P-Stranding and Repair: Why is Indonesian (Not) so Special?1

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1. Introduction

- present data that Bahasa Indonesian/BI poses a counterexample to Merchant’s (2001) Preposition-Stranding Generalization/PSG

  - sluicing in BI = wh-movement plus TP deletion as in English
  - sluicing in BI ≠ pseudosluicing/elliptical clefts; Cheng 1991 & Cole et al. to appear


  - percolation of [+wh] onto PPs (Chomsky 1972)
  - D-P coalescence as syntactic incorporation of D into P (Law 1998; van Riemsdijk 1998)

Table 1: Parametric-Theory of P-Stranding at the Syntax-Phonology Interface

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<th>Parameters</th>
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- syntax is not entirely crash-proof; to err is syntax, to repair is interface but still syntax rules.

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1 This paper was presented at the 34th Annual Meeting of the Berkeley Linguistics Society. The core observation here was independently made around the same time by Cati Fortin at her LSA talk in Anaheim, CA in January 2007. I thank Cati for sharing her observations and useful exchange of ideas. I also thank Heidi Harley, Cedric Boeckx, Noam Chomsky, Andy Barss, Andrew Carnie, Sandy Chung, Simin Karimi, Dave Medeiros, Jason Merchant, and Jeff Punske for comments. Thanks also go to Simin Karimi, Adam Usnishkin, Myriam Bouveret, and Sumayya Racy with their help on Persian/Hebrew/French examples. *terima kasih banyak-banyak* to Dwi Hesti Yuliani for data, judgments, and encouragement. All errors are mine.
2. Sluicing in Bahasa Indonesia

2.1. P-Stranding under Sluicing in a Language without P-stranding

Merchant (2001), following Ross (1969), analyzes sluicing as wh-movement in syntax followed by TP deletion at PF. One strong piece of evidence for this analysis comes from the PSG in (1):

(1) Preposition-Stranding Generalization (Merchant 2001: 92)

A language $L$ will allow preposition stranding under sluicing iff $L$ allows preposition stranding under regular wh-movement.

(2) a. Who was he talking with?
   b. Peter was talking with someone, but I don’t know (with) who. (Merchant 2001: 92)

(3) a. *Qui est-ce qu’elle l’a offert à? ‘Whom has she offered it to?’
   who Q she it-has offered to
   b. À qui l’a-t-elle offert? ‘To whom has she offered it?’
   to whom it-has-she offered
   c. Anne l’a offert à quelqu’un, mais je ne sais pas *à qui. ‘Anne has offered it to someone, but I don’t know to whom.’
   Anne it-has offered to someone but I Neg know not to whom

→ BI presents itself as counterexample to the PSG.2

(4) a. *Siapa yang kamu ber-danca dengan? ‘Whom did you dance with?’
   who that you vZ-dance with
   b. Dengan siapa kamu ber-danca? ‘With whom did she dance with?’
   with who you vZ-dance
   c. Saya ingat Hasan ber-danca dengan seseorang tapi saya tidak tahu (dengan) siapa. ‘I remember Hasan danced with someone, but I don’t know (with) whom.’
   I remember Hasan VZ-dance with someone but I Neg know (with) who

2 BI is known to have the P-drop option for certain prepositions such as tentang ‘about’, as illustrated in (i).

(i) Saya ingat Hasan bicara (tentang) sesuatu tapi saya tidak tahu apa.
   I remember Hasan talk about something but I Neg know what
   ‘I remember that Hasan talked about something, but I don’t know what.’

Crucially, however, this option is not available for prepositions such as dengan ‘with’ in the antecedent clause of (4c).
2.2. *Sluicing in Indonesian ≠ Pseudosluicing?*

Merchant’s (2001) operational tests to distinguish between sluicing and pseudosluicing/elliptical clefts.

