

An in-situ syntax of sluicing in Indonesian: Implications for interface economy conditions

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This paper proposes an in-situ analysis of sluicing proposed by Kimura (2010), as further articulated by Abe and Hornstein (20012), for Indonesian sluicing whereby deletion deletes all TP-internal materials except the in-situ *wh*-phrase as an alternative to the now conventional *wh*-movement +ellipsis analysis adopted in the field (Merchant 2001). The analysis not only provides a simple, unified explanation for otherwise recalcitrant properties of Indonesian sluicing, but also has a number of significant theoretical implications for elliptical repair and interface economy. Under the in-situ theory of sluicing, (1), for example, is analyzed as in (2). I assume, following Cole et al. (1999), that nominal *wh*-questions have the headless relative clause structure with optional *wh*-movement into [Spec, CP], an assumption which has been independently motivated.

(1) Esti mem-beli sesuatu yang mahal di sini, tapi saya tidak ingat apa.
 Esti AV-buy something COMP expensive in here but I NEG remember what
 ‘Esti bought something expensive here, but I don’t remember what.’

(2) ... tidak ingat [CP <apa> C_Q [_{TP} [_{NP} ~~Ø~~] [_{CP} [_{OP} Esti beli t_j]]] BE apa]]

Assume an economy condition at the syntax-phonology interface that the head of a chain cannot be pronounced unless it has PF effects. This condition requires that only the bottom copy in (2) be required for PF-interface conditions. TP-ellipsis then applies deleting everything except that copy.

The in-situ analysis provides a straightforward explanation for a wide range of properties of Indonesian sluicing. First, Fortin (2007, 2009) observes that the question particle *-kah* can occur with a moved *wh*-phrase, but not with an in-situ *wh*-phrase, as shown in (3). Given this observation, (4) indicates that the *wh*-sluice remains in-situ, as predicted by our in-situ theory of syntax. The observed distribution of *-kah* would remain mysterious if the *wh*-phrase in (4) underwent *wh*-movement along the lines of Merchant’s (2001) analysis.

(3)a. **Apa(-kah)** yang Ali beli? (*wh*-ex-situ) b. Ali mem-beli **apa(*-kah)** (*wh*-in-situ)
 what-Q COMP Ali buy Ali AV-buy what-Q
 ‘What did Ali buy?’ ‘What did Ali buy?’ (Fortin 2007a:56)

(4) Ada seseorang yang me-nelepon tadi ... coba tebak siapa(*-kah)
 exist someone COMP AV-phone just.now try guess who-Q
 ‘Someone phoned just now ... try to guess who!’ (Fortin 2007a:207, 208)

Second, it is well known in the Indonesian literature (Cole and Hermon 1998, 2000) that nominal and locative *wh*-phrases such as *apa* ‘what’ and *di mana* ‘in which place’ can be interpreted in situ by unslective binding (Tsai 1994; Reinhart 1997), unlike adverbial *wh*-phrases such as *kenapa* ‘why’, which must undergo syntactic movement to [Spec, CP] for interrogative interpretation. Given this observation, the analysis predicts that the former should not exhibit island effects under sluicing whereas the latter should do so. The contrast between (5) and (6) shows that this prediction is indeed borne out.

(5) David mau bertemu peneliti yang berkerja di negara tertentu tapi saya
 David want meet researcher COMP work in country certain but I
 sudah lupa {**di negara mana/negara mana**}.
 already forget in country which country which
 ‘David wants to meet the researcher who works in a certain country, but I already forgot which country.’

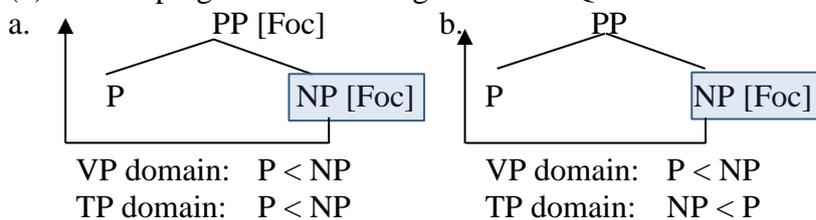
(6)* David mau bertemu peneliti yang bekerja di Bali untuk alasan akademik,
 David want meet researcher COMP work in Bali for reason academic
 tapi saya sudah lupa **kenapa**.
 but I already forget why
 ‘David wants to meet the researcher who works in Bali for some academic reason, but I already forgot why.’

