Hungarian *wh-hell* is not polarity sensitive: Evidence from in situ

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Introduction. In this paper, we show that Hungarian 'aggressively non-D-linked' *wh*-phrases (*wh-hell*) (Pesetsky, 1987) robustly reject D-linking, but may appear in-situ in single-fronting multiple-*wh* questions. We argue that *wh-hell*-phrases are not polarity sensitive in Hungarian, and that non-D-linkedness is a necessary and sufficient condition for their acceptability.

English *hell*. In English, aggressively non-D-linked *wh*-phrases, such as *who the hell*, show (i) a syntactic restriction to appearing ex-situ (1a,b), and (ii) a root vs. embedded context asymmetry in terms of interpretation. In root multiple-*wh* questions (MWH), only an echoic single pair (SP) interpretation is available. In embedded questions, both SP and pair list (PL) readings are available (1a,c) (Pesetsky, 1987; Lee, 1994; den Dikken and Giannakidou, 2002):

(1) a. Who the hell loves who? [root ex-situ: SP-echo, *SP, *PL]
b. *Who loves who the hell? [*in-situ]
c. I want to know who the hell loves who. [embedded ex-situ: SP, PL]

Den Dikken and Giannakidou (2002) propose that *wh-hell* is a polarity item licensed by a Q(uestion)-particle. In English root (but not embedded) contexts, the fronted *wh* lands above Q, which rules out an information-seeking question interpretation (1a/1c/2a). The ban on in-situ *wh-hell* is due to an intervention effect: *wh-hell* must be in the immediate scope of Q (1b/2c).

(2) a. **wh* ... Q ... *wh-the hell* vs. Q ... *wh-hell* ... *wh* [root vs. embedded context]
b. *Q ... *wh* ... *wh-the-hell* [*in-situ: intervention]

Hungarian *hell*. Hungarian MWHs involve either multiple or single *wh*-fronting. Multiple-fronting MWHs are always interpreted as PL, and only the lower *wh* may carry *hell* (3) (Surányi, 2002, ex. from den Dikken and Giannakidou, 2002). This is consistent with the non-D-linkedness requirement of *wh-hell*: in multiple-fronting MWHs, the higher *wh* is D-linked. Under den Dikken and Giannakidou's licensing approach, the lack of a root vs. embedded contrast in Hungarian follows if both *wh*s land below Q in (3a). However, this should result in an intervention configuration (cf. (2b)). Thus, (3a) is wrongly predicted to be ungrammatical.

(3) a. *Ki mi a fenét vett?* [*hell* on lower *wh* only: *SP, PL]
who what the hell bought
b. **Ki a fene mit vett?*
who the hell what bought

The distribution of *wh-hell* in single-fronting MWHs and the accompanying interpretative pattern has to our knowledge not been discussed previously for Hungarian. Without *wh-hell*, single-fronting MWHs may be interpreted either as SP or PL (ex. from Surányi, 2006):

(4) *Ki nézett rá kire?* [SP, PL]
who looked on who
'Who looked at who?'

Surprisingly, single-fronting MWHs allow both ex- and in-situ *hell*. Moreover, the placement of *hell* has an effect on the available readings: when *hell* is ex-situ, only a (echoic/non-echoic) SP reading is available (5a), but when *hell* is in-situ, both SP and PL readings are available (5b).

(5) a. *Ki a fene nézett rá kire?* [*hell* ex-situ: SP, *PL]
who the hell looked on who
b. *Ki nézett rá ki a fenere?* [*hell* in-situ: SP, PL]
who looked on who the hell

Assumptions. We adopt a Q-particle syntax-semantics for questions (esp. Kotek, 2014; Cable, 2010). Syntactically, Qs merge with *wh*-DPs, and may project a QP. Agreement with a left-peripheral head H° results in the movement of Q (no projection) or QP (projection) to SpecHP. At LF, Q adjoins to the clausal spine to be interpreted. Semantically, Q replaces the undefined o(rdinary)-semantic value of its argument with its f(ocus)-semantic value (and its f-value with the singleton set of the new o-value) (Beck, 2006; Kotek, 2014). A one-Q question denotes a set of propositions (i.e. $\langle st, t\rangle$); a two-Qs question denotes a family of questions (i.e. $\langle\langle st, t\rangle t\rangle$).

Questions without *wh-hell*. We assume that Hungarian Foc° carries [uF(ocus)] and/or [uQ] (cf. Surányi, 2002, 2006). In single-*wh* questions, only [uF] is present. Q does not project, and [iF] of the *wh* percolates to DP. After Agreeing with Foc°, the $DP_{[iF]}$ moves to SpecFocP.