<table>
<thead>
<tr>
<th>Diagnostics</th>
<th>Attested in sluices?</th>
<th>Attested in Non-Elliptical Wh-Clefts?</th>
<th>Attested in Non-Elliptical Wh-Questions?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Indonesian</td>
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</tr>
<tr>
<td>adjuncts</td>
<td>√</td>
<td>√</td>
<td>X</td>
</tr>
<tr>
<td>implicit arguments</td>
<td>√</td>
<td>√</td>
<td>X</td>
</tr>
<tr>
<td>‘mention-some’ mod</td>
<td>√</td>
<td>√</td>
<td>X</td>
</tr>
<tr>
<td>‘mention-all’ mod</td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>‘else’ mod</td>
<td>√</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>attributive adjectives</td>
<td>√</td>
<td>√</td>
<td>X</td>
</tr>
</tbody>
</table>

(Fortin 2007: 206)

These tests are developed for English-type languages, hence not necessarily transportable to investigate the underlying syntax of *wh*-questions in BI. Thus, I return to BI-internal evidence that would show that BI has *wh*-movement of the English-type.

2.3. *Sluicing in Indonesian ≠ Pseudosluicing*

**Cheng (1991):**

*Wh*-question in BI is a reduced cleft (without copula and expletive subject)

(5) a. Apa i yang kamu beli ti? ‘What did you buy?’
    what that you buy

b. [CP apa i [CP Op i yang [IP kamu beli ti]]]
The Distribution of the Q-marker -kah suggests that sluicing is not derived by clefting.

(6) Ada seseorang yang menelpon tadi .... exist someone that AV-phone just now

a. coba tebak siapa(\textbf{kah}) itu! (clefting)
   try guess wh-Q Dem
   ‘try to guess who it was!’

b. coba tebak siapa(\textbf{*kah}) ! (sluicing)
   try guess who-Q
   ‘Try to guess who!’

c. coba tebak siapa(\textbf{*kah}) yang menelpon tadi! (wh-question)
   try guess who-Q that AV-phone just now

\begin{itemize}
  \item [\textit{(Fortin 2007: 207, 208)}]
\end{itemize}

\textbf{Cole et al. (to appear)}:

\textit{Wh}-question in Malay with yang is a headless relative clause.

(7) a. Apa yang kamu beli \textit{ti}? ‘What did you buy?’ (=5a)
   what that you buy

b. \begin{itemize}
  \item [\textit{(modified from Cole et al. to appear: 4)}]
\end{itemize}
Evidence: Restrictions on the Distribution of *yang* in Questions

Questions without *yang* can be formed using the full range of question words...in contrast, when the question is formed with *yang*...only questions with *apa* ‘what’ and *siapa* ‘who’ are well-formed.

(8) a. *Apa* yang di-baiki Ali?  d. ?? *Bagaimana* yang Ali baiki kereta itu?
    what that Pass-fix Ali how that Ali fix car that
    ‘What was fixed by Ali?’ ‘How did Ali fix that car?’

b. *Siapa* yang nampak kau?  e. ?? *Kenapa* yang Ali di-pecat?
    who that see you why that Ali Pass-fire
    ‘Who saw you?’ ‘Why is it that Ali was fired?’

c. ?? *Di mana* yang kau tinggal?
    at where that you live
    ‘Where do you live?’

(Cole et al. to appear: 6, 7)

(9) * 

headless relative clause BE \{ PP, AdvP \}

(Cole et al. to appear: 27)

(10) a. ?? Yang aku tinggal (ialah) *di K.L.*
    that I stay is at K.L.
    ‘The place that I live is in K.L.’

b. ?? Yang Ali baiki kereta itu (ialah) *dengan alat-nya.*
    that Ali fix car that is with tool-his
    ‘The way that Ali fixed that car is with his tool.’

c. ?? Yang Ali di-pecat (ialah) *kerana dia cuai.*
    that Ali Pass-fire is because he careless
    ‘Why Ali was fired is because he was careless.’

d. Yang aku makan *nasi goring* (-lah).
    that I eat rice fried-focus
    ‘Fried rice is what I am eating.’

e. Yang kau nampak *Siti* (-lah).
    that you see Siti-focus
    ‘Siti is what you see.’

(Cole et al. to appear: 9)
The lack of yang in wh-questions with PPs suggests that they are not derived by headless relative clauses.

