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# *Wh*-QUESTIONS: A CASE STUDY IN CZECH

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FIRST EDITION

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# ABBREVIATIONS

| | |
|---|---|
| Adj(P) | Adjective (Phrase) |
| AmE | American English |
| A(P) | Adjective/Adverb (Phrase) |
| Adj(P) | Adjective (Phrase) |
| Adv(P) | Adverb (Phrase) |
| ATB | across-the-board extractions |
| AUX | Auxiliary |
| BrE | British English |
| C2 position | 'second' or 'Wackernagel's' position (of clitics) |
| CF | Contrastive Focus |
| CL | Clitic (subscript following pronoun or Auxiliary) |
| CLD | Contrastive Left Dislocation |
| COMP | complementizer |
| C(P) | Complementizer (Phrase) |
| CT | Contrastive Topic |
| Det/D(P) | Determiner (Phrase); a functional head (phrase) above NP |
| Dem/DEM | demonstrative |
| e.g. | for example |
| f/ F | Feature (f: (purely) semantic, F: grammatical) |
| Fin | Finite |
| Foc | Focus |
| G & B | Government & Binding (framework) |
| HTLD | Hanging Topic Left Dislocation |
| i.e. | that is |
| I/INFL | Inflection; a functional head above VP. T is also used. |
| INF | Infinitive |
| [iF] | interpreted (weak) feature |
| IS | Information Structure |
| MFS | Multiply Filled Specifier |
| Mod | Modal |
| MP | Measure Phrase |
| N(P) | Noun (Phrase) |
| NEG/Neg | Negation |
| Num | Numeral |
| Op / OP | Operator, Operator Phrase |
| P(P) | Preposition (Phrase) |
| P & P | Principles & Parameters (framework) |

| | |
|---|---|
| POSS | Possessive (Morpheme) |
| φ/Phi | Nominal features (Number, Gender, etc.) |
| RC | relative clause |
| REFL | Reflexive (Pronoun) |
| RN | Result Nominal |
| [Q] | question/interrogative morpheme or feature |
| Q(P) | Quantifier (Phrase) |
| RC | Relative Clause |
| RHHR | Right Hand Head Rule |
| SG | Singular |
| SPEC | Specifier |
| T/Top | Topic |
| T(P) | Tense (Phrase), equivalent to I/INFL |
| Θ (role) | Theta (role), (grammaticalized) semantic role |
| [uF] | uninterpreted (strong) feature |
| V(P) | Verb (Phrase) |
| [WH] | interrogative feature |
| WH | *Wh*-element |
| *Wh-* | interrogative/relative constituents (pronouns, Adverbs, etc.) |
| w.r.t. | with respect to |

# SUBSCRIPTS

**(Glosses)** in non-English examples

Ordering of a cluster of Phi features in glosses: subscript <u>Person + Gender + Number.Case</u>. For space reasons, only features that are relevant to a discussion are provided in the subscripts.

| | |
|---|---|
| 1, 2, 3 | Person (on Predicate) |
| ACC | Accusative (Case), Object Case |
| DAT | Dative (Case) |
| F | Feminine (φ Gender) |
| GEN | Genitive (Case) |
| INF | Infinitive |
| INS | Instrumental (Case) |
| LOC | Locative (Case) |
| M | Masculine (φ Gender) |
| N | Neuter (φ Gender) |
| NOM | Nominative (Case), Subject Case |
| P/PL | Plural (φ Number) |
| PRT | Participle |
| S/SG | Singular (φ Number) |

# INTRODUCTION

This study concentrates on the structural analysis of interrogative sentences (*Wh*-questions). The discussion is empirically based on some few English and more Czech paradigms. As for the English data, a summary of influential generative analyses is used mainly to illustrate the steps in the development of framework-based analyses, starting from the late 1960s. The Czech data is provided to demonstrate parallel paradigms and analyses, concentrating on universal similarities that surface in both languages, as well as on theoretically relevant distinctions between them.

