

Another Look at Multiple Wh-Questions in Czech*

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In the substantial literature on multiple wh-movement in Slavic, there is agreement that the initial wh-expression in what Rudin 1988 calls –Multiply Filled Specifier languages ([-MFS]) (Czech, Polish, Serbo-Croatian) appears at the left edge of the clause. The exact position of lower wh-phrases, however, has been the subject of debate. Rudin 1988 and Richards 2001 assume that these wh-XP's adjoin to IP. Stjepanović 1998, on the other hand, provides evidence from adverb placement that they adjoin lower in Serbo-Croatian (see also Bošković 1997, 2002). Czech is an interesting case study for this question due to specific ordering restrictions on elements in the left periphery. Syntactically placed second-position clitics, for instance, allow the structural position of non-initial wh-expressions to be probed with rigor.

Rather than assuming, as in Rudin 1988 for [-MFS] languages, that non-initial wh-expressions adjoin to the highest inflectional projection, I provide evidence that non-initial wh-phrases, instead, adjoin lower in the clause, to the highest verbal projection.¹ Certain predictions follow from this analysis. One such prediction is that scrambled non-wh XP's in the Czech middlefield should be able to intermingle with wh-phrases. This is what is found, see (1).

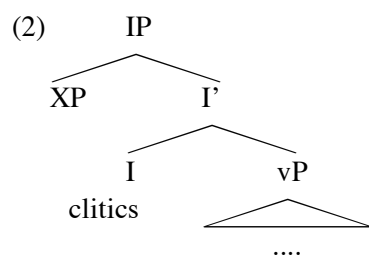
- (1) Kde jsi (včera večer) koho (včera večer) komu
where AUX.2SG.CL last night who_{ACC} last night who_{DAT}
představila?
introduced
'Where did you introduce who to whom last night?'
Lit: 'Where did (last night) who (last night) whom introduce?'

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¹ For an overview of Czech wh-movement see Toman 1981 and Koktová 1999. Meyer 2003 considers the interpretation of multiple wh-questions in Czech.

1 Czech Clause Structure

Two functional heads, I^0 and v^0 , provide anchoring positions which allow us to identify the structural position of XP's within the clause. Following the literature on Czech, I assume that second position clitics are syntactically positioned in I^0 (see Fried 1994, Veselovská 1995, Lenertová 2001). These elements delineate a unique left peripheral A-bar position, [Spec, IP].²



It is ungrammatical for more than one XP to precede the clitic cluster in assertions, see (3).³

- (3) *Honzovi knížku jsem dala.
Honza book AUX.ISG.CL gave
Intended: 'I gave Honza a book.'

In addition to a restriction on the number of pre-clitic XP's, there is also a restriction on their discourse interpretations. [Spec, IP] can be filled by an XP with one of the following discourse interpretations: focus, contrastive topic, or continuing topic. In (4), a contrastive topic fills [Spec, IP] and is associated with a rising pitch contour (for left peripheral XP's with other discourse functions, see Sturgeon 2006).⁴

² I assume that assertions in Czech lack a CP shell (see Lenertová 2001 for another approach to the Czech left periphery).

³ Abbreviations: *C* (complementizer), *INF* (infinitive), *COND* (conditional), *AUX* (auxiliary), *CL* (clitic), *REFL* (reflexive), *FEM* (feminine), *MASC* (masculine), *NEUT* (neuter), *SG* (singular), *PL* (plural), *ACC* (accusative), *DAT* (dative).

⁴ Due to space limitations, it is not possible to explain in detail what is meant by the term 'contrastive topic'. I assume the formal pragmatics of contrastive topic presented in Büring 2003 and apply his analysis to Czech in Sturgeon 2006 (for seminal work on contrastive topic in Czech see Hajičová et al. 2003, Veselá et al. 2003, Hajičová and Sgall 2004).

- (4) a. Co jsi koupila synům k svátku?
what AUX.ISG.CL bought sons towards name-day
 ‘What did you buy your sons for their name days?’
- b. Honzovi_{CT} jsem koupila autíčko a Petrovi_{CT} knížku.
Honza AUX.ISG.CL bought car and Petr book
 ‘Honza_{CT} I bought a car and Petr_{CT} a book.’

