The Preposition Stranding Generalization and Conditions on Sluicing: Evidence from Emirati Arabic

Tommi Leung
United Arab Emirates University

Merchant (2001) argues that sluicing is derived by IP-deletion from an underlying wh-construction at the level of PF (following Ross 1969), as shown in (1):

(1)  a. Jack bought something, but I don’t know \([\text{CP} \, \text{what}, \, [\text{IP} \, \text{Jack} \, \text{bought} \, \text{t}]]\).
    b. Jack talked to someone, but I don’t know \([\text{CP} \, \text{who}, \, [\text{IP} \, \text{Jack} \, \text{talked} \, \text{to} \, \text{t}]]\).

Merchant proposes (2) to capture the parallelism between sluicing and wh-questions:

(2) Preposition-stranding generalization (PSG)

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

The PSG is demonstrated in (1b) in which the wh-slice ‘who’ leaves a stranded preposition under sluicing, which corresponds to the fact that English is a P-stranding language. Merchant further demonstrates the descriptive power of the PSG by verifying its applicability to more than twenty languages. Examples drawn from other languages continue to confirm its validity (e.g. Almeida and Yoshida 2007, Stjepanović 2008, Rodrigues, Nevins and Vicente 2009, Van Craenenbroeck 2010). In this squib, I investigate Emirati Arabic (henceforth EA) in detail and argue that it provides cases in which the PSG can be falsified. In EA, while P-stranding is banned in wh-questions, sluicing is possible even when the underlying structure would contain a stranded
preposition, e.g.:

(3) John ʃərab  gahwa [wija  had],  bas  maa  ᵇərf  [mənu
John drank coffee with someone but not 1.know who
John ʃərab-  gahwa [wija  t₁]].
John drank coffee with
‘John drank coffee with someone, but I don’t know who.’

Potential counterexamples to PSG have been adduced from other languages, yet further
analyses reveal that they do not involve P-stranding by wh-movement (e.g. Brazilian
Portuguese, French (Rodrigues, Nevins and Vicente 2009), Serbo-Croatian (Stjepanović
2008)). At first glance EA might seem to be one such case since it possesses two types of
wh-constructions, namely *wh-fronting* (a movement construction) and *wh-clefts* (a
non-movement construction). For the sake of uniformity, I call the elliptical
wh-construction formed by wh-fronting ‘sluicing’, and the one formed by wh-clefts
‘pseudosluicing’ (Merchant 2001). Several claims are defended in this paper. First, EA
allows both sluicing and pseudosluicing. Second, sluicing and pseudosluicing are
distinguished by individual lexical and morphosyntactic properties on the one hand, and
the syntactic projection of the antecedent clause on the other hand. Third, I argue that the
PSG is falsified even though both sluicing and pseudosluicing are at work. Lastly, I
propose that in order to preserve the original insight of the PSG, its statement should be modified so that for languages in which the P-stranding constraint is defined at the level of PF, violations can be rescued by sluicing as a result of PF-deletion. That is to say, any language which parametricizes the P-stranding constraint under wh-movement as a PF-condition can salvage P-stranding violation via sluicing as PF-deletion.

1. Two types of wh-constructions in Emirati Arabic

EA possesses two types of wh-questions, namely *wh-fronting* (4a) and *wh-clefts* (4b): ¹

(4) a. ꞌuu ꞌt̿ar̿-eet ꞌt ꞌms?
    what bought-2SM yesterday
    ‘What did you buy yesterday?’

  b. ꞌuu ꞌ(hu) ꞌelli ꞌt̿ar̿-eet-ah ꞌms?
    what 3SM that bought-2SM-3SM yesterday
    ‘What was it that you bought (it) yesterday?’

The two wh-constructions have been documented in various Arabic dialects (e.g. Wahba 1984, Shlonsky 1997, 2002, Aoun, Benmamoun and Choueiri 2010). Wh-fronting leaves a movement gap (i.e. ꞌt in (4a)), whereas wh-clefts are a non-movement type of wh-dependency which requires a resumptive pronoun (e.g. –ah in (4b)) at the base position, along with the relative complementizer ꞌelli ‘that’. ² Moreover, wh-clefts allow an optional copular pronoun *hu* (as in (4b)) which signals a cleft structure (Eid 1983). ³ Wh-fronting is more productive than wh-clefts in that the former co-occurs with any type of wh-expression, e.g. wh-words and wh-phrases (4, 5a), including wh-PPs (5c), as well
as wh-arguments and wh-adjuncts (5b). P-stranding by wh-movement is strictly ungrammatical (5d). On the other hand, wh-clefts only allow the use of bare wh-words and wh-arguments (4b). They strictly ban the use of *which*-NPs (6a), wh-adjuncts (6b) and wh-PPs (6c):

