* from Ginzburg & Sag 2000 who use a syntax-semantics interface and posit a head-only fragment construction to account for short questions and short answers in English, fragments which receive a clausal interpretation without having the internal structure of an ordinary clause. There are two main constraints on the context: one semantic, *i.e.* the presence in the context of a question under discussion, and the other, syntactic, *i.e.* the presence in the context of a salient utterance whose syntactic properties and referential index match that of the *wh*-fragment. The advantage of such analysis is that one can avoid the need of empty elements and dispense with movement and deletion operations. In doing so, the apparent coordination of unlikes is in fact a clausal coordination, in which one of the conjuncts is a fragment. This proposal makes it possible to obtain a unitary analysis for both Coord-*wh* and End-Attach-*wh*.

IV. Selected references. Citko, B. & M. Gracanin-Yuksek 2010. Towards a New Typology of Coordinated Wh-Questions. Ms. ♦ Comorovski, I. 1996. *Interrogative Phrases and the Syntax-Semantics Interface*. Kluwer Academic Publ. ♦ Ginzburg, J. & I.A. Sag 2000. *Interrogative Investigations*. Stanford CSLI Publ. ♦ Giannakidou, A. & J. Merchant 1998. Reverse sluicing in English and Greek. *Linguistic Review* 15,233-256. ♦ Gribanova, V. 2009. Structural adjacency and the typology of interrogative interpretations. *Linguistic Inquiry* 40,133-154. ♦ Kazenin, K. 2002. On coordination of wh-phrases in Russian. Ms. ♦ Kliashchuk, M. 2008. L'interrogation coordonnée dans les langues slaves. In *Proceedings of the 2007 annual conference of the Canadian Linguistic Association*. ♦ Lipták, A. 2003. Conjoined questions in Hungarian. In C. Boeckx & K. Grohmann (eds), *Multiple wh-fronting*. 141-160. John Benjamins. ♦ Merchant, J. 2008. Spurious coordination in Vlach multiple *wh*-fronting. *MALC* Handout. ♦ Raţiu, D. 2010. A multidominance approach to conjoined questions in Romanian. *BWPL* Handout. ♦ Skrabalova, H. 2006. Parataxe apparente et coordination des interrogatifs en tchèque. *Faits de langues* 28,231-242. ♦ Tomaszewicz, B. 2011. Against Spurious Coordination in Multiple Wh-questions. In M.B. Washburn *et al.* (eds), *Proceedings of the 28th West Coast Conference on Formal Linguistics*. 186-195. Cascadilla Proceedings Project.

---

[2] Note that the adjunct *wh*$_2$ in group A can be analyzed either as an integrated adjunct or as an incidental adjunct.