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On sluicing and its kin: Evidence from Egyptian Arabic

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Introduction. One influential generalization on the syntax of sluicing (call it *Generalization A*) maintains that sluicing or lack thereof is tied to the wh-syntax of a given language (Ross 1969; Merchant 2001; Lasnik 2001). In English, sluicing is assumed to result from wh-fronting plus TP-deletion, as in (1).

1) John bought something, but I don't know [$_{CP}$ what$_i$ [$_{TP}$ ~~John bought t_i~~]]

Egyptian Arabic (EA) is primarily a wh-in-situ language that also allows wh-clefting and wh-fronting under very specific conditions; as such, it provides a good testing ground for Generalization A. In this paper, I show that the language exhibits genuine sluicing only in contexts where wh-fronting is allowed, and cleft-sluicing otherwise, thereby supporting Generalization A. The data and analysis presented here thus aim to (i) contribute to the cross-linguistic study of sluicing and sluicing-like constructions (SLCs) and (ii) bear on theoretical issues related to the investigation of ellipsis phenomena in human language.

Wh-syntax of EA (cf. Wahba 1984; Cheng 1997). EA utilizes multiple strategies for wh-questions. Wh-arguments may appear in situ (2), or as pivots of a cleft structure (3), followed by an (optionally overt) pronominal copula and/or an optional demonstrative, and a free relative clause (FRC) marked by the complementizer *ʔillii* and a resumptive pronoun. Fronting of a wh-argument is strictly prohibited (4).

2) shuf-t **miin**?
saw-2SGM who
'Who did you see?'

3) **miin**$_i$ (**huwwa**) (**da**) **ʔillii** ʔinta shuf-t-**uh**$_i$?
who COP.SGM DEM.SGM COMP you saw-2SGM-him
'Who is it that you saw?'

4) ***miin**$_i$ shuf-t t_i?
who saw-2SGM

Bare wh-adjuncts, meanwhile, can appear either in situ (5), or in a left-peripheral focused position via fronting (6); but they are strictly prohibited from appearing as pivots in a cleft structure (7). That wh-adjuncts undergo movement is supported by their island-sensitivity, as the ungrammatical (8) shows.

5) ʔinta ha-tsaafir **feen/ʔimtaa/ʔizzaay/leeh**?
you FUT-travel.2SGM where/when/how/why?
'Where/when/how/why will you travel?'

6) **feen**$_i$/**ʔimtaa**$_i$/**ʔizzaay**$_i$/**leeh**$_i$ ha-tsaafir t_i?
where/when/how/why FUT-travel.2SGM
'Where/when/how/why will you travel?'

7) ***feen/ʔimtaa/ʔizzaay/leeh** (**huwwa**) **ʔillii** ʔinta ha-tsaafir?
where/when/how/why COP.SGM COMP you FUT-travel.2SGM
'Where/when/how/why is it that you will travel?'

8) ***feen**$_i$ Mona ziʕl-it laʔann Ali saafir t_i?
where Mona got.upset-3SGF because Ali FUT-traveled.3SGM
'*Where did Mona get upset because Ali traveled to?'

Sluicing and SLCs in EA. If Generalization A holds, we expect EA bare wh-adjuncts, but not wh-arguments, to appear in sluicing contexts. At least on the surface, this predicted asymmetry is not borne out, since both types of wh-phrases appear as remnants in what looks like sluicing contexts (9-10).

9) Mona ha-tsaafir bass ma-ʕraf-š **feen/ʔimtaa/ʔizzaay/leeh**
Mona FUT-travel.3SGF but NEG-know.1SG-NEG where/when/how/why
'Mona will travel, but I don't know where/when/how/why.'

10) Mona bi-tiħibb waaħid bass ma-ʕraf-š **miin**
Mona ASP-love.3SGF one but NEG-know.1SG-NEG who
'Mona loves someone, but I don't know who.'

The appearance of wh-adjuncts as remnants in a sluicing clause is expected, since they can undergo fronting in the language (cf. 6). As such, (9) can have a standard sluicing derivation as in (11), where CP is the sluicing clause, and the wh-adjunct is in SpecFocP (rather than SpecCP, given that an overt Q-particle optionally occupies the C position and precedes wh-phrases in matrix questions; cf. Eid 1992).