(5)  a.  ?aj kitab  jtər-et  ?ms?
    which book  bought-2SM  yesterday
    ‘Which book did you buy yesterday?’

   b.  kə̞f xal'as-t  əl-wadʒāb?
    how  finished-2SM  the-assignment
    ‘How did you finish the assignment?’

   c.  f-?aj mokaan  laag-et  John?
    at-which place  met-2SM  John
    ‘At which place did you meet John?’

   d.  *?aj mokaan  laag-et  John  fi ?
    which place  met-2SM  John  at
    ‘Which place did you meet John at?’

(6)  a.  *?aj kitab  (hu)  ġlli  jtər-et-ah  ?ms?
    which book  3SM  that bought-2SM  -3SM  yesterday
    ‘Which book is it that you bought yesterday?’

   b.  *kə̞f  (hu)  ġlli  j-xallasį  John  fi-ha  əl-wadʒāb?
    how  3 SM  that  3SM-finish  John  in-3SM  the-assignment
‘How is it that John finishes the assignment?’

(7) a. John ḥrab ḥaj, bōs maa ẓərf [ʃuː (hu)].
   John drank something but not 1.know what 3SM
   ‘John drank something, but I don’t know what.’

b. John laaga Mary, bōs maa ẓərf [kərəf (*hu)].
   John met Mary but not 1.know how 3SM
   ‘John met Mary, but I don’t know how.’

c. John jafroḥ xamər, bōs maa ẓərf [ʔaj noooʃ (*hu)].
   John drink alcohol but not 1.know which kind 3SM
   ‘John drinks alcohol, but I don’t know which kind.’

d. John jafroḥ xamər, bōs maa ẓərf [wiʃja muʃə (*hu)].

These distinctions will be crucial in identifying the underlying source of sluicing/pseudosluicing.

2. Emirati Arabic sluicing and pseudosluicing

Given the two types of wh-constructions, we can distinguish the use of a *wh-sluice* (as derived by wh-fronting) and a *wh-pseudosluice* (as derived by wh-clefts). The examples in (7) show that any type of wh-expression can form a bare wh-sluice. The use of a wh-pseudosluice, signaled by the copular pronoun *hu*, is grammatical in limited cases (e.g. 7a):\(^4\)
John drinks alcohol but not 1. know with who

‘John drinks alcohol, but I don’t know with who.’

Given the distinctive properties of wh-fronting and wh-clefs as listed above, we can immediately identify the underlying source of some of the instances of sluicing in (7). For instance, since wh-adjuncts (e.g. *keif ‘how’), which-NPs (e.g. *?aj noo ‘which kind’) and wh-PPs (e.g. *wijja m?en ‘with who’) can only be used in wh-fronting (see 5a-c), the underlying source of (7b-d) must be wh-fronting. This is further confirmed by the ungrammaticality of the use of wh-pseudosluice in expressions such as *keif hu ‘how is it’, *?aj noo hu ‘which kind is it’, and *wijja m?en hu ‘with who is it’. The use of a bare wh-expression fiuu ‘what’ in (7a), however, does not provide us with a clear indication of its underlying source. (7a) can either be a case of wh-sluice, or wh-pseudosluice in which the copular pronoun hu is deleted, as shown in (8):


John drank something but not 1. know what

‘John drank something, but I don’t know what it is.’

As a result, argument wh-NPs such as fiuu ‘what’ or m?en ‘who’ do not give a clear identification of the sluicing source.

3. Falsifying the Preposition Stranding Generalization

Given the distinction between sluicing (formed by wh-fronting) and pseudosluicing (formed by wh-clefting), we look at the PSG again. Example (3) neither supports nor falsifies the PSG since bare wh-NPs (e.g. fiuu ‘what’ and m?en ‘who’) can be cases of either wh-sluicing or wh-pseudosluicing. Now consider the examples in (9) which are
more convincing:

(9) a. John ḥar gahwa [wijja ᵐ adiq], bās maa ṣərf [ʔaj ᵐ adiq].
John drank coffee with friend but not I know which friend
‘John drank coffee with a friend, but I don’t know which friend.’

b. John ḳətab bahθ-ah [f-kombjutə], bās maa ṣərf [ʔaj
John wrote research-his in-computer but not I know which
computer
‘John wrote his research on a computer, but I don’t know which computer.’