Additional evidence that contrastive topics appear in [Spec, IP] comes from their position immediately following the complementizer in embedded clauses, (5).

- (5) Myslím si, že Honzovi_{CT} koupím autíčko a Petrovi_{CT} knížku.
think REFL-CL C Honza buy car and Petr book
 ‘I think I will buy Honza_{CT} a car and Petr_{CT} a book.’

The position of the left peripheral contrastive topic plays an important role in section 3 in determining the position of non-initial wh-expressions.

1.1 The position of the verb

I follow Veselovská 1995 in assuming that the lexical verb remains low in the syntax, raising from V⁰ to v⁰, but no higher. One piece of evidence supporting this proposal comes from the fact that VP adverbs must precede the lexical verb, (6) (see Sturgeon 2006 for additional evidence from VP Ellipsis).

- (6) Honza často líbá (*často) Marii.
Honza often kisses often Marie
 ‘Honza often kisses Marie.’ (Veselovská 1995: 83, (7))

This behavior of VP adverbs is in line with the assumption that VP adverbs obligatorily adjoin to the functional shell dominating the VP (vP).

Modal verbs such as *moct* (‘can_{INF}’), *muset* (‘must_{INF}’), and the future form of *být* (‘be_{INF}’) behave differently than lexical verbs. VP adverbs can both precede and follow these elements, see (7).

- (7) Zeměměřič (často) bude (často) zpracovávat zakázky v různých lokalitách.
land-surveyor often will often work_{INF} orders in various locations
 ‘Land-surveyors will often work on jobs at various locations.’
 (www.gepro.cz/new/clanky/atlas_.htm)

This suggests that modals appear in a higher projection than do lexical verbs. I assume that modals are base-generated in v^0 and select for infinitival vP's. The position of VP adverb placement in (7) is consistent with an analysis that, like lexical verbs, Czech modals do not raise to I^0 , but remain within the vP domain. The post-modal position of the adverb, *často* ('often'), though not the preverbal position, is also consistent with an analysis in which modals can optionally raise to I^0 . As it is not crucial to my analysis, I remain agnostic about the position of modals when the position of VP adverbs does not require that they be positioned in v^0 .⁵

1.2 The Czech Middlefield

I define the syntactic domain between the inflectional head, I^0 , and the verbal head, v^0 , as the Czech 'middlefield'. Within this domain, any number of scrambled XP's appear in any order, (8).

- (8) a. Já bych prádlo z okna nikdy nepověsil.
I COND.CL laundry from window never NEG-hung
 ‘I would never hang my laundry from the window.’
 (www.okoun.cz/boards/nikdy_bych...)

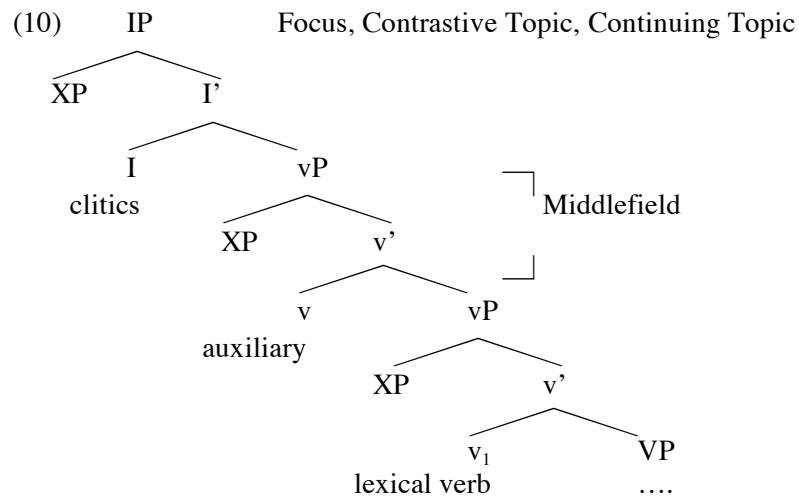
⁵ There are conditions under which both lexical verbs and modals do raise to I^0 . When no XP appears in [Spec, IP], I follow Alexiadou and Anagnostopoulou 1998 in suggesting that the highest verbal element (lexical verb or modal) raises to I^0 to satisfy the EPP on that head.