Cole et al. (to appear: 26)

“There is no potentially plausible relative clause source for adjunct WH questions.”

(11) a. Bila Maryam fikir [yang Ali akan datang ke sini ti]?
   when Maryam think that Ali will come to here
   ‘When does Miriam think that Ali will come here?’

b. Kenapa Siti kata [yang Fatimah beli ikan itu ti]?
   why Siti say that Fatimah buy fish that
   ‘Why did Siti say that Fatimah bought that fish?’

c. ?? Di mana yang kau tinggal? (=8c)
   at where that you live

The examples in (11a-c) cannot be derived from a headless relative clause of the form in (12) due to the restriction in (9).

(12) * \[
\left( +WH \right) \left\{ +\text{Adv} \right\} \left[ \text{headless relative clause BE } [t] \right] \] (Cole et al. to appear: 27)

3. P-Stranding under Sluicing and Interface Repair: Why Indonesian Is (Not) Special

3.1. Theoretical Assumptions:

- percolation of the [+wh] feature of the D/N onto the PP (Chomsky 1972; Stepanov 1999)
- D-P coalescence as syntactic incorporation of D into P (Law 1998; van Riemsdijk 1998)
- A-over-A principle or some modern minimality constraint on attraction (Chomsky 1964, Ross 1967)
➢ [+wh] feature percolation (Chomsky 1972)

Postal (1972): Preposition Dangle Argument

In English, prepositions cannot be stranded in intermediate specifiers of CPs

(13) a. I believe Mary thinks Joan talked to someone.
    b. Who do you believe Mary thinks Joan talked to?
    c. To whom do you believe Mary thinks Joan talked?
    d. *Who/Whom do you believe to Mary thinks Joan talked?
    e. *Who/whom do you believe Mary thinks to Joan talked? (Postal 1972: 213)

➢ D-P coalescence as syntactic incorporation of D into P in the syntax

In Romance languages, P sometimes coalesces with the following D into a suppletive form.

(14) Jean a parlé du sujet le plus difficile. (French)
    Jean have talked about-the subject the most difficult
    ‘Jean talked about the most difficult subject.’

    suppletive forms: du = de le, des = de les, duquel = de lequel, à les = aux, à le = au,
    desquels = de lesquels ‘of the’, à lequel = auquel, à lesquels = auxquels ‘to the’
    (Law 1998: 226)

(15) Gianni ha parlato del soggetto più difficile. (Italian)
    Gianni have talked about-the subject most difficult
    ‘Gianni talked about the most difficult subject.’

    suppletive forms: al = a il, alla = a la ‘to the’, sul = su il, sulla = su la ‘on the’, nel = in il,
    nei = in i ‘in the’, del = di il, dello = di lo ‘of the’, col = con il ‘with the’
    (Law 1998: 226)

(16) Syntactic Constraint on Suppletion (Law 1998: 22; see also van Riemsdijk 1998: 639)
    Elements undergoing suppletive rules must form a syntactic unit X0.

(17) a. Je lui ai demandé [CP de le/*du lire] ‘I asked him to read it.’
    b. Nous sommes prêt [CP à le/*au faire] ‘We are ready to do it.’
    (Law 1998: 227, 228)
3.2. *A New Typology of P-Stranding under Sluicing: Interface Strategies*

Table 3: The Parametric-Theory of P-Stranding at the Syntax-Phonology Interface

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**English**

(18) a.

```
  C
    ⋯
    PP
      P
      DP [+wh]
```

no feature percolation ⇒ yields P-stranding

b.

```
  C
    ⋯
    PP [+wh]
      P
      DP
```

feature percolation ⇒ yields pied-piping

**Indonesian**

(19) a.

```
  C
    ⋯
    PP [+wh]*
      P
      NP
```

feature percolation ⇒ disallows P-stranding

under *wh*-movement

b.

```
  C
    ⋯
    PP [+wh]*
      P
      NP
```

feature percolation ⇒ allows

minimality violation

P-stranding

INTERFACE REPAIR

under sluicing
3.3. New Predictions

If the minimality violation resides in the PP, then deletion of smaller categories than TP should also ameliorate the P-stranding violation in this language but should not do so in French. This prediction is indeed correct.³


