Krachi Wh- In-Situ: A Question of Prosody

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Problem
In Krachi, an endangered and underdocumented Ghanian language, wh- expressions may either appear in situ or in left-peripheral focus positions.

(1)  a. Ṣʧɪ́ e-mò bwateo momo?  b. Bwateo momo jì Ṣʧɪ́ e-mò?
    woman AGR-kill.PST chicken which chicken which FOC woman AGR-kill.PST
    ‘Which chicken did the woman kill?’

This is true of all Krachi interrogatives, except why. Unlike other wh- expressions in the language, why may not appear clause-internally (2a-c). Instead, it must surface in the left periphery (2d).

(2)  a. Ṣʧɪ́ e-mò ne?
    woman AGR-kill.PST what
    ‘What did the woman kill?’

   b. Ṣʧɪ́ e-mò bwatéó nfré/kemeke/nene?
    woman AGR-kill chicken where/when/how
    ‘Where/when/how did the woman kill the chicken?’

   c. *Ṣʧɪ́ e-mò bwateo nání?
    woman AGR-kill.PST chicken why
    Nání jì Ṣʧɪ́ e-mò bwateo?
    ‘Why did the woman kill the chicken?’

   d. Ṣʧɪ́ e-mò bwateo?
    woman AGR-kill.PST chicken why
    Nání jì Ṣʧɪ́ e-mò bwateo?
    ‘Why did the woman kill the chicken?’

Similar asymmetries have been discovered in other languages (Italian [Rizzi 2001]; Korean [Ko 2005]; Persian [Karimi 2005]; Bakweri [Marlo & Odden 2007]; Zulu [Buell 2010]). Existing analyses tend to merely re-describe the facts in cartographic terms, rather than explain them. In this paper, we derive the distribution of Krachi why from the prosodic mapping of DPs in the language, drawing on Richards’ (2010) theory of wh in-situ.

Analysis
Richards (2010) proposes a universal PF well-formedness condition on wh- constructions: a wh- DP and its corresponding complementizer must phrase together prosodically. When syntax and prosody collaborate to build structures satisfying this condition, wh- movement is unnecessary and wh- in-situ obtains. When this phrasing cannot be achieved, wh- movement becomes obligatory, repositioning the interrogative closer to C for prosodic grouping. Two factors determine whether a wh- item can be phrased with its corresponding C independent of movement: 1) whether prosodic boundaries are mapped onto the left or right edges of wh- DPs and 2) the position of C. When a wh-’s prosodic boundary and its corresponding C are on opposite sides of the wh-, the required prosodic grouping can obtain, allowing for wh- in-situ. An example of this case would be a language that prosodically marks its DPs’ right edges and positions its complementizers before its clauses. By contrast, if a wh-’s prosodic boundary and its corresponding C fall on the same side of a DP, the requisite phrasing can obtain only if movement to the opposite side of C occurs. An example of this case would be a grammar that prosodically marks the left edge of DP and has initial complementizers.

We argue that the facts in (2) follow from a simple prosodic asymmetry: unlike all other interrogatives in the language, whose right edges mark prosodic boundaries, Krachi marks the left edge of why. Because Krachi has initial complementizers, all non-why interrogatives have their prosodic boundaries and corresponding Cs on opposite sides, obviating the need for movement (when Foc0 isn’t merged). In the case of why, these elements occur on the same (left) side of the interrogative, forcing movement.

Evidence
The Krachi DP’s right edge is generally marked as a prosodic boundary. The presence of this boundary is signaled by L%, which lowers F0 on lexical H-bearing items (3a,b). Pitch-track (3b) shows that the DP’s left edge isn’t marked. If it were, the preceding demonstrative’s F0 would be depressed, contrary to fact.

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Apart from why, all Krachi interrogatives are marked on the right. Evidence comes from the fact that all non-why interrogatives surface with L% ((4a) shows one example), while why surfaces as HH (4b).

Evidence that why’s left edge is marked comes from sluicing. Underlyingly H-bearing coordinators appearing before sluiced why surface with L tones.

Because why’s prosodic boundary and associated C appear to its left, the grammar must resort to movement. In order for why to phrase with C, the landing site of this movement must be higher than FocusP because it must precede null C in order to phrase with it on the right. This is correct: why, unlike other wh-operators, may precede focused peripheral constituents (5), another asymmetry illustrating that why is different.

(5) a. Nání bwater jí ñjíw e-mò?
    why chicken DET woman 3SG.SG-kill.PST
    ‘Why did the woman kill THE CHICKEN?’

b. *Nfré/kemekke/nene bwater jí ñjíw e-mò?
    where/when/how chicken DET woman 3SG.SG-kill.PST

References