

Where Czech meets Chinese: *Wh*-indefinites in modal existential *wh*-constructions

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Thesis. This paper defends the following thesis:

- (1) *Wh*-words in Czech function as *wh*-existentials (of the Chinese type, cf. Lin 1998) iff
 - i. they are relative operators, i.e. λ -abstractors (Heim and Kratzer 1998) and
 - ii. they are intensional(ized), i.e. denote situation (or world) variables

I show that the two conditions in (1), which can be viewed as a lexical specification of a class of *wh*-expressions in Czech, are satisfied in Modal Existential *wh*-Constructions (MEC, term from Grosu 2004) (also called irrealis free relatives (Grosu 1994), non-indicative *wh*-clauses (Izvorski 1998), or indefinite free relatives (Caponigro 2001)), illustrated in (2). The most notable properties of MEC are existential quantification, irrealis modality (possibility/availability), relative clause-like interpretation, and very limited distribution (they are only complements to a limited set of verbs, ‘have’ and ‘be’ in Czech).

- (2) (Ne)mám/není/je [s kým mluvit]
 (not)have.1sg/not.is.3sg/is.3sg with who.instr talk.inf
 ‘There’s no one (for me) to talk to’ (lit. ‘I don’t have with whom to talk’)

Assumptions. *Wh*-relative operators are, by definition, bi-functional expressions: first, by means of A-bar movement they trigger λ -abstraction; second, they function as anaphors (headed relatives: *the woman_i who_i I like*) or determiners/quantifiers (free relatives), either definites (*I met who you were talking about*), or universals (*I’ll eat what(ever) you cook*). I assume that nothing in principle prevents a *wh*-relative operator from being a Heimian indefinite (i.e. a restricted variable, Heim 1982), arguably the case of *wh*-words in MEC. This means that being an operator does not entail being a quantifier (Berman 1991, Lasnik and Stowell 1991).

Intensional(ized) indefinites are expressions which, besides their standard denotation (e.g. individual variable in the case of nominal indefinites) denote situation variables. Such indefinites have been argued to constitute the semantic core of polarity and free choice items (Dayal 1998, Giannakidou 2001).

Syntax. First, it will be shown that Czech infinitival MEC, even though relative clauses, are no CPs: they are transparent for clitic extraction, they cannot be selected by a demonstrative CP-correlative, they cannot move as CPs can (topicalize), etc. Besides that, *wh*-words in MEC always take narrow scope with respect to clause-mate universal quantifiers and, if in nominative, they can agree with the “matrix” verb ‘have’. Therefore, MEC are best viewed as vP-level relative clauses, whose *wh*-words are non-specific indefinites and get quantified over by the existential closure. Accordingly, the “matrix” verb is a sort of restructuring existential modal, inserted into the functional structure of TP (Cinque 2006). I propose the following syntactic structure, based on the hierarchies proposed by Beghelli and Stowell (1997) and Cinque (1999):

- (3) [CP [(DistP \forall -quantifiers) [TP [\exists P \exists -closure [Mood_{irrealis}P [vP *wh* [vP ... <*wh*> ...]]]]]]]]
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Semantics. I assume that vPs denote events (which are essentially properties) and events can be represented as sets of (actual and possible) situations, i.e. $\lambda s.P(s)$ (Kratzer 2008). A *wh*-word in MEC is represented as an intensionalized indefinite, i.e. $\lambda x\lambda s.P(x,s)$. Being a relative operator (by assumption), the *wh*-word moves and triggers λ -abstraction at the vP level: the vP becomes $\lambda x\lambda s.P(x,s)$. This gives us (4) as the denotation of the MEC in (2). The modal existential verb ‘have’/‘be’ is an existential quantifier which, by means of the incorporated irrealis Mood head, ranges over irrealis (possible/available) situations (a quantifier analogous to Dayal’s 1998 inherently modal universal *any*) and quantifies over the MEC, as seen in (5)

(4) $\lambda x\lambda s.\mathbf{human}(x,s) \ \& \ \mathbf{talk \ to}(I,x,s)$

(5) a. $(\neg)\exists(x,s) [\mathbf{human}(x,s) \ \& \ \mathbf{talk \ to}(I,x,s)]$

b. There is a/no possible/available situation *s* (with individuals *x*) such that *x* is a human in *s* and I talk to *x* in *s*

Treating *wh*-words in MEC as relative operators and intensional indefinites at the same time explains the core set of facts, namely that MEC resemble free relatives and are always interpreted as modal. The assumption that they are vPs/denote situations clarifies their severely limited distribution.

Furthermore, the analysis offers a promising view of two so far unexplained facts, namely that (i) no complex *wh*-phrases are possible in MEC (a fact reminiscent of Chinese and Germanic *wh*-indefinites) and (ii) some adjunct *wh*-expressions (‘when’ and ‘how’ in Czech) behave as NPIs in MEC. The former fact can be explained by assuming that complex *wh*-phrases are licensed/generated quite high in the CP (van Craenenbroeck 2004). The latter fact matches the assumption that NPIs and intensional indefinites belong to the same class of expressions—ones which need to be licensed by some c-commanding non-veridical operator (e.g. modality and negation, cf. Giannakidou 2001).

References

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