Third, as first noted by Fortin (2007), Indonesian prohibits P-stranding under *wh*-questions, but allows it under sluicing, as in (7), in violation of Merchant’s famous P-stranding Generalization.

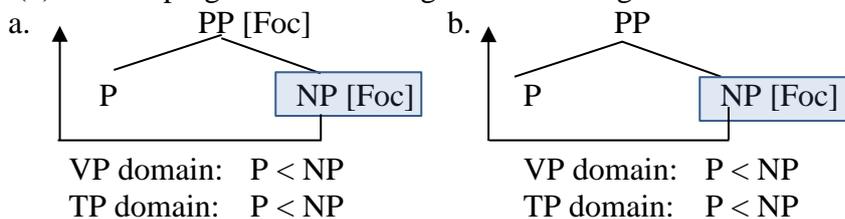
- (7)a. ***Siapa** yang kamu berdansa dengan? b. **Dengan siapa** kamu berdansa?
 who COMP you dance with with who you dance
 ‘Who did you dance with?’ ‘With whom did you dance?’
- c. Saya ingat Ali berdansa dengan seseorang, tapi saya tidak tahu (**dengan**) siapa.
 I remember Ali dance with someone but I NEG know with who
 ‘I remember Ali danced with someone, but I don’t know (with) who.’ (Sato 2011:343)

Let us assume, following Chomsky (1972), that P-stranding is implemented in terms of percolation of the focus- (or *wh*-) feature of the *wh*-phrase onto the PP: P-stranding obtains when percolation does not occur whereas pied-piping takes place when it does. Drawing on Fox and Pesetsky’s (2005) cyclic linearization, I suggest that the ordering instructions obtained at each Spell-Out domain (VP and TP) must be consistent for the derivation to converge. Under this theory, (8a), but not (8b), converges, thereby yielding the P-stranding ban under *wh*-questions. Now, (7c) shows that there is no ordering conflict in its derivation in (9b). The in-situ theory ensures this result since the *wh*-phrase remains in situ under sluicing due to the afore-mentioned interface economy condition.

(8) Pied-Piping and P-Stranding under *Wh*-Questions



(9) Pied-Piping and P-Stranding under Sluicing



I will further extend the in-situ syntax to multiple sluicing in Indonesian, a construction which has heretofore yet been described, much less analyzed, in the relevant literature. I will show that the analysis not only correctly predicts that this construction exhibits the same behavior as single sluicing with respect to island-sensitivity and P-stranding, but also allows us to uncover the new observation that two *wh*-remnants do not belong to the same clause. I will show that this observation, as well as the P-stranding possibility with the second *wh*-remnant, critically supports my analysis over Lasnik’s (2014) alternative analysis of multiple sluicing in English which involves leftward as well as additional rightward movement for the two *wh*-remnants.

The in-situ syntax of sluicing has important implications for sluicing and interface conditions. First, it affords the simplest possible account of island-sensitivity: there is no island effect because there is no movement (Chung et al. 1995). The analysis implies that no repair mechanism is warranted to accommodate island-insensitivity. Second, the in-situ analysis of sluicing is enforced by two interface conditions. One prohibits strong-vacuous movement whereas the other allows nominal, but not adverbial *wh*-phrases, to be interpreted in situ at LF. The beauty of the analysis is that the interaction of these conditions with Indonesian grammar provides a fully deterministic derivation for its sluicing. The analysis thus substantiates the minimalist guideline that syntactic computation takes place to meet legibility conditions imposed by language-external systems.

Selected References [1] Cole, P. & G. Hermon. 1998. The typology of *wh*-movement. *Syntax* 1. [2] Fortin, C. 2007. *Indonesian sluicing and verb phrase ellipsis*. Ph.D. diss, U Michigan. [3] Kimura, H. 2010. A *wh*-in-situ strategy for sluicing. *English Linguistics* 27. [4] Merchant, J. 2001. *The syntax of silence*. Oxford: OUP. [5] Sato, Y. 2010. *Minimalist interfaces*. John Benjamins.