The topic of this study is not new to me. My first linguistic work (an M.A. thesis in 1994) was about *Wh*-movement in Czech, and during my career I have authored several studies dealing with the specifics of Czech *Wh*-constructions. Material from some of these works has been used in this monograph (with relevant references). Much improvement of the text is also due to integrating the comments by anonymous reviewers - whose carefull reading I highly appreciate.

Since the beginning I have tried to argue that *Wh*-phenomena cannot be fully described without reference to (and comparison among) some formalized variant of pragmatic phenomena, more precisely the information structure of clauses. This assumption is based on my belief that what is called 'free' word order in Czech does not represent a kind of puzzling phenomenon requiring some other autonomous linguistic field. Instead, I have argued that properly defined concepts such as Focus and Topic must be analysed within the realm of (universal) formal syntax. I am happy that in the 21$^{st}$ century this idea has become non-controversial and that my younger colleagues take it for granted, diligently developing a more structured formal description of a clause which readily confirms and explains the Czech data.

The work on this monograph has been supported by my faculty, including some student researchers. Above all, my partner was already a substantial help when I wrote my first study of *Wh*-movement in Czech, and he remains no less helpful now. I am aware of, and grateful for, his presence and support.

Ludmila Veselovská

# 1. *WH*-MOVEMENT: TRANSFORMATION

Since the beginning of the generative enterprise, *Wh*-structures have been discussed as a prototypical example of a structure derived by transformation – a syntactic dislocation attested under specific conditions. With the progress of the generative framework, the concept of syntactic operations, including transformations, underwent a substantial development. Still, the analyses of motivated and systematic reorderings involving specific structures have always formed a crucial part of the model.

For example, in present-day Minimalism, the label used for transformations is *internal Merge.* The nature of the operation, however, remains basically the same: a constituent independently assumed/required to be represented in some structural position (re-)appears in another, systematically hierarchically higher position. Whatever the variants, the theoretical model requires the presence of a unique element in several places, only one of which (usually the initial position) contains a phonetically realized copy. Given that the technicalities and labels of the process (transformation, movement, internal Merge, etc.) are not the topic of this paper, I will use the general and transparent term *movement* (or *fronting*) here. The position which contains a phonetically unrealized copy/trace of the constituent will be labelled as a (sometimes coindexed) <t>.

In the first chapter of this study we will first see some introductory data as described in the fundamental and terminologically inspired dissertation of Ross (1967), published as Ross (1986), because this work is the source of most of the original argumentation for a transformation analysis of the *Wh*-structures. I will also integrate into the discussion a more general approach to *Wh*-constructions as presented in Chomsky's *On Wh Movement* (1977). In this study Chomsky argued in favour of parallel characteristics and analyses of several *Wh*-constructions, including *Wh*-questions, relative clauses, exclamatives, and also comparative clauses. Although not all the details of the above studies have survived till today in the same form, their data and paradigms remain essential for the framework till now, still representing a useful formal tool for structural analysis and more general cross-language comp
arison.

The present-day analysis of the English data will be represented by the descriptions as they appear in standard grammar manuals such as Haegeman and Guéron (1999) and Adger (2003). As for the Czech (and some other Slavic) data, it will be mentioned in diverse places to demonstrate that the phenomena are attested cross-linguistically. I will demonstrate some data from some other languages, too, often from Slavic ones, using mainly the studies by Wachowicz (1974), Rudin (1988), and several others discussed in much more detail in the following chapters.

## 1.1 The Movement Analysis

In this section, I am going to summarize typical empirical arguments in favour of the structural analysis used in what is called *Wh*-transformation, providing examples from Czech and English.