- b. Já jsem včera večer od Matyáška zase dostala
I AUX.ISG.CL yesterday night from Matyášek again got
 takovou nakládačku...
such kick
 ‘Again last night I got such a kick from Matyášek...’
 (www.emimino.cz/modules.php?name=News&file=article&sid=4400)

Due to the lack of ordering restrictions on these scrambled XP’s, I assume that they are adjuncts and not specifiers of vP projections. As expected for vP adjuncts, middlefield XP’s can both precede and follow auxiliary verbs, (9).

- (9) Marie (za to) bude (za to) platit.
Marie after it will after it pay.INF
 ‘Marie will pay for it.’

In (10), a schematic tree of the Czech clausal structure is provided.



The scrambling evidenced in the Czech middlefield is similar to what has been described as ‘short-distance’ A-scrambling by Mahajan 1990 for Hindi (for Japanese see Nemoto 1999, Miyagawa 2005, among others). Certain characteristics of this type of scrambling are suggestive of A-movement. For instance, new binding relationships can be established among scrambled XP’s. Scrambling to the Czech middlefield amnesties WCO violations, (11).

- (11) Včera každého kluka₁ jeho₁ matka napomenula.
yesterday every boy his mother scolded
 'Yesterday every₁ boy was scolded by his₁ mother.'
 Lit: 'Yesterday every boy₁ his₁ mother scolded.'

I assume that movement to the middlefield is A-scrambling, but I remain agnostic on the exact mechanism of the movement (see Miyagawa 2005 for an EPP-style analysis).⁶

2 The Syntax of Wh-Movement in Czech

Like scrambled XP's in the middlefield, I assume that wh-phrases also undergo A-scrambling and adjoin to vP (for a similar analysis, see Richards 2001 for Serbo-Croatian). Evidence that this is the correct analysis comes from the fact that, like scrambling to the middlefield, there are no WCO effects when wh-phrases are fronted, see (12).

- (12) Kde kterého₁ chlapce jeho₁ matka vyzvedla?
where which boy his mother picked-up
 'Where was which₁ boy picked up by his₁ mother?'
 Lit: 'Where which₁ boy his₁ mother picked up?'

I assume that all wh-expressions undergo A-scrambling to the vP domain and this movement operation amnesties WCO effects. The highest wh-expression in the middlefield then undergoes an additional movement to [Spec, CP] to satisfy the featural requirements of both the wh-expression and C⁰. Other researchers (such as Bošković 1997, 2002; Stjepanović 1998) suggest that, in short-distance questions, initial wh-phrases do not undergo wh-movement to [Spec, CP] but rather, front due to focus-related movement to a position lower than [Spec, CP]. For Czech, I will be assuming that the initial wh-expression does undergo wh-movement to [Spec, CP].

The analysis of Czech multiple wh-movement being developed here is compatible with Rudin's 1998 categorization of Czech as a –Multiply Filled Specifier language. Rudin hypothesizes that multiple wh-fronting languages fall into two categories: (+Multiply Filled Specifier, [+MFS]) and (–Multiply Filled Specifier, [–MFS]). Languages such as Bulgarian

⁶ An anonymous reviewer pointed out that WCO can be an unreliable test for A-movement. Further research on this topic, using tests such as anaphor binding, is merited.

and Romanian allow multiple movement to [Spec, CP] ([+MFS]), while [-MFS] languages, such as Czech and Serbo-Croatian, restrict movement to [Spec, CP] to one wh-expression and adjoin other wh-phrases to a lower projection.

Czech exhibits two key characteristics of [-MFS] languages: wh-island effects and a lack of Superiority effects. The prediction is that [+MFS] languages should not exhibit wh-island effects since there are multiple specifier positions of C^0 in the embedded domain through which multiple wh-phrases can move, thereby escaping embedded clauses. Consider (13) for Bulgarian. It is fairly acceptable for a heavy wh-phrase to escape a wh-island.