Recall that wh-sluices formed by which-NPs must be derived by wh-fronting. In (9a, b),
the use of which-NPs in the second clause in the absence of a preposition is fully
grammatical, suggesting that (9a, b) can only be the result of wh-movement of the
which-NP which strands a preposition, followed by IP-deletion. This is shown in (10):

(10) John ḥar gahwa [wijja ᵑ adiq], bās maa ṣərf [[ʔaj
John drank coffee with friend but not I know which
ṣadiq], John ḥar gahwa [槄-wijja-t].
friend John drank coffee with
‘John drank coffee with a friend, but I don’t know which friend.’

The observation can be stated as in (11) which stands in contrast with the PSG:

(11) Emirati Arabic allows P-stranding under sluicing but not under regular
wh-movement.

One issue is whether the PSG is falsified because of (9), or whether the PSG should be
modified to allow for this counterexample. One option is to reformulate the PSG as follows, making reference to the level at which P-stranding violations are defined.\(^6\)

(12) A language \(L\) will allow preposition stranding under sluicing, even though it may not allow it under wh-movement, iff in \(L\), preposition stranding violations are determined at PF.

In fact, EA may not be the first language which shows that P-stranding violations can be rescued by sluicing. Sato (2011) claims that Indonesian sluicing can also rescue P-stranding violation. He argues that Indonesian obligatorily requires the wh-feature to percolate to PP (e.g. ‘to whom’), thus banning P-stranding by wh-movement. He suggests that P-stranding violation in Indonesian is defined at the level of PF, and can be repaired by sluicing.\(^7\)

4. The impact of the antecedent correlate on the choice of the sluicing source

So far we have looked into cases in which wh-fronting and wh-clefts differ in terms of structural descriptions and numeration. That is to say, the use of either wh-construction is legitimate as long as individual morphosyntactic properties are met (e.g. 5-7). However this does not suffice to account for the distinction between the formation of wh-sluices and wh-pseudosluices, if the antecedent clause is taken into account. In (13a, b), the antecedent clause contains an implicit argument (indicated by the underscore).\(^8\) The use of either wh-construction in the second clause is grammatical:

(13) a. John jsuug __, bɔs maa ʃɔrf [ʃuuj jsuug].

John 3SM.drive but not 1.know what 3SM.drive

‘John drives, but I don't know what he drives.’
b. John jsuuğ __, bəs maa ʕərf [fuu (hu) əlli
John 3SM.drive but not 1.know what 3SM that jsuuğ-ah].

3SM.drive-3SM

‘John drives, but I don't know what it is that he drives (it).’

(14) shows that the use of wh-sluice fuu ‘what’ is grammatical. The wh-pseudosluice indicated by fuu hu ‘what it is’, however, is strictly banned:

(14) John j-suug __, bəs maa ʕərf [fuu (*hu)].
John 3SM-drive but not 1.know what 3SM

‘John drives, but I don't know what (it is).’

The contrast between (13) and (14) on one hand, and between (8) and (14) on the other hand, is puzzling if we assume that a wh-sluice/wh-pseudosluice is the elided outcome of wh-fronting/wh-clefts. Comparing (14) with (8) in which both wh-sluicing and wh-pseudosluicing are available options, the antecedent correlate is implicit in (14), whereas it is overtly present in (8). That is to say, wh-pseudosluicing is immediately precluded if the antecedent correlate is implicit. Combining this with the aforementioned observations, we can summarize the following restrictions on the use of wh-pseudosluice:9, 10

(15) In Emirati Arabic, wh-pseudosluicing is banned if (i) the antecedent correlate is implicit, (ii) it is a wh-adjunct or (iii) it is a wh-phrase (e.g. which-NP, wh-PP).

5. Conclusion
In this squib, we have demonstrated that in Emirati Arabic, the bare wh-words in a sluicing clause can be derived from two sources, namely wh-fronting and wh-clefts, and the bare wh-word is called ‘wh-sluice’ and ‘wh-pseudosluice’ respectively. The choice of the sluicing sources is conditioned by (i) the morphosyntactic properties and conditions imposed on individual wh-constructions, and (ii) whether the antecedent correlate is implicit. A wh-sluice can be used freely for any type of wh-expression, and regardless of the syntactic projection (or not) of the antecedent correlate. The use of wh-pseudosluice, on the other hand, is limited to bare wh-arguments (e.g. /uni0283uu ‘what’ and /uni0259nu ‘who’, but not wh-phrases such as which-NP or wh-PP), and is strictly banned if the antecedent correlate is implicit. We have provided evidence showing that EA is a counterexample to Merchant’s Preposition Stranding Generalization (PSG). That is to say, preposition stranding is possible under sluicing, even though it is strictly banned in the case of wh-movement. The PSG can be preserved by stating that the constraint on P-stranding can be defined as a PF condition in languages such as Emirati Arabic. Such move is consistent with the PF-deletion approach to sluicing: sluicing a result of PF-deletion can rescue P-stranding violations as defined at the level of PF.