An instinctive feeling for a kind of movement (reordering) analysis is based on simple comparison of the declarative and interrogative constituent orders. In the following examples (1.1) the bold elements on the right and on the left represent parallel constituents. Those on the right, moreover, can be used in a fragmental short answer for the respective *Wh*-questions. To illustrate the similarity, I will use the Czech examples in (a/b etc.) and English in the structurally equivalent translations in (a'/b' etc.). The descriptive comments then follow.[1]

(1.1)

a. **Koho**     Robert   čte?    -    (Robert čte)   **Descarta.**
     whom$_{ACC}$   Robert   reads      (Robert reads)   Descartes$_{ACC}$

a'.   *"**Whom** does Robert read?"* -   *"(He reads) **Descartes**."*

b. **O čem**     by měl   mluvit?   -    (Měli by mluvit)   **o sobě.**
     about what   should   talk      (should talk)      about self

b'.   *"**What** should he talk about?"* - *"(He'd talk about) **himself**."*

c. **Kdy**     chtějí     přijet?   -    (Chtějí přijet)      **nyní.**
     when      want$_{3P}$    arrive      (want$_{3P}$ arrive)      now

c'.   *"**When** do they want to arrive?"* - *"(They want to arrive) **now.**"*

d. **Jaká** *je Marie?*    - *(Ona je)* **šťastná***.*
     how   is Mary$_{NOM}$    (she is)   happy$_{NOM}$

d'.   *"**How** is Mary?"*   -   *"(She is)* **happy***."*

e. **Kdo**     *pracuje těžce?* - **David**     *(pracuje těžce)*
     who$_{NOM}$   works    hard      David$_{NOM}$ (works hard)

e'.   *"**Who** is working hard?"* - *"**David** (is working hard)."*

The structures above contain identical constituents, and the pairs are clearly semantically related. The constituents in the second example of each pair, however, have been reordered and the reordering follows a specific pattern: in English they show a preposing (fronting) of the Modal/Auxiliary in front of the Subject (Subject-Auxiliary inversion) and a preposing (fronting) of the

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[1]   Czech is a highly inflectional language and therefore the lexical categories have categorial inflection (agreement). To write down all the features interpreted and present in Czech morphology would make the examples exceedingly long. Therefore, especially when space is limited, I will mark the inflection only when it is relevant to the matter being discussed.

interrogative constituent in front of the Auxiliary. The example in (1.1e) showing the questioning of the Subject represents an apparent exception, resulting from the co-occurrence of the two frontings.

In the Czech examples we can see that an equivalent of the English Auxiliary is missing, being compensated for by interrogative intonation.[2] The other reordering, however, is possible (and standard) in Czech; in a typical Czech *Wh*-question the interrogative constituent appears in the clause-initial position in the same way as in English.

Apart from the description of the systematic reordering in both English and Czech, we are also able to state explicitly the **motivation** for the dislocation which is shared by all the examples in (1.1). In other words: under which conditions can we predict a specific ordering? The interrogative pattern is typically interpreted as an (unmarked) signal of a specific clausal modality – that of *Wh*-**interrogatives**.

Every framework which prefers more simple and uniform analyses has to consider that the similarity of the declarative and interrogative structures is based on their common source. In the sections below I will list more arguments which support the parallelism between the pairs of examples in (1.1).

### 1.1.1  Subcategorization

The argument for the *Wh*-transformation based on **subcategorization** assumes that a given Verb selects a specific number and form of its complements. The example below shows the Verb *put* and demonstrates that this English Verb selects two arguments in the form of NP and PP – both of which are obligatory.[3]

(1.2)    a.    *John **put** [NP the book ][PP on the table].*
         b.    *\*John **put** [NP the book ].*
         c.    *\*John **put** [PP on the table].*

The semantic and complement subcategorization of *put* is in (1.3).

(1.3)   a.    s-selection    *put*,    V, <Agent, Patient, Location>
        b.    c-selection              V, [+N, +P]

The subcategorization of the Czech Verb *položit* 'put' is analogous to (1.3).

