

## On the discourse dynamics of Exceptional *what*-Questions

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This study investigates what we call ‘Exceptional *what*-Questions’ (*Ewh*-Qs), a crosslinguistically attested phenomenon in which *what* is used non-argumentally. In Japanese, for instance, *nani-o* ‘what-ACC’ in (1) is not an argument of *mi* (‘see’), because the object is already saturated with *kocchi* ‘here’ (see Kurafuji 1996 and Ochi 1999 for Mandarin, Russian, German etc.).

- (1) anata-wa **nani-o** jirojiro kocchi-o mi-tei-ru {no da / no desu ka}?  
you-TOP what-ACC suspiciously here-ACC see-PROG-NPST FIN COP FIN COP.POL Q

lit. ‘What are you looking at me?’ (also implies the speaker is annoyed by being looked at)

We provide the first account of the discourse effects that *Ewh*-Qs have on the flow of conversation. We explore the following intuitions: (i) *Ewh*-Qs convey meanings close to *why*-questions (Kurafuji 1996, Ochi 1999 a.o.); (ii) *Ewh*-Qs are like assertions in that the speaker doesn’t expect an answer; and (iii) *Ewh*-Qs express the speaker’s surprise at the described events (cf. Ochi 1999, Nakao and Obata 2009). Our overarching claim is that an *Ewh*-Q signals the speaker’s commitment that there is no answer for the *why*-question in the common ground even if the question is asked. We tease apart the assertion-like and the question-like components of the meanings carried by *Ewh*-Qs, and argue that they target the at-issue (AI) and the non-at-issue (NAI) level respectively. The discourse function of *Ewh*-Qs is derived through the interaction between the AI and the NAI content. We also extend our analysis of *Ewh*-Qs to rhetorical questions (RQs), another interrogative form that is used for non-information-seeking purposes.

**Component A: Non-at-issueness.** In contrast to standard *why*-questions, *Ewh*-Qs lack anaphoric potentials as questions, as shown in the Q-A pairs (2a)/(3) and (2b)/(3). The anaphor *sore* ‘that’, whose full-form equivalent is ‘*the reason why he is sleeping on the floor*’, is felicitous with (2b) but not with (2a) (contra Ochi 1999 a.o.’s treatment of *nani-o* as semantically equivalent with *why*).

- (2) Context: Ann and Betty are talking about Carl, who is sleeping on the floor.  
aitsu-wa {a. nani-o / b. naze} yuka-de ne-tei-ru no (da)?  
that.guy-TOP what-ACC why floor-LOC sleep-PROG-NPST FIN COP

a. Ann to Betty: lit. ‘What is that guy [=Carl] sleeping on the floor?’

b. Ann to Betty: ‘Why is that guy [=Carl] sleeping on the floor?’

- (3) watashi-mo *sore-o* shir-itai. (4) #(dame?) beddo-ga kowareta kara.  
I-also that-ACC know-want bad bed-NOM broke because  
Betty: ‘I want to know it, too.’ Carl: ‘Anything wrong? My bed broke.’  
(#response to (2a), ✓ to (2b)) (✓ response to (2a) with *dame*)

Fragment *because*-answers (e.g. (4) without *dame*?) are also odd as the response to (2a), but not to (2b). However, *because*-answers become acceptable in responding *Ewh*-Qs if raised indirectly, as in (4) with *dame*?. Given that the availability of salient (sets of) propositional referents for anaphora diagnoses at-issueness (Koev 2018), we take (3) and (4) as an indication that the interrogative *why*-meaning in *Ewh*-Qs are non-at-issue content.

**Component B: At-issueness.** Although an *Ewh*-Q does not have anaphoric potential as a question, it does provide a propositional discourse referent for future anaphora, as in the response particle *un* ‘yeah’ in (5) (Krifka 2013). Also, an *Ewh*-Q can address a Question Under Discussion (cf. Simon et al 2010’s notion of at-issueness defined in terms of relevance with QUDs), as in (6).

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| <p>(5) <i>un</i>, yamete hoshii yone.<br/>         yeah stop want SFP<br/>         Betty: ‘Yeah, I want him to stop (doing this).’<br/>         (✓Response to (2a), # to (2b))</p> | <p>(6) doo shi-ta no? kaaru-ni iratsuite<br/>         how do-PST FIN Carl-DAT be.unhappy<br/>         B to A: ‘What happened? You seem unhappy with Carl.’<br/>         (✓Continued by (2a))</p> |
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We argue that an *Ewh-Q* ‘*nani-o p no?*’ establishes the proposition ‘*There is no reason that p*’ as its at-issue content. This is also supported by the fact that an *Ewh-Q* can be accepted, as in (5) or responses like *Hai, sumimasen* ‘Yes, I’m sorry’, or rejected, as in (4).