- (13) ?[Koja ot tezi knigi]₂ se čudiš koj znae koj₁ prodava t₁ t₂?
which of these books REFL-CL wonder who knows who sells
 ‘[Which of these books]₂ do you wonder who knows who₁ sells t₁ t₂?’
 (Rudin 1988: (20b))

[-MFS] languages, on the other hand, exhibit wh-island effects since there is only one embedded specifier position of C^0 . If this position is filled, as it is in embedded wh-questions, additional wh-phrases are restricted from moving out of the embedded clause. This restriction holds in Czech, see (14).

- (14) *Komu₂ by tebe zajímalo koho₁ Marie představila t₁ t₂?
who_{DAT} COND.3SG.CL you interested who_{ACC} Marie introduced
 Lit: ‘To whom₂ do you wonder who₁ Marie introduced t₁ t₂?’

The second diagnostic is Superiority. Czech patterns with other [-MFS] languages in that it lacks Superiority effects in wh-questions. [+MFS] languages, on the other hand, respect Superiority; this is expected as movement to specifier positions is motivated by features of the attracting head, C^0 . The highest wh-phrase within the clause is attracted first and moves into the highest specifier position; lower wh-phrases move to lower specifier positions of C^0 . Wh-movement in Bulgarian, [+MFS] language, respects Superiority, (15a-b).

- (15) a. Koj kogo vižda?
who_{NOM} who_{ACC} sees
 ‘Who sees who?’

b.*Kogo koj vižda?
who_{ACC} who_{NOM} sees
Intended: ‘Who sees who?’

Czech, in contrast, entirely lacks Superiority effects in multiple wh-questions, in both matrix and embedded questions, (16).

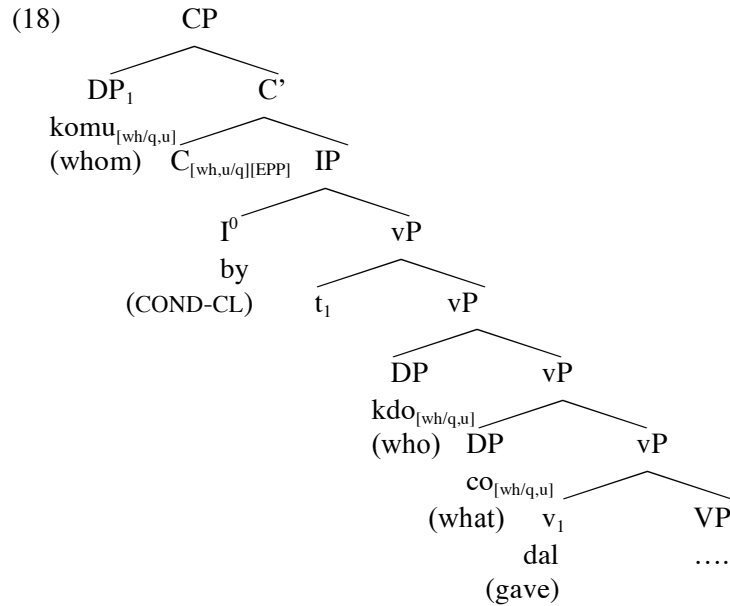
(16) a. Komu kdo co dal?
who_{DAT} who_{NOM} what_{ACC} gave
‘Who gave what to whom?’
Lit: ‘To whom who what gave?’

b. Přestal se starat, co si kdo o čem myslí.
stopped REFL-CL care_{INF} what REFL-CL who about what thinks
‘He stopped caring about who thought what about what.’
(Meyer 2003: (8))

This lack of superiority is linked to the structural position of lower wh-expressions in Richards 2001.⁷ He argues that the lack of superiority effects is a direct result of the possibility of adjunction to a lower functional head in [-MFS] languages. Since the order of adjoined XP’s is not restricted, if wh-phrases first adjoin to a lower functional projection and then the highest wh-expression raises to the specifier position of the attracting head, superiority effects are not expected. This analysis is illustrated for (17) in the tree in (18).