The grammaticality of the *Wh*-questions in (1.4) signals that the preposed *Wh*-elements – the *Wh*-pronoun (NP) and *Wh*-Adverb (PP) in (1.5) – represent the obligatory constituents missing in their postverbal positions.  In (1.4) the postverbal positions are marked as <t> with the presumably identical categorial (phrasal) label, as we assume a kind of feature identity between the

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[2]    See Daneš (1964).
[3]    For the purpose of this argumentation the distinction between NP and the DP of Abney (1987) is irrelevant. For simplicity I am going to use NP.

phonetically unrealized elements <t> and the respective phonetically overt *Wh*-constituents in the clause-initial position.[4]

(1.4)  a.  CZ  ***Co***        *Tom*   *položil*     *na stůl ?*
            [NP **what**ACC]   Tom    put [NP <*t*>]   on table
       b.  EN  *[NP **What** ] did Tom put [NP <t>] on the table ?*

(1.5)  a.  CZ  ***Kam***       *Tom*   *položil*   *tu knihu   ?*
            [PP **where**]   Tom    put        the book   [PP <*t*>]
       b.  EN  *[PP **Where**] did Tom put the book [PP <t>]?*

The argument presented above is based on the obligatorily di-transitive character of *put* (and its Czech equivalent), and it can be extended straightforwardly to other syntactic relations. We can see that its overall validity is uncontroversial in both languages.

### 1.1.2  Echo Questions and Case

Another argument in favour of the *Wh*-movement analysis, similar to the one based on complementation, can be constructed on the basis of morphological case (or a version of case theory). Consider the contrast in example (1.6) below. It shows that a pronominal Object combined with a lexical V or preposition must be marked with an overt Object case.

(1.6)  a.  *She loves *he/him.*
       b.  *She thinks about *he/him a lot.*

Moreover, the example below demonstrates that in what are called echo questions, the pronoun can be replaced by a *Wh*-pronoun – resulting in a discourse-related question asking for clarification of some misheard (or surprising) part of the previous utterance. The *Wh*-pronoun is properly case-marked according to its position/function.

(1.7)  a.  *She loves *who/whom?*
       b.  *She thinks about *who/whom a lot?*

In example (1.8) we can see that in a standard *Wh*-question the extracted *Wh*-pronominal at least optionally shows the Objective form *whom*.

(1.8)  a.  *Whom did she love?*
       b.  *About whom does she think a lot?*

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4  The Czech examples are marked as CZ in (1.4a) and (1.5a) and the gloss provides the structural description. The parallel (translational equivalent) English example is below in (b) with the label EN.

In Modern English, the Object case with *Wh*-pronouns seems preferred when they are overtly adjacent to the Verb or preposition and is otherwise optional. However, the case on *Wh* is not always optional. Consider (1.9), which shows a finite Predicate combined with an overt Subject/nominative case.

(1.9)    a.    *She thinks he will come.*
          b.    *\*She thinks him will come.*

      The example in (1.10) provides a clear contrast showing that the nominative form *who* is the only grammatical form in standard English, while the Objective form *whom* is not.

(1.10)    a.    *I wonder who she thinks will come.*
           b.    *\*I wonder whom she thinks will come.*

      In Czech, case marking does not require any form of PF adjacency with Verbs and therefore parallel contrasting examples are easy to provide. The following examples (1.11) illustrate *Wh*-constituents appearing in the canonical postverbal position in these pragmatically marked **echo questions**. The example provides both (a/c) Czech (CZ) and (b/d) English (EN) examples, the latter used as a gloss.

(1.11)    a.    CZ    *Ty    jsi    viděl    **Joea/koho/\*komu?***
                    you    AUX$_{2S}$  saw    **Joe$_{ACC}$/who$_{ACC}$/ \*who$_{DAT}$**
          b.    EN    *"You saw Joe/who(m)?"*

          c.    CZ    *Ty    jsi    pomohl    **Joeovi/komu/\*koho?***
                    you    AUX    helped    **Joe$_{DAT}$/who$_{DAT}$/\* who$_{ACC}$**
          d.    EN    *"You helped who(m)?"*

Notice that in Czech the subcategorized direct Object *koho* 'who$_{ACC}$' in (a) must be marked with the Accusative and in the Beneficiary (c) *komu* 'whom$_{DAT}$' must be in the Dative. The following examples in (1.12) represent the reordered pattern (*Wh*-questions), and the Czech pronouns show the same case marking as in the declarative and echo question patterns in (1.11).

