Extraction and locality in Toba Batak

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Summary: I investigate patterns of preverbal extraction in Toba Batak (Austronesian; Indonesia). Contrary to previous descriptions, I show that simultaneous extraction of multiple constituents is grammatical, albeit in very limited configurations. This behavior is explained by (a) the availability of C and T with their traditional division of labor (*wh*/focus-probing by C and subject licensing and fronting by T) together with (b) the ability of bundling C and T on a single head (CT), probing for the joint satisfaction of their probes. Further evidence for this organization of C and T comes from the distribution of the particle *na* in two varieties of the language.

Background on Toba Batak: Toba Batak clauses are predicate-initial, with a two-way Austronesian "voice" alternation, here called ACT(IVE) and PASS(IVE), depending on the choice of "subject" DP (in **bold**). Note the PASSIVE agent is not demoted. (PN = proper name marker)

(1) Two ways to say 'Torus saw Ria.' (Schachter, 1984, p. 123):

a. **Mang**-ida si Ria **si Torus**.
ACT-see PN Ria PN Torus

b. **Di**-ida si Torus **si Ria**.
PASS-see PN Torus PN Ria

The subject can be topicalized, *wh*/focus-fronted, or relativized; in contrast, Schachter (1984) and Cole and Hermon (2008) show that non-subject DPs (PASS agents and ACT themes) cannot be moved. Non-DPs do not interact with voice. Toba Batak has no morphological case distinctions.

Possible multiple extractions: As noted by Cole and Hermon (2008), it is not possible to *wh*/focus-front one DP and also front another DP argument, regardless of the choice of voice (2).

(2) a. *wh*-O S V
* [*Aha*] [si Poltak] maN/di-tuhor?
what PN Poltak ACT/PASS-buy
Intended: 'What did Poltak buy?'

b. *wh*-S O V
* [*Ise*] [pinahan-on] mang/di-alang?
who pork-this ACT/PASS-eat
Intended: 'Who ate this pork?'

However, two DPs can be fronted if they are both formally focused—see the *wh* and *holan* 'only' DPs in (3). (Generally, Toba Batak allows both *wh* and *holan* 'only' in-situ, but both types of phrases strongly prefer to be fronted.) Such examples have never been documented before.

(3) a. *wh*-O *only*-S V:
✓ [*Aha*] [holan si Poltak] **mang**-alang?
what only PN Poltak ACT-eat
'What did only Poltak eat?'

b. *wh*-S *only*-O V:
✓ [*Ise*] [holan buku-on] **di**-jahar?
who only book-this PASS-read
'Who read only this book?'

Other choices of voice (PASS *di-* in (3a); ACT *maN-* in (3b)) are ungrammatical, reflecting that the immediately preverbal DP must be the subject. I assume the subject is highest in a lower domain (VoiceP) (Guilfoyle et al., 1992; Cole and Hermon, 2008, a.o.) and must be fronted first. Examples such as (3) are unpredicted by previous descriptions of Toba Batak and particularly problematic for Cole and Hermon (2008), who propose a VoiceP-fronting derivation for Toba Batak's verb-initial syntax, where non-subject DPs are necessarily frozen in the fronted VoiceP.

In contrast, *wh*-adjuncts and bare (non-focused) DPs can be simultaneously fronted (4), cf (2).

(4) a. *wh*-nonDP S V O:
✓ [*Andigan*] [si P.] **maN**-tuhor buku?
when PN P. ACT-buy book
'When did P. buy a book?'

b. *wh*-nonDP O V S:
✓ [*Andigan*] [buku-i] **di**-tuhor si P.?
when book-that PASS-buy PN P.
'When did P. buy the book?'

(*Wh*-nonDPs such as *andigan* 'when' can also be in-situ.) Other logically possible configurations of multiple extractions, many of which are ungrammatical, will be presented in the talk.