(17) Komu by kdo co dal?
who_{DAT} COND-CL who_{NOM} what_{ACC} gave
‘Who would give what to whom?’

⁷ Bošković 1997, 2002, on the other hand, links the lack of Superiority in short-distance wh-movement in Serbo-Croatian to the type of movement wh-expressions undergo: focus fronting, not wh-movement to [Spec, CP].



I follow standard assumptions about wh-movement: movement is motivated by an interpretable q and an uninterpretable wh feature on the attracting head (C^0) and an uninterpretable q and interpretable wh feature on the wh-XP. The features of the non-initial wh-expressions are checked by C^0 through Static Agree.

3 Further Predictions of the Analysis

Thus far, I have suggested that both wh-phrases and middlefield XP's adjoin to vP, and are, thus, are syntactically positioned between two head positions: I^0 and v^0 . In section 1.2 I provided evidence supporting this analysis for scrambled XP's, see (8). Parallel evidence exists for positioning non-initial wh-expressions within this domain as well.

The evidence presented in this section provides counter-evidence to Rudin 1988 and Richards 2001, which argue that low wh-expressions adjoin to an inflectional projection. It further supports the proposals put forth in Stjepanović 1998 and Bošković 1997, 2002 that non-initial wh-expressions are in structural positions relatively low in the left periphery. The rigid structure of the Czech left periphery allows us greater insight into the structural position of these wh-expressions than has been

possible in Serbo-Croatian.

If non-initial wh-expressions adjoin to vP, they, like middlefield non-wh-XP's, should also follow second-position clitics and precede the lexical verb, see (19), repeated from (17).

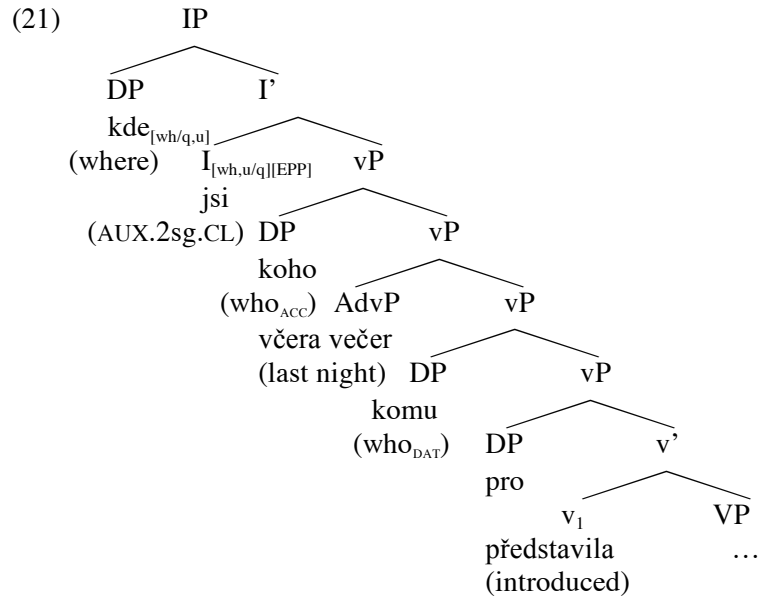
- (19) Komu by kdo co dal?
who_{DAT} COND-CL who_{NOM} what_{ACC} gave
'Who would give what to whom?'

In this domain they also intervene between scrambled XP's. This is what is found, (20), repeated from (1).

- (20) Kde jsi (včera večer) koho (včera večer) komu
where AUX.2SG.CL last night who_{ACC} last night who_{DAT}
představila?
introduced
'Where did you introduce who to whom last night?'
Lit: 'Where did (last night) who (last night) who introduce?'

The adjoined XP, *včera večer* ('last night'), can either precede the wh-expressions or intervene between them.⁸ *Komu* ('who_{DAT}') adjoins to the lowest vP projection and the adjunct, as well as *koho* ('who_{ACC}') adjoin to higher vP projections. The tree in (21) illustrates the proposed structure.

⁸ Speakers prefer the adjunct to precede the wh-phrases, rather than split them, but both orders are reported to be possible.