(1.12)    a.    CZ    ***Koho/\*Komu?***    *jsi    viděl    ty?*
                    **who$_{ACC}$/ \*who$_{DAT}$**  AUX$_{2S}$  saw$_{PAST}$  you
          b.    EN    *"Who(m) did you see?"*

          c.    CZ    ***Komu/\*Koho?***    *jsi    pomohl    ty?*
                    **who$_{DAT}$/\* who$_{ACC}$**  AUX$_{2S}$  help$_{PAST}$  you
          d.    EN    *"Who(m) did you help?"*

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Case theory may have different versions, but each of them would have to identify the source, location, and context for the resulting case morphology. If it is assumed that the declaratives (and echo questions) represent a standard structure with a regular morphology (and unmarked word order), the *Wh*-questions represent a kind of motivated and systematic reordering. Here this reordering is called a **movement**, whatever its more precise description might be. On the basis of this analysis, we assume that the postverbal (*Wh*-) pronouns in (1.11) are equivalents (i.e. copies, traces, or whatever the framework prefers) of the clause-initial *Wh*-pronouns in (1.12).

In the next parts of the study I will use the above formalism, which refers to movement and uses a "trace/copy" <t> to mark the theoretically assumed pre-movement structural position(s) of the dislocated constituent.

## 1.1.3  A Note About Word Order

In the preceding sections (and throughout this study) I am assuming for Czech the unmarked constituent order basically the same as in English: i.e. Subject - Predicate - Object(s) - Adverbials. This ordering is taken for unmarked (canonical) and I use it when marking the position of traces/ copies in the structures with fronted (moved, externally merged) *Wh*-elements.

However, Czech is a consistent Null Subject language and a free word-order language. If Subjects are overt, they can appear both pre- and post-verbally depending on their role in information structure: e.g. when overt, pronominal Subjects are always highly prominent in discourse and therefore usually clause final. Similar freedom within a simple finite clause domain is typical also for Object(s) and Adverbials.

Apart from he theory relevant distribution of traces, the variety of alternative (scrambled) word-orders represents a problem also when forming salient examples to demonstrate Czech echo-questions (as in the preceding section 1.1.2) or when looking for examples of extractions out of complex DPs (as in section 2.3.5 below). In both these cases the canonical word order is usually not the one that sounds most natural to native speakers.

Considering the examples of non-fronted *Wh*-constituents (Subject, Object(s) and Adverbials) in what can be called a Czech equivalent of echo-question, the following example (2.14) shows the non-fronted *Wh*-Object in Dative can in fact appear elsewhere. The middle (postverbal, canonical) position is not ideal at all. The most salient is the clause final position marked as rhematic/ focus, and this is unlikely to be a base (in situ) position.[5]

(1.13)  a.  ***Komu*** *Petr* *včera* *dal* *dárek?*
**whom**$_{DAT}$ Peter$_{NOM}$ yesterday gave present$_{ACC}$
*"Whom did Peter give a present <t> yesterday?"*

b.  *??? Petr* ***komu*** *včera* *dal* *dárek?*

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5  In the example (2.14a) I mark the DAT position as following the ACC, but given the discussion here, it is just a theory based approximation.

| c. | *??? Petr* | *včera* | ***komu*** | *dal* | *dárek?* |
|----|-----------|---------|------------|-------|----------|
| d. | *? Petr* | *včera* | *dal* | ***komu*** | *dárek?* |
| e. | *Petr* | *včera* | *dal* | *dárek* | ***komu?*** |

The same word order dilemma we face when demonstrating extractions of attributes from a complex DP (as in sections 2.3.5 and 2.4). The remnant DP (containing the trace of the extracted *Wh*-element) will be most acceptable post-verbally, irrespective of its sentence function (i.e. including Subjects) and least acceptable structures will have this DP scrambled in the middle field.

Given the limits of the author and the time and space reasons, this study will still use the canonical word order, in spite of the fact that the presented analyses are therefore not precise (complete) because they do not include some undefined steps in derivations leading to the preferred word order varieties.