(21) a. Esti ber-danca dengan Fernando dan Hasan [PP dengan Rifi]i [VP ber-danca tì].
Esti Vz-dance with Fernando and Hasan with Rifi
‘Esti danced with Fernando, and Hasan (danced) with Rifi.’

b. Esti ber-danca dengan Fernando dan Hasan [DP Rifi]i [VP ber-danca dengan tì].
Esti Vz-dance with Fernando and Hasan Rifi
‘Esti danced with Fernando, and Hasan (danced with) Rifi.’

(22) a. Jean a danse avec Marie et Robert [PP avec Suzanne]i [VP danse tì].
Jean has danced with Marie and Robert with Suzanne
‘Jean has danced with Marie, and Robert (danced) with Suzanne.’

b. * Jean a danse avec Marie et Robert [DP Suzanne]i [VP danse avec tì].
Jean has danced with Marie and Robert Suzanne
‘Jean has danced with Marie, and Robert (danced with) Suzanne.’

³ Thanks to Heidi Harley (personal communication) for pointing this out and Sumayya Racy (personal communication) and Myriam Bouveret (personal communication) for their help and/or judgments regarding the examples in (22a, b).
3.4. Fortin’s (2007) LF Copy + Agree Analysis

- Copying of the antecedent TP into the sluiced clause via sideward movement (Chung et al. 1995)
- There is agreement between the wh-phrase, the interrogative Q, and the indefinite.
- The syntactic category of the wh-phrase delimits the syntactic category of the goal that C agrees with.

(23) Pak Guru ber-bicara dengan seseorang, tapi saya tidak tahu siapa.
Mr. teacher Vz-speak with someone but I Neg know who
‘Pak Guru spoke to someone, but I don’t know who.’

(Fortin 2007: 326)

(24) CP
   siapa C’
   [+Q] [+wh] C TP
   [uQ] Pak Guru T’
   T[Past] vP
   Pak Guru v’
   ber-bicara VP
   Agree
   ber-bicara PP
   dengan DP [+wh] (no[+wh] feature percolation)
   seseorang [-Q]

(Fortin 2007: 327)
There are several empirical problems with Fortin’s analysis that are successfully overcome under the present deletion analysis; see Sato (forthcoming) for detailed discussion on this point.

- Feature percolation is not sufficiently constrained; why is P-stranding not allowed in non-elliptical wh-questions in BI as in (4a)?

  ⇒ [+wh] feature does not have to percolate in BI only when there is deletion at PF.

- Given that [Spec, CP] is not a case position, there is no way in which the Case of the wh-phrase get checked; [Spec, CP] is not in the c-command domain of any case-valuing/checking probe such as v/T

  ⇒ wh-remnants undergo regular wh-movement from their base position into [Spec, CP].
4. Concluding Remarks and Residual Questions

Summary of the Paper:

- sluicing in BI as counterexample to Merchant’s PSG.
- a new analysis of P-stranding that employ a set of independently motivated assumptions
  - repair at the syntax-phonology interface
  - percolation of the [+wh] feature from N to P
  - the minimality constraint on movement/attraction

Residual Questions:

Q1: Even in English, there are some prepositions that do not conform to the PSG (Chung et al. 1995, Fortin 2007, and sources cited therein). Why is that?

(27)  
  b. *Which city did you sleep in your bed in?   (Hornstein and Weinberg 1981: 88)

(28)  
  a. John spoke to Bill after some meal, but I don’t remember which (meal).  
  b. Pat slept in her own bed in some city, but I don’t know which (city). (Fortin 2007: 215, 216)

In other words, what property of prepositions makes English sometimes behave like Indonesian?

Q2: The present analysis predicts that other languages with the following properties should be systematic counterexamples to the PSG.

1. no have D-P coalescence (hence no syntactic D-P incorporation) or no determiner projections
2. wh-movement

Javanese, another Malayo-Polynesian language closely related to BI (Sato forthcoming)
References


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