Q-particles and the nature of Covert movement: evidence from Bùlì

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Introduction: It is a well known fact that wh-questions in many languages may contain an in-situ wh-phrase. The nature of this wh-phrase, however, has been a contentious issue in the literature. While some have argued that the in-situ wh-phrase undergoes covert movement at LF (Aoun, Hornstein, and Sportiche, 1981; Huang, 1982; Nishigauchi, 1990; Pesetsky, 2000, Richards, 1997; 2000; Nissenbaum, 2000; Cable, 2007; 2010; Kotek, 2014; 2016), others have argued against this view (Watanabe 1992; Chomsky 1995; Reinhart 1998). A well-known puzzle for proponents of covert movement are the apparent differences in island-sensitivity between overt and covert movement — leading Huang (1982), for example, to propose that island-sensitivity is a property of S-structure or PF but not LF. The goal of this paper is to show that wh-questions in Bùlì provide strong arguments for covert movement of wh-in situ that eliminate the need to posit any overt/covert differences in island-sensitivity cross-linguistically. The key to this demonstration is the distribution of an overt Q-marker in Bùlì, and Bùlì's status as an in-situ language.

Data and Analysis: In Bùlì, wh-questions obligatorily include a Q-particle *ká* that obligatorily attaches to the *wh*-containing phrase (1a). In-situ wh-phrases are not clause bound, and may take matrix scope from an embedded clause (1b).

(1) a. Bí:ká   dìg   *(ká) b^{w}a:?
     child.DEF cook.PST   Q   what
     'What did the childe cook?'
    b. Fì   wèinì āyīn bí:ká   dìg   *(ká) b^{w}a:?
      2SG say.PST C   child.DEF cook.PST Q   what
      'What did you say the child cooked?

In analyzing this data, I adopt Cable's (2007;2010) theory of Q-particles in which overt "wh-movement" is actually overt QP-movement. I argue that *ká* is the Bùlì counterpart of Q-morpheme identified for languages such as Tlingit (Cable, 2007;2010), Sinhala and Japanese (Hagstrom, 1998; Kishimoto, 2005). In this analysis, *ká* (which subcategorizes for only DPs) merges with a wh-containing phrase and projects. I argue that the phrases head by *ká,* after agreeing with the complementizer, is interpreted by covertly moving to the Spec of C at LF as shown in (2).

(2) [$_{CP}$ [$_{QP}$ ~~ká b^{w}a~~] C [$_{TP}$ Bí:ká T   [$_{VP}$ dìg [$_{QP}$ ká b^{w}a]]]]

This analysis of the *ká*-phrase as involving covert movement correctly accounts for the data in (3) and (4) below. Although a wh-phrase may appear inside an island, attaching the Q-particle to the wh-phrase inside the island renders the construction ungrammatical (3a). The Q-particle must appear at the edge of the island (3b).

(3a) *Fì á-yā:lī   [núrpōk wāi   ālì dā   ká b^{w}a la:?]
     2SG IMPF-love woman REL.PRO INFL buy.PST Q what DET
     'You love the woman who bought what?'
(3b) Fì á-yā:lī   ká [núrpōk wāi   ālì dā   b^{w}a la:?]
     2SG IMPF-love Q woman REL.PRO INFL buy.PST what DET
     'You love the woman who bought what?'

Movement vs. non-movement in multiple questions: The absence of intervention effects can also diagnose covert movement of a *ká*-phrase (Beck, 2006; Cable, 2007; 2010; Kotek 2014;2016). Intervention occurs in a configuration where an in-situ wh-phrase is c-commanded by a focus sensitive element at LF. In-situ wh-phrases immediately preceded by *ká* are not subject to Intervention effects: wh-phrases are permitted under the c-command domain of focus-related elements like *only* and *negation* (4).

(4a) Bí:ká **àn** dìg   *(ká) bʷa:?   (4b) Bí:ká **ɲī:nī** dìg   *(ká) bʷa:?
    child.DEF NEG cook.PST Q what   child.DEF only cook.PST Q what
    'What did the childe not cook?'   'What did only the childe cook?'

Since, the sentences in (4) are grammatical, we conclude that the *ká*-phrase has covertly moved above the intervener, thus obviating intervention effects — just as overt movement obviates intervention effects in languages like Korean and German.

The behavior of wh-phrases without *ká* in a multiple question supports this line of reasoning. A question may contain at most one instance of *ká* (5a). In a multiple question, *ká* appears to the left of the highest wh-containing phrase(5b-c). This in our analysis means that there can be at most one instance of covert movement, the wh-phrase merged with *ká*. Other wh-phrase must be interpreted via focus alternatives (Beck 2006; Kotek 2014, 2016). We therefore predict intervention effects in a structure like (5b) when an intervener c-commands a *wh*-phrase without *ká*. This is indeed the case as shown in (5d). Although the *ká*-phrase can move covertly above the intervener in (5d) the second wh-phrase cannot, resulting in an intervention effect.

(5a) *John tè   *(ká) wāna *(ká) bʷa: b. John tè   *(ká) wāna bʷa:
    John give.PST Q who   Q what   John give.PST Q who what
    'Who did John give what'   'Who did John give what'
  c. *John tè   wāna *(ká) bʷa: d. *John àn   tè   *(ká) wāna bʷa:
    John give.PSt who   Q what   John NEG give.PST Q who what

Interactions with Binding Theory: Evidence from Binding Theory provides additional support for this analysis. An anaphor in an embedded in-situ wh-phrase may take as its antecedent a matrix DP (6a). In the absence of the wh-phrase (6b), the anaphor is not licensed. In example (6c), the non-initial *wh*-element that lacks *ká* fails to show long-distance binding, as predicted by the conclusions of the previous section.

(6a) Mary$_i$ wèinì   āyīn mì   á-yā: ká wà-dēk$_i$ fōtō   kūnā:?
    Mary say.PST C   1SG IMPF-like Q 3Sg-self picture which
   'Which picture of herself did Mary say that I like?'
(6b) *Mary wèinì   āyīn mì   á-yā: wà-dēk fōtō wá-dɛ́
    Mary say.PST C   1SG IMPF-like 3Sg-self picture DET-DEM
(6c)*Mary$_i$ wèinì   āyīn ká núr   bāmmā ālì   á-yā: wà-dēk$_i$ fōtō   kūnā:?
    Mary say.PST C   Q person which INFL IMPF-like 3Sg-self picture which

Overt movement? At first glance, Bùlì looks like it also permits overt wh-movement (7) — but this question-asking strategy, limited to root environments, strikingly fails to show reconstruction effects for principles A and C. I argue that this is in fact not overt wh-movement but another in-situ strategy available in root environments.

(7) (ká) bʷa ātì bí:ká dìgì:
    Q what C child.DEF cook
    ' what is that the child cooked?

I argue that constructions like (7) involve late merger of an NP complement to an operator which has moved from the gap position (Lebeaux 1988; Takahashi and Hulsey 2009; Stanton 2015).