## 1.1.4   Binding of anaphors

More arguments in favour of *Wh*-movement analyses are provided by referring to binding relations involving certain co-referential elements. Since Chomsky (1981), the distribution of syntactic anaphors (reflexives and reciprocal) has been standardly explained using a hierarchical concept of "Binding Theory".

(1.14)  **Principle A**  (Binding Theory, Chomsky 1993)

An anaphor must be bound in its governing category.

The *Wh*-question in (1.15) contains a Czech reflexive possessive pronoun, the anaphor *svých* 'yourself's'. This pronoun is co-referential with the φ features of the Subject *ty* 'you' although it precedes both the Subject and the agreeing Auxiliary.[6] The initial position of the anaphor therefore violates even the very simplified version of Principle A as stated in (1.14).

(1.15)

| CZ | *Kolik **svých** fotek* | *jsi ty* | *ukázal* | *Tomovi?* |
|----|------------------------|----------|----------|-----------|
|    | how many **self's** photos | AUX2S you | showed <t> | TDAT |
| EN | *"How many photos of <u>yourself</u> did you show <t> to Tom?"* | | | |

To explain the grammaticality of (1.15) while keeping some version of a binding theory as in (1.14), we propose that the fronted *Wh*-constituent originated in some lower position and has been moved to the clause-initial position by some syntactic process – a *Wh*-movement. With this kind of

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6   For Slavic languages, both overt Subject and verbal morphology reflect the same φ features and therefore both can be claimed to be antecedents of an anaphor. Given that Czech is a consistent Null Subject language, the Subject-Predicate agreement remains in many cases the only representative of the morphologically overt φ features of the assumed Subject in finite clauses. A detailed discussion of the Slavic relativized anaphoric binder (including infinitives) is provided in Progovac (1993).

movement, it is the original position of the anaphor (i.e. the trace <t>) that complies with Principle A, forcing the attested co-reference.

### 1.1.5 The "Wanna" Contraction

In English, the structural analysis of the constraint on the colloquial phonetic contraction *wanna* 'want to' provides another argument in favour of a movement of *Wh*-constituents. This phenomenon is used to indirectly show the presence and position of the empty trace constituent <t> of *Wh*.

Let us consider the examples below. In (1.16a) we can see a salient context for the contraction *wanna* and in (1.16b) an example of a structure which does not tolerate it.

(1.16)   a.   ***Who* do you *want to/wanna* defeat?**
            *- We want to/wanna defeat **John**.*

         b.   ***Who* do you *want to/\*wanna* defeat John?**
            *- I want **Mary** to defeat John.*

The ungrammaticality of a the contraction *wanna* in (1.16b) can be explained by referring to the movement analysis of *Wh*-questions. More specifically, the (un)grammaticality seems to support the existence of the trace present between the Verb *want* and the infinitival particle *to*.

We claim that the phonetic unification of *want* and *to* into *wanna* is possible under adjacency. In (1.17a) the trace (covert copy) of the dislocated *Wh*-constituent is located in the canonical position of English Objects (immediately after the Verb) and therefore it does not interrupt the adjacency of *want* and *to*, so the two can be contracted to *wanna*.

(1.17)   a.   ***Who* do you *want to/wanna* defeat <t>?**

In (1.17b), however, the Agent of *defeat* (Object of *want*) is questioned, and the trace <t> interrupts the adjacency of *want* and *to* needed for phonetic unification, and therefore the contraction *wanna* is not acceptable.

         b.   ***Who* do you *want* <t> *to/\*wanna* defeat John?**

An analysis which does not assume a kind of movement does not have any principled explanation for the ungrammaticality of (1.16b).

To sum up: in this section we have seen that there are semantic, morpho-syntactic, and phonetic arguments in favour of a movement/dislocation analysis of *Wh*-questions, some of which I provided in the sub-sections. They show that the *Wh*-questions, in both Czech and English, exemplify a motivated and systematic reordering, which is best described in terms of *Wh*-fronting. The characteristics of this process in English and Czech are not restricted only

to *Wh*-questions. In the next section I am going to show that similar characteristics are, interestingly, shared by some other constructions as well.