(6) $[_{DP_{[iF]}}$ $Q_{[iQ]}$ $[_{DP_{[iF]}}$ $wh_{[iF]}$]]$_i$ ... $Foc^{\circ}_{[\not{uF}]}$ ... t_i

In multiple-fronting MWHs, Foc° carries [uF,uQ]. Foc° cannot Agree with [iQ] embedded within the $DP_{[iF]}$ (by featural Relativized Minimality, Rizzi, 2010). Instead, Foc° Agrees with another (projecting) Q, resulting in the movement of that QP to SpecFocP, above the [iF]-goal. Only a PL reading is available; this follows from the "sandwiched" configuration of *wh*s and Q-particles, where the higher *wh* is the 'sorting key' in the family of questions (see Kotek, 2014 for details).

(7) $[_{QP}$ $Q_{[iQ]}$ $[_{DP}$ *wh*]]$_j$ $[_{DP_{[iF]}}$ $Q_{[iQ]}$ $[_{DP_{[iF]}}$ $wh_{[iF]}$]]$_i$ ... $Foc^{\circ}_{[\not{uF},\not{uQ}]}$ ... t_i ... t_j [PL]

In single-fronting MWHs, we propose that (i) PL-readings involve [uF]-Foc° and a non-projecting Q, while (ii) SP-readings involve [uF,uQ]-Foc° and a non-projecting Q. In both cases, only $DP_{[iF]}$ moves to SpecFocP. Depending on the features on Foc°, (i) Q stays low and is interpreted at LF below the fronted *wh*, or (ii) Q moves to SpecFocP (resulting in a denotation that is a family of a *single* question, whence the SP-reading; see Kotek, 2014 for details).

(8) a. $[_{DP_{[iF]}}$ $Q_{[iQ]}$ $[_{DP_{[iF]}}$ $wh_{[iF]}$]]$_i$ ... $Foc^{\circ}_{[\not{uF}]}$ ... $Q_{[iQ]}$ $_j$ ... t_i ... [t_j [*wh*]] [PL]

b. [$Q_{[iQ]}$ $_j$ $[_{DP_{[iF]}}$ $Q_{[iQ]}$ $[_{DP_{[iF]}}$ $wh_{[iF]}$]]$_i$ ... $Foc^{\circ}_{[\not{uF},\not{uQ}]}$ ... t_i ... [t_j [*wh*]] [SP]

Explaining (5). A PL reading of (5a) would require *wh-hell* to be the D-linked 'sorting key' (8a/9a). This is not allowed given the inherent anti-D-linkedness of *wh-hell*. The SP reading of (5a) does not involve such a configuration, and is thus acceptable (8b/9b).

(9) a. *Q ... *wh-hell* ... Q ... *wh* [*hell* ex-situ: *PL]

b. Q ... Q ... *wh-hell* .... *wh* [*hell* ex-situ: SP]

The possibility of in-situ *wh-hell* (5b) follows if only non-D-linkedness matters. A PL reading is fine, as *wh-hell* is not the highest *wh* (8a/10a) (cf. also (3a/7)). The availability of an SP reading shows that no licensing-intervention effects arise with the in-situ *wh-hell* (8b/10b) (cf. (2b)).

(10) a. Q ... *wh* ... Q ... *wh-hell* [*hell* in-situ: PL]

b. Q ... Q ... *wh* .... *wh-hell* [*hell* in-situ: SP]

Note that under the Q-approach we adopt, Pesetsky's (1987) idea that *wh-hell* always move to CP overtly or covertly would mean that Q on *wh-hell* projects in (5b). With [uF,uQ]-Foc°, QP would covertly move above the overtly fronted $DP_{[iF]}$ (cf. (7)). But then, an SP-reading of (5b) would be wrongly predicted to be out, as the end result is an illicit PL-"sandwich", as in (9a).

Conclusion. Unlike e.g. its English cousin, Hungarian *wh-hell* simply requires non-D-linkedness, and in-situ *wh-hell* is exceptionally acceptable (5b). This contribution thus adds to existing literature on cross-linguistic variability within *wh-hell* (Huang and Ochi, 2004; Polinsky, 2007).

Selected ref. • den Dikken and Giannakidou (2002) From Hell to Polarity: "Aggressively Non-D-Linked" Wh-Phrases as Polarity Items. LI • Huang and Ochi (2004) Syntax of the Hell: Two Types of Dependencies. NELS 34 • Kotek. (2014) *Composing Questions*. MIT PhD thesis • Pesetsky (1987) Wh-in-situ: Movement and unselective binding. In *The representation of (in)definiteness*. MIT press • Polinsky (2007) What on earth: Non-referential interrogatives. In *The Grammar-Pragmatics Interface*. John Benjamins • Surányi (2002) *Multiple Operator Movements in Hungarian*. U of Utrecht PhD thesis • Surányi (2006) Mechanisms of wh-saturation and interpretation in multiple wh-movement. In *Wh-movement. Moving on*. MIT press