

Semantics of *Why* and *In Situ* Islands (speech act special session)

Introduction East Asian *wh-in situ* languages are known to obey strong island constraints when reason *wh*-adverbials (counterparts of *why*) stay *in situ*. Island effects disappear when *why* is replaced by other *wh*-phrases (Huang 1982). Below is an illustration of this contrast in the Chinese complex NP contexts (Bayer, 2006).

- (1) a. *Ni zui xihuan du zhangsan **weishenme** xie de shu?
 you most like read zhangsan **why** write REL book?
 ‘Why_i do you like to read the book that Zhangsan wrote t_i?’
 b. Ni zui xihuan du zhangsan **shenmeshihou** xie de shu?
 you most like read zhangsan **when** write REL book?
 ‘When_i do you like the book that Zhangsan wrote t_i?’

This paper departs from the traditional approach (Huang, 1982; Lasnik and Saito, 1984) according to which *why*-induced *in situ* strong islands follow from the same movement mechanism as in overt strong islands. Based on Chinese data, I propose that *in situ* islands is reduced to a main clause phenomenon, such that island-inducing contexts are ruled out because they requires semantic embedding. I argue that Chinese *why* is semantic unembeddable, and as a consequence direct *why*-questions in Chinese are necessarily root questions.

Evidence Chinese *why* does not embed under regular scope-bearing operators, in contrast with other *wh*-phrases. (2) illustrates that Chinese *why* fails to scope under focus-sensitive phrases (due to Bromberger 1993). While (2a) presupposes that *only* Zhangsan, out of all individuals, ate the apples, (2b) is compatible with the reading in which every individual ate the apples at different times, and the speaker is simply concerned with the time of Zhangsan’s eating event. This follows if Chinese *why* always falls outside the scope of the focus operator: the latter first applies to a set of alternative individuals and provides a focus value (i.e. zhangsan), before *why* applies to range over a set of reasons.

- (2) a. Weishenme shi zhangsan chi-le tade pingguo?
 why foc zhangsan eat-asp his apple
 ‘Why did [Zhangsan]^F eat his apple(s)?’
 b. Shenmeshihou shi zhangsan chi-le tade pingguo?
 when foc zhangsan eat-asp his apple
 ‘When did [Zhangsan]^F eat his apple(s)?’

(3) similarly illustrates that only a wide scope reading of *why* is available, when in principle scopal interaction allows for two truth-conditionally distinguishable readings in quantificational, modal and negation contexts.

- (3) a. weishenme zhishao sange ren likai-le? (quantifier)
 why at.least three person leave-asp?
 ‘Why is it the case that at least three men left?’
 *‘What reason_i does a group of at least three men (that we pick) have t_i for leaving?’
 b. Lianheguo weishenme ken quxiao zhicai? (modal)
 the.UN why be.willing.to lift sanction?
 ‘Why is it the case that the UN was willing to lift the sanction?’
 * ‘What reason_i was the UN willing to lift the sanction for t_i?’
 c. Meiyou ren weishenme mai shu? (negation)
 no person why buy book?
 ‘Why nobody bought books?’
 * ‘What reason_i did nobody buy books for t_i?’

(4) illustrates *why*'s inability to embed under if-conditionals (due to Scheffler 2008).

(4) Zhangsan weishenme ta jue ding cizhi dehua ni hui kaolv jieshou?

zhangsan why he decide.to resign COND ni will consider accept?

'Why would you consider accepting if Zhangsan decided to resign?'

* 'What reason_i is such that if Zhangsan decides to resign for t_i, you would consider accepting?'

The general ban on semantic embedding yields a natural explanation of previous observations that *why* simply 'appends' to a sentence it combines with (van Valin 1997), that *why* never leaves behind a trace (Bromberger 1993) and that it favors high merge (e.g. Ko, 2005). Except for explicit performative verbs and speech act-modifying adverbs, the non-*why* portion in *why*-questions forms a proposition radical (fully scope-resolved) and falls within *why*'s scope as its argument. *Why* takes the propositional argument and relates it to a reason in a binary causal relation (Szabolcsi and Zwarts, 1993; Oshima, 2005).

Island effects I now show that island effects arise due to the failure of the relevant sentences to be interpreted as root *why*-questions. In all island-inducing environments, the *why*-clause is (semantically) embedded. The embedded status directly conflicts with the constraint for the *why*-clause to be a root clause. Take the complex NP island environment in (1a) for illustration. For the restrictive relative clause to be interpretable, *why* is interpreted within the scope of the iota operator of the definiteness-denoting relative head. The referents of the relative head are defined in terms of the alternative set of reasons within the denotation of *weishenme* 'why':

(5) a. $\llbracket weishenme \rrbracket = \lambda q_{\langle s,t \rangle} \lambda p_{\langle s,t \rangle} \exists r[\text{reason}(r) \wedge p = \lambda w': \text{CAUSE}(r, q)]$

b. Denotation of [*the book that Zhangsan wrote why*]: $\iota x. [\text{book}(x) \wedge \lambda p \exists r[\text{reason}(r) \wedge p = \lambda w': \text{CAUSE}(r, q: \text{zhangsan wrote } x)(w')]$

Embedded speech acts The above account predicts that *weishenme* cannot be embedded at all, regardless of whether the embedded clause is an island clause (such as a relative clause) or a complement clause. I present tentative evidence demonstrating that cases where *weishenme* is syntactically embeddable in complements involve embedded speech acts in the sense of Krifka (2014), where matrix predicates introduce a complement that gives rise to the main clause phenomenon. This argument revives McCawley's (1994) related insights, in which he points out that certain extractions from complements should be more plausibly analyzed as extractions from a matrix clause with a parenthetical expression attached to it. McCawley goes on to reason that a matrix predicate that does not easily lend itself to a parenthetical interpretation yields an unacceptable embedded *why*-complement. The contrast of embedding in terms of matrix predicate type is illustrated below.

(6) Ni jue de/renwei/*huaiyi/*xihuan [ta weishenme cizhi]?

You feel/think/*doubt/*enjoy [he why resign]?

'Why_i do you feel/think [that he resigned t_i]?'

*'Why_i do you doubt/like [that he resigned t_i]?'

Conclusion I show that *why*-induced *in situ* islands can be accommodated within the interpretational component of the grammar. As such they can be exempt from structural locality constraints, hence their island behaviors should not be invoked as evidence for positing covert movement in *wh-in situ* languages.

Selected References [1] Bromberger (1992). *On what we know we don't know*. Chicago. [2] Huang (1982). *Logical Relations in Chinese*. MIT diss. [3] Ko (2005). Syntax of *why-in-situ*. *NLLT* 23(4). [4] Krifka (2014). Embedding speech acts. [5] Tsai (2008). Left periphery and how-why alternations. *JEAL* 17(2).