## 1.2   *Wh*-fronting in other structures

This study concentrates on the characteristics of *Wh*-questions. Interrogatives, however, are not unique.

Referring to Ross (1967), who describes most of the structures that figure in early generativist descriptions, Emonds (1976, chap. 5) lists a variety of English *Wh*-fronting structures. He defines the process as fronting which moves an NP, PP, or AP to the clause-initial position, if those phrases include the *Wh*-element (feature) such as e.g. the lexical entries: *who, what, which, when, where, why, how, whose, whether*, and a few others. Some typical uses are repeated below, together with the usual terms used for the constructions. The examples in (1.18)-(1.23) are adopted from Emonds (1976, 181).

The English examples in (1.18) illustrate the interrogative clauses – the direct *Wh*-questions which are the topic of this study. These structures are usually full finite clauses, but they can appear as infinitives, too. With English infinitives, however, the Subject-Auxiliary inversion is missing and the only *Wh*-constituent allowed is *why*. In the examples the preposed *Wh*-constituent is in bold.

(1.18)  Direct Questions

|   | a. | ***Whose father*** *was the president?* |
|---|----|------------------------------------------|
|   | b. | ***In which town*** *does he reside?* |
|   | c. | ***How*** *did he achieve this?* |
|   | d. | ***How big*** *does this appear on the screen?* |
| INF | e. | ***Why*** *buy more stock at this time?* |
|   | f. | ***Why*** *knock yourself out for someone else?* |

Subject-Auxiliary inversion is also absent in the following examples of exclamations ((1.19) and conditional clauses (1.20).

(1.19)  Exclamations

|   | a. | ***What*** *big paws he has!* |
|---|----|-------------------------------|
|   | b. | ***How*** *brave he is!* |

(1.20)  Conditional clauses

|   | a. | ***Whatever*** *measures they take, they are sure to fail.* |
|---|----|-------------------------------------------------------------|
|   | b. | ***However*** *long you stay, you will be welcome.* |

In the examples of **relative clauses** in (1.21) the *Wh*-constituent is again in bold. Notice that relative clauses can have both finite and infinitival forms.

(1.21) Relative clauses

    a.     *I found a man [$_{RC}$ **who** you can buy tickets from].*

    b.     *I found a man [$_{RC}$ **from whom** you can buy tickets].*

    c.     *The taste [$_{RC}$ **of what** they are serving] is delicious.*

    d.     *The only place [$_{RC}$ **where** I feel at home] is in a city.*

INF   e.     *I found a man [$_{RC}$ **from whom** to buy tickets].*

       f.     *You have fifteen days[$_{RC}$ **in which** to finish].*

       g.     *Some tools[$_{RC}$ **with which** to work] will soon arrive by mail.*

The following **indirect questions** can follow either Verbs or Nouns, and they also appear in both finite and infinitival forms. There is no inversion in these structures.

(1.22) Indirect questions after V

    a.     *I wonder **whether** he will show up.*

    b.     *I forgot **how efficient** she was.*

    c.     *They were not sure (of) **why** she left.*

INF   d.     *They told you **how** to operate that.*

       e.     *John asked Mary **when** to stop.*

(1.23) Indirect questions after N

    a.     *The problem of how often we should meet hasn't been discussed.*

    b.     *John's understanding of how this works is faulty.*

INF   c.     *The question of who to consult in this matter is perplexing.*

       d.     *They have no knowledge of which routes to take.*

For Emonds (1976) *Wh*-fronting was a transformation which preposes a *Wh*-constituent to the position of COMP – the sentence-initial grammatical formative category proposed in the studies of the English Complementizer system in Bresnan (1970; 1976).

    Chomsky's (1977) essay, *On Wh-movement*, is a highly influential study of several fronting processes that included this group of *Wh*-constructions, in a late Extended Theory framework. The author attempted to perform a uniform analysis of several constructions arguably based on *Wh*-movement. The study generalizing *Wh*-movement represented a kind of turning point for research in this field and influenced the later development of

linguistic theory. Much of the data and analyses presented in the following chapters is a reaction to the rich paradigms, proposals, and terminology already provided in Ross (1967) and Chomsky (1977).