In section 1, I showed that contrastive topics are among the elements that obligatorily appear in the first position in the clause, preceding the clitic cluster. Contrastive topics can also appear in *wh*-questions and are identifiable by the intonational contour associated with them (see Veselá et al. 2003, Sturgeon 2006 for a phonetic analysis of the prosody of these elements). The *wh*-expression in (22) immediately precedes the contrastively topicalized DP, which appears in [Spec, IP]. Additional evidence for the structural position of the contrastive topic is that the clitic (in I^0) follows it.⁹ Second position clitics appear in the third position just when a *wh*-expression co-occurs with a contrastive topic. The discourse context for this example considers alternatives to Ema: ‘And Josef, he likes the idea’.

⁹ The clitic can optionally precede the contrastively topicalized DP. I assume, in that case, that the clitic has raised from I^0 to C^0 . The exact analysis of this head movement is an issue for future research.

- (22) A co Ema_{CT} by na to řekla?
and what Ema COND.3SG.CL on it say
 'And what would Ema say about that?'
 (Lenertová 2001: (8))

When contrastive topics appear in multiple wh-questions, they appear obligatorily between the first and second wh-expression. Other positions of the contrastive topic are considerably degraded, if not ungrammatical, (23).

- (23) Koho ty_{CT} jsi komu kde (??ty_{CT}) představila?¹⁰
who_{ACC} you AUX.2SG.CL who_{DAT} where you introduced
 'Who did you_{CT} introduce to whom where?'
 Lit: 'Who you_{CT} to whom where introduced?'

To accommodate both the wh-expression and the contrastive topic in (23), IP must intervene between the position of the first wh-phrase and lower phrases.

The final piece of evidence supporting a low position of non-initial wh-expressions is their position with respect to non-clitic modals. Recall that these verbs head vP projections, as shown in section 1 by the position of VP adverbs. Like middlefield XP's, non-initial wh-expressions can either precede or follow modals, see (24).

- (24) a. Kdo bude koho volit?
who will who_{ACC} vote-for.INF
 'Who will vote for whom?'
 Lit: 'Who will for whom vote?'
 (www.ahasweb.cz/hovory/23.htm)
- b. Kdo koho bude volit?
who who_{ACC} will vote-for.INF
 'Who will vote for whom?'
 Lit: 'Who for whom will vote?'

¹⁰ Additional positions of *ty* ('you'), such as splitting the two lower wh-expressions, are ungrammatical under the interpretation in (23). *Ty* ('you') could appear in a high left peripheral position. This would change the interpretation of the sentence, however. With *ty* ('you') in this position, *ty* would be interpreted as a left dislocated element, not a clause-internal contrastive topic.

4 Conclusion

I address a long-standing question in the literature on multiple wh-movement in Slavic: what structural positions do non-initial wh-phrases target? The particular character of the left periphery in Czech allows us to find strong evidence that non-initial wh-expressions adjoin to a position in the vP domain, rather than a position in the inflectional domain (see also Bošković 1997, 2002 and Stjepanović 1998, 2003 for Serbo-Croatian).

The syntactic evidence presented in this paper supports an analysis in which wh-expressions first scramble to the vP domain, obviating WCO effects, and then the highest wh-phrase in that domain is attracted to [Spec, CP] (see also Richards 2001).

Given the proliferation of functional projections in the left periphery (for instance, the exploded CP-domain of Rizzi 1997), it may seem that drawing a distinction between adjoined structure within the inflectional domain and adjoined structure within the verbal domain is not an important distinction, but I suggest that providing additional evidence for the position of non-initial wh-expressions allows us insight into the larger clause structure of [-MFS] wh-fronting languages, such as Czech. This line of research contributes to a stronger understanding of the purpose of fronting non-initial wh-phrases. The evidence presented here supports an approach to multiple wh-fronting like that found in Bošković 2002, ‘focus-motivated fronting’ in multiple wh-movement constructions, rather than movement motivated by the features of a head. Czech, with its strict ordering restrictions on the left periphery is an ideal language to turn to for insight into these issues.

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