Topicality, Intervention and Why-questions

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This paper presents new Chinese data suggesting that the Intervention Effects in *why*-questions are separate from other quantifier-induced Intervention Effects, and should receive a semantic explanation that hinges upon the idiosyncrasies of the *why*-adjunct. Recent literature in Chinese (Aoun & Li, 1991; Stepanov & Tsai, 2008; Cheng, 2009; Yang, 2012) proposes that Chinese Intervention Effects are a minimality effect (Rizzi, 2001), caused by *wh*-phrases moving across a quantifier at LF (1). As such, they don't predict that, in *why*-questions, the patterns of intervention are sensitive to the types of quantifiers. I show in (2): (i) monotone decreasing quantifiers consistently **induce** Intervention Effects, in matrix & embedded *why*-questions (2a & 2d); (ii) monotone increasing quantifiers **don't induce** Intervention Effects (2b); (iii) (increasing) modified numeral & (non-monotonic) bare numeral quantifiers induce **weak** intervention in matrix *why*-questions, which is **ameliorated** under embedded contexts (2c & 2d).

I propose to account for the full array of data by adopting a high attachment analysis of the *why*-adjunct, and by endorsing the view that topicality correlates with quantifier types. I assume with Rizzi (1990), Bromberger (1992) and Thornton (2008) that *why* doesn't bind any traces/variables and favors high/late attachment during derivation. Specifically, I follow Ko's (2005) proposal that the equivalents of *why* in East Asian languages (*e.g.* Chinese *weishenme*) merge **directly** at [Spec,CP], after all the non-*why* scopal elements have been merged at their scope positions below [Spec,CP]. In this view, in Chinese, if a scopal element takes wide scope over *weishenme*, it necessarily undergoes topicalization in overt syntax, from its scope position to the topic position, which is above [Spec,CP] (Krifka, 2001; Ko, 2005; Ebert et al., 2014). Consequently, if a quantifier is construed as topical and hence is able to undergo topicalization, it may scope above *weishenme*. On the other hand, if a quantifier cannot be construed as topical, outscoping would be impossible, and Chinese Intervention Effects arise in such cases, because for the non-topicalizable quantifier, the form [$_{\text{Topic}}$ *Quantifier* [$_{\text{Spec,CP}}$ *weishenme*]] is uninterpretable, hence semantically anomalous.

One prerequisite for generalized quantifiers to be topical is to express type-e (individual) meaning. Reinhart (1997) proposes that a class of generalized quantifiers express type-e meaning, by denoting a particular plurality individual set selected by a choice function (a witness set), rather than denoting a (Barwise-Cooper style) relation between predicates. Constant (2012) further specifies this class to include at least increasing quantifiers (including increasing modified numerals) and bare numerals. Constant's evidence (*e.g.* these quantifiers may directly serve as contrastive topics; they may be one argument of an equative copular predicate, whose other argument is a regular plurality NP) is verified in Chinese (3).

Because decreasing quantifiers fail to express type-e meaning, (2a)'s Intervention Effects are explained. The absence of intervention for increasing quantifiers in (2b) also follows directly. (2c) follows from a separate pragmatic reason: (*at least*) *five people* can denote individuals, but under a neutral context it is hard to determine which particular individual set is being anchored. Krifka (2001) observes the same problem for the English example in (4): without additional contextual information, it is unclear which three boys are being picked out. Embedded questions offer the contexts to anchor a particular set (Szabolcsi, 2010), hence the amelioration in (2d).

Data

(1) A Relativized Minimality account (*cf*. Rizzi, 2001) of Intervention Effects in *why*-questions:

*[$_{CP}$ *Quantifier weishenme*] surface syntax
*[$_{CP}$ [$_{Spec,CP}$ *weishenme*$_i$ [$_{C0}$ ...*Quantifier* t_i]]] LF

(2) a. *{Meiyou ren / henshao ren} weishenme mei lai?
No person/few person why NEG come
#'For nobody/few people, why they didn't come?'
b. Daduoshu ren weishenme mei lai?
Most person why NEG come
'For a certain plurality set of individuals that is the majority of all the context-relevant individuals, why they didn't come?'
c. ??{Zhishao wu-ge ren / wu-ge ren} weishenme mei lai?
{*At least five-CLF person /five-CLF person*} *why NEG come*
'For a certain plurality set of individuals that is a subset of all the context-relevant individuals with the cardinality of (at least) five, why they didn't come?'
d. Wo yijing zhidao {zhishao wu-ge ren /wu-ge ren / *henshaoren/ *meiyouren} weishenme mei lai.
I already know {*at.least five-CLF person /five-CLF person/few person/no person*} *why NEG come*
'I already knew why {at least five people/five people/*few people/*nobody} didn't come.'

(3) a. Contrastive Topic
---Yanjiusheng-men zhu zai na'er?
Graduate.student-PLURAL live LOC where?
'Where do the grads live?'
---[Daduoshu/Wu-ge/*Henshao yanjiusheng]$_{CT}$ zhu zai [anhesite]$_F$.
*Most /Five-CLF/*Few graduate.student live LOC Amherst*
'{Most of /Five of/*Few of} the graduate students live at Amherst.'
b. Equatives (copular constructions that equate two individual-denoting expressions)
[Zhan zai na'er de ren] shi [wo de xuesheng li de {daduoshu/wu-ge/*henshao}].
*Stand LOC there REL person COP I REL student inside REL most/five-CLF/*few*
'Those standing over there are {most/five/*few} of my students.'

(4) ??Which dishes did three boys make?
"Pick out three boys (out of a relevant set of boys), and tell me which dishes did they make?" (Krifka 2001: 8)

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