## 1.3   Summary of Chapter 1

In this chapter, I introduced the phenomena of *Wh*-questions, concentrating on Czech data. In Section 1.1 we saw semantic and syntactic arguments in favour of the structure-based movement analysis confirming the theoretically predicted binding and selection (subcategorization) of lexical Verbs and prepositions. Overt case morphology and linearity were also used to argue in favour of the syntactic nature of the *Wh* re-orderings.

Section 1.2 briefly introduced some English structures showing similar characteristics, the existence of which supports the idea of a general dislocation analysis of *Wh*-questions. Given the arguments provided in this chapter, I take it as demonstrated that *Wh*-questions, in both Czech and English, represent a motivated and systematic re-ordering best described in terms of a process of *Wh*-fronting.

(1.24) *Wh*-movement          a) *Wh*-fronting
                              b) Subj-Aux "inversion"
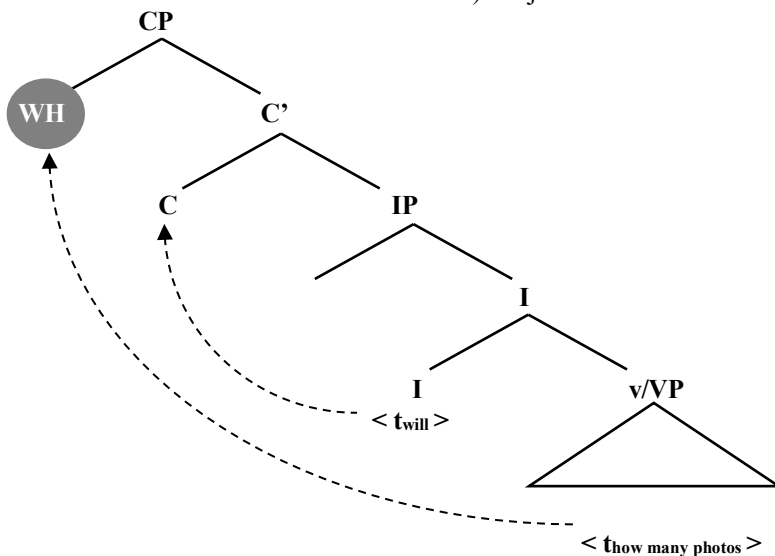


(1.25)

| | | | | | | |
|---|---|---|---|---|---|---|
| EN | *How many photos* | *will* | *Peter* | *< $t_{will}$ > show* | *< $t_{wh}$ >* | *to Tom?'* |
| CZ | *Kolik fotek* | *bude* | *Petr* | *ukazovat* | | *Tomovi?* |
| | how many photos | FUT | Peter$_{NOM}$ | show | | Tom$_{DAT}$ |

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The structure in (1.24) is thus intended to cover the data demonstrated in this chapter, in accordance with the formalization of a standard minimalist framework. It is adopted from Adger (2003) for English. The *Wh*-question structure in (1.24) assumes two standard functional projections above the Verb Phrase, whose heads are C and I. The top projection of CP hosts the *Wh*-constituent in its specifier (a phrasal position), and the head C position is the landing site of the interrogative fronting of the Auxiliary. The lower functional domain IP contains a Subject (obligatorily overt in English), and the head position is the base position for the (external) Merge of the Auxiliary (in traditional terms the position of the sentence operator). The adjunct *Wh*-pronoun is presumably base-generated inside the VP. The proposed movements (in English) are suggested by dotted arrows.

As for Czech, we can see in (1.25) that the equivalence concerns minimally the initial position of the fronted *Wh*-constituent. The surface overt positions of Subject, Verb, and Object can be different in Czech (the word order in the example above has been chosen to be most similar to that of English).

In the following chapters, I will concentrate on a more detailed description of the *Wh*-questions and the theoretical concepts used for their analysis.