References


Earlier versions of this squib were presented at the 46th and 47th Annual Conference of Chicago Linguistic Society (CLS-46, 47) and the Twenty-fifth Annual Symposium on Arabic Linguistics (ALS-25). I would
like to thank Fatima Eissaee, Mariam Kaabi and Aamna Shemeili for the discussion of Emirati Arabic data, and Stephen Matthews, Roumyana Pancheva, and the two *LI* reviewers for their comments. This paper is dedicated to the memory of my academic and life mentor, Jean-Roger Vergnaud.


2 Aoun, Choueiri and Hornstein (2001) claim that Lebanese Arabic (LA) wh-questions formed by a resumptive pronoun involve movement. In particular, they argue that resumption outside islands is movement-driven, whereas resumption inside islands is not. EA differs from LA in that the latter allows the use of resumptive pronouns in wh-fronting. On the other hand, wh-fronting in EA is formed by a gap. For further arguments of treating wh-fronting and wh-clefts in EA as involving distinct constructions, see Leung and Al-Eisaei 2010.

3 Clefts typically include a copular pronoun as a pivot, for example:

(i) hu əl-ktaab eļli fčr-eet-ah.

3sm the-book.M that bought-2SM-3SM ‘It is the book that you bought (it).’

4 The claim that the wh-pseudosluice is derived from wh-clefts is evident from the observation that both display the same morphosyntactic properties. First, the copular pronoun can be used in both constructions. Also neither can be used with wh-adjuncts (e.g. *keif hu? ‘How is it?’; *leif hu? ‘Why is it?’) or wh-PPs (e.g. *f-ʔaj mokaan hu? ‘In which place is it?’).

5 Observe the following contrast between wh-fronting (i) and wh-cleft (ii) formed by which-NPs:

(i) fi ?aj kmbjutər John katab bahθ-ah?

‘On which computer did John write his research?’

(ii) *fi ʔaj kmbjutər (hu) eļli John katab bahθ-ah?

6 Thanks to an *LI* reviewer for the suggestion.

7 Sato’s analysis rests upon the notion of wh-feature percolation (Chomsky 1972). Languages are parametricized in terms of whether the PP-containing wh-expressions (e.g. ‘who’ as in ‘to who’) can
percolate their [+wh] feature to its containing PP. In the derivation of wh-questions, the interrogative C
attracts the closest goal with a [+wh]. For P-stranding languages, such wh-feature percolation to PP is
optional, and as a result overt wh-movement can either strand a preposition or not.

8 In this squib, I consider implicit arguments as semantic arguments which are not syntactically projected.
For further discussion of the analysis of implicit arguments as unprojected elements vs. as null pronouns,
please refer to Bhatt and Pancheva 2006.

9 One reviewer suggests that the contrast may lie in the semantic contribution of the copular pronoun hu.
Carnie (1995) pointed out that in Hebrew, the use of a copular pronoun is obligatory in equative sentences
(e.g. Dani *(hu) ha-more (Danny 3SM the-teacher) ‘Danny is the teacher’). We can claim that the EA
copular pronoun hu also implies an equative structure which requires an R-expression for the
wh-pseudosluice, hence the requirement for an overt antecedent correlate. Native speakers also express the
intuition that the copular pronoun hu which follows the wh-pseudosluice must be anaphoric to a
discourse-linked antecedent. On the other hand, the wh-sluice (without a copular pronoun) does not have
this requirement. This requirement for a D-linked antecedent also explains why wh-adjuncts are banned in
wh-pseudosluicing.

10 The impact of the implicit antecedent correlate on the sluicing source is reminiscent of, though not
identical to, Chung, Ladusaw and McCloskey’s (1995) discussion of Merger or Sprouting. The use of
implicit antecedent correlates, however, does not suffice to falsify the PSG, for example:

(i) John yføkker, bas maa fərf <b-fuu*/fuu>.
   John think but not know.1SG of-what/what
   ‘John thinks, but I don’t know *(of) what.’