11) [$_{CP}$ [$_{FocP}$ **feen**$_i$/**ʔimtaa**$_i$/**ʔizzaay**$_i$/**leeh**$_i$ Foc ~~[$_{TP}$ …… t_i]~~]]

It is the occurrence of wh-arguments in SLCs such as (10) that poses a challenge to Generalization A, since EA strictly prohibits fronting of wh-arguments, unlike Emirati Arabic (Leung 2014) and Libyan Arabic (Algryani 2015). One possible analysis of (10) is as an instance of ***pseudosluicing*** (along the lines suggested for Japanese SLCs in Kizu 1997 and Merchant 1998), where the wh-phrase *miin* in (10) is a reduced cleft equivalent to 'who it is.' Even though EA is a null subject and a null copula language, there is no evidence that the language has overt or null expletives of the 'it' type, which casts doubt on a pseudosluicing analysis. I would like to argue instead that SLCs such as (10) are derived from an underlying wh-cleft structure whose TP undergoes deletion, leaving the wh-pivot behind, with recoverability of elided material licensed under semantic identity with the antecedent clause (Merchant 2001; Potsdam 2007; van Craenenbroeck

2010). The main evidence for this ***cleft-sluicing*** analysis is that elements such as the pronominal copula and demonstrative, which characterize cleft structures, (as in 3 and 12), may also appear stranded with the wh-phrase in SLCs, as the multiple possibilities in (13) show.

12) Ahmad **(huwwa) (da)** ʔillii Mona bi-tiḥibb-uh
Ahmad COP.SGM DEM.SGM COMP Mona ASP-love.3SGF-him
'It is Ahmad that Mona loves.'

13) Mona bi-tiḥibb waaḥid bass ma-ʕraf-š **miin (huwwa) (da)**
Mona ASP-love.3SGF one but NEG-know.1SG-NEG who COP.SGM DEM.SGM
'Mona loves someone, but I don't know who.'

Notice that an analysis of (13) whereby *huwwa* is a referential third person pronoun, instead of a copula, faces the challenge of explaining the co-occurrence of both a pronominal and a demonstrative in SLCs. In addition, such an analysis would have to assume that the [WH-PHRASE PRONOMINAL DEMONSTRATIVE] string is specific to SLCs only. By contrast, under a cleft-sluicing analysis, no such construction-specific assumption needs to be made, since this string is what is left behind after deletion applies to a regular cleft structure. This account is strengthened by the prosodic fact that, when sluiced behind with a wh-phrase, either *huwwa* or *da* in (13) receives the pitch accent, exactly as in clefts. The analysis is also cross-linguistically supported, since the occurrence of a demonstrative in SLCs like (13) is similar to what van Craenenbroeck (2010) calls ***spading*** in Dutch dialects. In both Dutch and EA, the demonstrative carries a presuppositional meaning and is incompatible with wh-adjuncts. Interestingly, van Craenenbroeck argues for a cleft-sluicing analysis of spading, which is what is proposed here for EA SLCs. Further, the analysis can readily account for the behavior of wh-PPs in a non-P-stranding language like EA: Since PPs can be fronted in EA, a wh-PP can appear as a sluicing remnant (like bare wh-adjuncts in 11), hence the impossibility of the copula and demonstrative in (14). If a wh-phrase is merged as a pivot of a cleft, while being associated with a resumptive pronoun inside the PP, then we have a case of cleft-sluicing, (15). Both structures obey Merchant's (2001) generalization on P-stranding (cf. Rodriguez et al 2009).

14) Mona bi-titkallim maʕa waaḥid bass ma-ʕraf-š **maʕa miin (*huwwa) (*da)**
Mona ASP-talk.3SGF with one but NEG-know.1SG-NEG with who COP.SGM DEM.SGM
'Mona is talking with someone, but I don't know with whom.'

15) Mona bi-titkallim maʕa waaḥid bass ma-ʕraf-š **miin (huwwa) (da)**
Mona ASP-talk.3SGF with one but NEG-know.1SG-NEG who COP.SGM DEM.SGM
'Mona is talking with someone, but I don't know who.'