**Analysis.** We define ‘*nani-o...no?*’ (as well as *what* in *Ewh-Qs* of other languages) as an *Ewh-Q* operator that gives rise to the discourse effects discussed in Component A and B. Following Farkas and Bruce (2010), the sentence form ‘*nani-o p no?*’ uttered by the speaker *a* is a function from input to output contexts, as in (7). We assume that a context *c* is a pentuple  $\langle \mathbf{A}, \mathbf{T}, \mathbf{DC}, \mathbf{cg}, \mathbf{ps} \rangle$ , where  $\mathbf{A}$  is a set of conversation participants,  $\mathbf{T}$  is a table listing a stack of propositions representing what have been proposed,  $\mathbf{DC}$  maps each conversation participant to her public commitments,  $\mathbf{cg}$  is a Stalnakerian common ground of sets of propositions,  $\mathbf{ps}$  is a projected set representing a set of future  $\mathbf{cg}$  in the ongoing conversation once the issues on  $\mathbf{T}$  are settled. In addition,  $\mathbf{push}(e, \mathbf{T})$  is a stack operation that adds an item *e* to the top of  $\mathbf{T}$ .

$$(7) \llbracket Ewh-Q \rrbracket = \lambda p. \lambda a. \lambda c. \left\langle \mathbf{A}_c, \mathbf{push}(\{No-Reason(p)\}, \mathbf{T}_c), \mathbf{DC}_c^a \cup \{No-Reason(p)\}, \mathbf{cg}_c, \right. \\ \left. \{\mathbf{cg}_c \cup \{q\} \mid q \in \{No-Reason(p), Reason_1, \dots, Reason_n\}\} \right\rangle$$

defined only if  $p \in \mathbf{cg}_c$  (where  $\llbracket Why p? \rrbracket = \{Reason_1, \dots, Reason_n\}$ )

An *Ewh-Q* ‘*nani-o p no?*’ proposes to update the  $\mathbf{cg}_c$  with ‘*There is no reason that p*’, while adding it to the projected set alongside the propositions denoted by the question *Why p?* in a pointwise fashion (we assume Hamblin-style denotation of questions). In other words, the speaker of an *Ewh-Q* raises a question (at NAI level) but also answers the question by herself (at AI level). This captures the assertion-like and the question-like nature of *Ewh-Qs* (intuition (i) and (ii)). In particular, the answer proposed by the speaker suggests that the question is unresolvable, resulting in the speaker’s sense of surprise at the event (intuition (iii)). This analysis also captures the several responding moves that an *Ewh-Q* allows. It can be accepted/rejected but not directly answered because of the proposition on top of  $\mathbf{T}$ . It can be answered indirectly (cf. (4)) only when the answerer rejects speaker’s proposal (by popping off the top item of  $\mathbf{T}$  and then committing herself to one of the future  $\mathbf{cgs}$  listed in the  $\mathbf{ps}$ ). Assuming the factivity of *reason* and *why*, the AI/NAI contents also predict correctly that the speaker of an *Ewh-Q* presupposes *p* (in the sense of Stalnaker 2002). For example, (2a) is infelicitous if Ann believes that Betty has no idea about Carl’s strange behavior.

**Rhetorical questions.** RQs resemble *Ewh-Qs* in that they take on interrogative forms but do not require an answer. Yet RQs can be answered directly, as in (8)–(9) (Caponigro and Sprouse 2007 a.o.). This can be explained by a different division of labor in the interpretation of RQs: what AI in RQs addresses is truly a question (i.e. the topmost item on  $\mathbf{T}$  is a question), and NAI highlights that the answer is already in  $\mathbf{cg}$  (Caponigro and Sprouse 2007, Biezma and Rawlins 2017).

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| <p>(8) Q: Who will want to live in a town like this?</p>      | <p>A: No one.</p>    |
| <p>(9) Mother: Who fed you and gave you proper education?</p> | <p>Son: You did.</p> |

**Selected Refs.** Biezma and Rawlins 2017 ‘Rhetorical questions’ *SALT27* • Caponigro and Sprouse 2007 ‘Rhetorical questions as questions’ *SuB11* • Farkas and Bruce 2010 ‘On reacting to assertions and polar questions’ *JoS* • Koev 2018 ‘Notions of at-issueness’ *LangLingComp* • Krifka 2013 ‘Response particles as propositional anaphors’ *SALT23* • Ochi 1999 *Constrains on Feature Checking*. UConn diss. • Simon et al. 2010 ‘What projects and why’ *SALT20*