Proposal: C carries a [uFOC] probe which attracts *wh-* and *only*-phrases; T carries a [uD] probe which can Case-license a DP and optionally attract it. C and T can be separate heads or a bundled head, CT, which probes *together* for a [FOC,D] target. Example (3) is the result of CT attracting multiple [FOC,D] targets. CT can reproject to host multiple specifiers (evidence for reprojection below). In example (4), C and T are used, separately attracting [FOC] and [D] targets. In the ungrammatical (2), there is a [FOC,D] target but the non-focused subject DP is higher in VoiceP and triggers defective intervention; separate C and T can attract the subject by T and *wh*-DP by C, but C alone fails to Case-license the *wh*-DP. (See below on the role of Case.)

In the talk, I will discuss the calculus of probe bundling, demonstrating that features of the bundled CT probe are inherited from the probes on C and T.

***Na* in two idiolects:** The (semantically-inert) particle *na* occurs in the left periphery but with some speaker variation; here are two internally-consistent varieties. In both, *na* is possible after *wh*/focus-fronted DPs (5a), including after two fronted *wh*/*only*-DPs simultaneously, using reprojection of CT (5b), in e.g. (2). When a non-DP *wh* is fronted, three speakers allows *na* (6a) but one does not (7a); when a non-DP *wh* is fronted with a non-focused DP, as in (4), the former three allow *na* after the DP (6b), but the latter one does not allow *na* anywhere (7b).

(5) Both varieties: a. *wh/only*-DP (✓na) V... b. *wh*-DP (✓na) *only*-DP (✓na) V...

(6) [T] ↔ *na*: a. *wh*-nonDP (✓na) V... b. *wh*-nonDP (*na) DP (✓na) V...

(7) [CT] ↔ *na*: a. *wh*-nonDP (*na) V... b. *wh*-nonDP (*na) DP (*na) V...

These patterns are neatly captured if *na* spells out [T] (including CT) for three speakers but specifically the unsplit [CT] for the other speaker. This further supports the idea of optional C-T bundling (Legate, 2011; Martinović, 2015) and of CT reprojection (see Watanabe, 1992, a.o.).

The role of Case: Schachter (1984) and Cole and Hermon (2008) show that postverbal non-subject DPs must be verb-adjacent; no argument or adjunct may intervene. Emmorey (1984) furthermore shows that postverbal non-subject DPs form a phonological unit with the preceding verb for purposes of stress assignment. I explain this as a reflex of nominal-licensing (Case).

I follow the proposal of Erlewine, Levin, and Van Urk (to appear) that the subject DP is Case-licensed by a peripheral probe (T or CT) in Austronesian voice systems. I furthermore propose that there are no Case-licensers within VoiceP. Postverbal non-subject DPs must be licensed through adjacency and morphological merger with the verb (Levin, 2015), explaining verb-adjacency effects. In contrast, Cole and Hermon (2008) explains this strict adjacency as a reflex of the non-subject being stranded in the VoiceP projection which fronts with the verb and freezes. But the availability of grammatical multiple DP extractions (3) shows that non-subject DPs are *not* frozen postverbally, as long as they have an independent source of Case-licensing.

References: Cole and Hermon 2008. VP raising in a VOS language, *Syntax* 11 • The intonation system of Toba Batak, in *Studies in the structure of Toba Batak* • Erlewine, Levin, and Van Urk to appear. Ergativity and Austronesian-type voice systems, in *Oxford Handbook of Ergativity*. • Guilfoyle, Hung, and Travis 1992. Spec of IP and Spec of VP, *NLLT* 10 • Levin 2015. *Licensing without case*. MIT dissertation • Martinović 2015. *Feature geometry and head-splitting*. University of Chicago dissertation • Schachter 1984. Semantic-role-based syntax in Toba Batak, in *Studies in the structure of Toba Batak* • Watanabe 1992. *Wh*-in-situ, subjacency, and chain formation. *MIT Occasional Papers in Linguistics* 2