Syntactic derivations of cleft-sluicing in EA I will assume the equative copular structure in (16) for EA clefts; cf. Eid 1983, 1991; Ouhalla 1999; Choueiri 2016.

16) $[_{CP}\ [_{FocP}\ \text{Pivot}_i\ \text{Foc}\ [_{FP}\ \text{Dem F}\ [_{TP}\ \text{T}\ [_{PredP}\ pro_i\ [_{Pred'}\ \text{Pred}_{COPULA}\ [_{DP}\ [_{CP}\ C_{ʔillii}\ \ldots\ RP_i\ \ldots]]]]]]]]$

Pivots of clefts are base-generated in SpecFocP. A copula heads a PredP (Bowers 1993), whose subject is *pro* and whose complement is a free relative clause (FRC) with a resumptive pronoun (RP). The pivot, *pro*, and the RP are all coindexed. Pred may stay in situ (in which case it is null at PF) or it head-moves to T and Foc (in which case it surfaces as a pronominal copula with T's phi-features). An optional projection in clefts (named FP in 16) can host a (Dem)onstrative pronoun in its Spec, and is assumed to be where presupposition is encoded. Finally, I assume that ellipsis is triggered by an E-feature on a functional head H, causing H's complement to delete at PF (Merchant 2001). Unlike in English, the E-feature is hosted by either Foc or F in EA, triggering TP-deletion in both cases. Given these assumptions, the derivations of the four surface possibilities of the cleft-sluiced CP in (13) are as in (17-20). Remnants are in blue; the E-feature is marked by a red subscript. Strikethrough marks deletion. For readability, head-movement of Pred to T and Foc in (18) and (20) is not shown, but is signaled via a *huwwa* subscript on Foc.

17) $[_{CP}\ [_{FocP}\ \text{miin}_i\ \text{Foc}_E\ [_{TP}\ \sout{\text{T}\ [_{PredP}\ pro_i\ [_{Pred'}\ \text{Pred}_{COPULA}\ [_{DP}\ [_{CP}\ C_{ʔillii}\ \text{Mona bi-tiḥibb-uh}_i]]]]]]]]$

18) $[_{CP}\ [_{FocP}\ \text{miin}_i\ \text{Foc}_{E\text{-}huwwa}\ [_{TP}\ \sout{\text{T}\ [_{PredP}\ pro_i\ [_{Pred'}\ \text{Pred}_{COPULA}\ [_{DP}\ [_{CP}\ C_{ʔillii}\ \text{Mona bi-tiḥibb-uh}_i]]]]]]]]$

19) $[_{CP}\ [_{FocP}\ \text{miin}_i\ \text{Foc}\ [_{FP}\ \text{Dem}_{da}\ F_E\ [_{TP}\ \sout{\text{T}\ [_{PredP}\ pro_i\ [_{Pred'}\ \text{Pred}_{COPULA}\ [_{DP}\ [_{CP}\ C_{ʔillii}\ \text{Mona bi-tiḥibb-uh}_i]]]]]]]]]$

20) $[_{CP}\ [_{FocP}\ \text{miin}_i\ \text{Foc}_{\text{-}huwwa}\ [_{FP}\ \text{Dem}_{da}\ F_E\ [_{TP}\ \sout{\text{T}\ [_{PredP}\ pro_i\ [_{Pred'}\ \text{Pred}_{COPULA}\ [_{DP}\ [_{CP}\ C_{ʔillii}\ \text{Mona bi-tiḥibb-uh}_i]]]]]]]]]$

Conclusion. In sum, EA exhibits genuine sluicing only in contexts where fronting is permitted (bare wh-adjuncts and wh-PPs), and cleft-sluicing otherwise, in line with the wh-syntax of the language.

Abbreviated selected references. Ross, J. R. 1969. 'Guess who?' Choueiri, L. 2016. 'Pronominal copula in Arabic.' Craenenbroeck, J. van 2010. *The syntax of ellipsis*. Eid, M. 1983. 'Copula function of pronouns.' Merchant, J. 2001. *The syntax of silence*. Ouhalla, J. 1999. 'Focus and Arabic clefts.' Rodriguez, Nevins, & Vincent. 2009. 'Cleaving the interactions between sluicing and P-stranding.' Wahba, W. 1984. *Wh-Constructions in Egyptian Arabic*.