

## Deriving the lack of verbal *wh*-words from LF legibility conditions

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**Preliminary observation:** We can ask questions about different participants in an eventuality (*who, what, whom...*), or modifiers of different kind (*where, when, how...*) but we cannot directly ask questions on the nature of the eventuality itself. There is simply no interrogative pro-verb, so that we can ask questions such as (1), roughly meaning 'What type of eventuality happened such that it has John as external argument and Mary as internal argument?':

- (1) \**Whxyzed* John Mary?

The generalization that I will propose is the following one:

- (2) *Generalization:* There are no verbal *wh*-words ranging over any eventuality type.

**Crosslinguistic evidence:** The ban on interrogative pro-verbs has seldom been discussed in linguistics. Hagège (2008) only classifies 28 languages as having the property of displaying interrogative pro-verbs (see also Idiatov & van der Auwera (2004)), but as I will argue, many of them are not pro-verbs questioning eventuality types, and if they are, they are syntactic and semantically very restricted (see below).

**Proposal:** I will propose that the lack of verbal *wh*-words cross-linguistically derives from a legibility constraint at the interface between the linguistic computation and the language-external Conceptual-Intentional systems. I will depart from the assumption that at LF sentences are Neo-Davidsonian descriptions of eventualities (cf. i.a. Parsons (1990); Hornstein (2002); Pietroski (2005)) whereby example (3a) would get the logical form representation in (3b):

- (3) a. Brutus stabbed Cæsar.  
b.  $\exists e$  [Agent(e, Brutus) & Stabbing(e) & Patient(e, Cæsar)]

My proposal is that the lack of verbal *wh*-words derives from a general constraint on the logic of predication: predication is logical assertion whereby a property is ascribed/attributed/applied to an object (cf. i.a. McGinn (2000); Burge (2007); Liebesman (2015)) and this is incompatible with querying that very same property (just like stating and questioning are different speech acts). In other words, predicates predicate and it is therefore that predication *qua* interrogation is incongruent. As a consequence, natural language allows for questions such as (4a) or (4b), but not for questions such as (4c):

- (4) a.  $\exists e$  [Agent(e, ?) & Stabbing(e) & Patient(e, Cæsar)]  
'Who stabbed Cæsar?'  
b.  $\exists e$  [Theme(e, Cæsar) & Dying(e) & Location(e, ?)]  
'Where did Cæsar die?'  
c. \* $\exists e$  [Agent(e, Brutus) & ?(e) & Patient(e, Cæsar)]

Furthermore, an LF along the lines in (4c) would be unwarranted, since a predicate like *?(e)* crucially devoids the eventuality of any nature (it is completely undetermined), and as a consequence the eventuality participants get no  $\theta$ -role (given that  $\theta$ -roles directly depend on the nature/structure of the eventuality at stake (cf. Pietroski (2005); Borer (2005); Ramchand (2008)) and unassignment of  $\theta$ -roles violates the  $\theta$ -criterion (Chomsky, 1981):

- (5) \* $\exists e$  [ \_\_\_\_ (e, Brutus) & ?(e) & Past(e) & \_\_\_\_ (e, Cæsar)]

The logical form in (5) is critically underdetermined where \_\_\_\_ (*e, Brutus/Cæsar*) may correspond to any theta role (agent, experiencer, possessor...). In a nutshell then, my proposal is that the universal lack of genuine verbal question-words ranging for eventuality types derives from the LF illegibility they would generate, since their semantics involves predicating and interrogating at the same time and a failure to assign  $\theta$ -roles to eventuality participants.

**Revisiting the cross-linguistic evidence:** My hypothesis predicts the lack of *wh*-words that question the nature of an eventuality. However, note that it leaves room for verbal *wh*-words

to exist, provided that they are semantically ‘loaded’ (the type of eventuality they stand for is determinate and so are the (macro)  $\theta$ -roles of their participants). I will argue that this is precisely the case in the very few languages that have interrogative pro-verbs ranging over eventualities. For instance, languages such as Caviñena (Guillaume, 2008), Mapudungun (Smeets, 2007), Evenki (Nedjalkov, 1997), Tyvan (Anderson & Harrison, 1999), Tinrin (Osumi, 1995), Erromangan (Crowley, 1998) or a set of Mongolic languages (Janhunen, 2003) have interrogative verbs that are restricted to intransitive uses. And others like Dyrbal (Dixon, 1972), Vitu (van den Berg & Bachet, 2006), Motuna (Onishi, 1994), Chuckchee (Dunn, 1999) or Nêlêmwa (Bril, 2002) have different verbs/verbal forms for intransitives and transitives. The interrogative verbs employed in different argument structures are morpho-syntactically different and therefore they can still assign determinate  $\theta$ -roles to their participants. For instance, in Kavalan (Lin, 2012), the interrogative verb *quni* gets the *go where* reading in intransitive constructions (where the subject is a ‘theme’ (6)), and in (7) it gets the *do what* reading associated to an ‘agent’ subject but, crucially, there the verb is marked with the agent voice (AV) marker (a widespread pattern across the few languages displaying interrogative verbs with different thematic structures):

- |     |   |     |   |                    |
|-----|---|-----|---|--------------------|
| (6) | quni=pa=isu?<br>go.where=FUT=2.SG.ABS<br>‘Where are you going?’ | (7) | q<um>uni=isu<br><AV>do.what=2.SG.ABS<br>‘What were you doing just now?’ | tangi?<br>just.now |
|-----|---|-----|---|--------------------|

That is, when a language allows a question such as (8a), its LF will not be of the type in (8b) (roughly: “What type of eventuality are you participating at such that you are experiencing it or undergoing it or initiating it, etc?”) but the more precise (8c) (“what are you doing?”):

- (8) a. *Whxyzing* you?  
 b.  $*\exists e$  [\_\_\_\_(e, you) & ?(e)]  
 c.  $\exists e$  [Agent(e, you) & Action(e,?)]

**Further predictions:** This analysis makes a further prediction: the predication-*cum*-interrogation impossibility should be extendable to other analogous constructions whose semantic contribution is the introduction of a predicate of events. I will argue that this is in fact the case, as shown by the apparent cross-linguistic lack of interrogative adpositions or tense markers.

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