

Parasitic Gap Constructions in Lebanese Arabic: Resumption as Pied-piping

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Resumption is a relation of coreferentiality between a pronominal element (a weak pronoun, a strong pronoun, or an epithet) and an antecedent in a given structure. The pronominal element occupies a position that would normally be vacant, as the contrast between the Lebanese Arabic (LA) sentence in (1) and its English translation illustrates:

- (1) l-rizzeel jallii seeʔadt-**o** faʔiir ktiir
 the-man that helped.2s-**him** poor very
 ‘The man that you helped ____ is very poor.’

Aoun, Choueiri and Hornstein (2001) analyze certain instances of resumption in LA as movement *plus* stranding. A resumptive pronominal (RP) undergoes first merge with an antecedent. The antecedent moves to a higher position, while the RP is stranded, (2). That is, derivationally, (1) looks like (3).

- (2) a. antecedent ... [DP antecedent [DP strong pronoun/epithet]]
 b. antecedent ... [DP antecedent [D weak pronoun]]
- (3) l-rizzeel jallii seeʔadt [DP l-rizzeel [D -o]] faʔiir ktiir
 the-man that helped.2s [DP the-man [D -him]] poor very
 ‘The man that you helped is very poor.’

Elsewhere I show that resumption in Telugu and Assamese, two South Asian languages, is movement minus stranding (Haddad 2010, 2011) – or movement plus pied-piping. This paper presents further evidence from parasitic gap (PG) constructions in LA to show that resumption as movement involves pied-piping. That is, when the antecedent moves, the RP moves along with it, (4). Decisions regarding the pronunciation or deletion of copies take place at PF.

- (4) [antecedent [RP]] ... [antecedent [RP]]

English licenses parasitic gap (PG) constructions like (5) in which an empty site in the adjunct and another in the matrix clause resume an antecedent – the same antecedent – in the matrix clause. The empty site in the adjunct is referred to as a PG because its licensing depends on the existence of a real gap. This real gap crucially does not c-command the PG.

- (5) This is the **student**_i that they expelled _____i without interviewing _____i

Ouhalla (2001) presents similar structures from Moroccan Arabic (MA), (6). The difference between the English PG-construction and its MA counterpart is that the latter contains a RP in the site of the PG.

- (6) hada huwwa **l-maqal** lli ntaqad _____ qbl-ma
 this copula **the-article.M** that criticized.3.M.S _____ before-that
 jqra-h/*PG
 read.3.M.S-him
 ‘This is the article that he criticized before reading.’

Ouhalla provides a unified analysis to both English and MA PG constructions. He argues that both involve *pro* in the PG site, as (7) and (8) illustrate. *Pro* moves to the edge of the adjunct, and at LF it cliticizes to its antecedent in CP. This cliticization is responsible for the ability of the PG to receive the interpretation that it does. The difference between the two languages is that in MA the verb shows morphological agreement with *pro*, while in English it doesn't.

- (7) English
 [CP[Which report] ... [CP [Adjunct *pro* [without reading *pro*]]]]
 (8) MA
 [CP[Which report] ... [CP[Adjunct *pro* [without reading-AGR *pro*]]]]

In this paper, I adopt Nunes's (2004) analysis of PG constructions as sideward movement. This movement is made up of four independent steps: Copy, Merge, Form Chain, and Chain Reduction. It allows a syntactic object to move between two unconnected phrasal structures. Thus, (9) has the derivation in (10). *Which paper* copies out of the adjunct L and merges in matrix vP M, (10a-b). L and M undergo merge and the structure projects as (10c). The highest copy of *which paper* c-commands the two lower copies and forms a chain with each them, (10d). At PF, Chain Reduction applies, deleting the lower copy in each chain, (10e).

- (9) Which paper did you file without reading?
 (10) a. L = [without reading [**which paper**]] → [**which paper**]
 b. M = [vP file [**which paper**]]
 c. [CP [**which paper**] did [IP you [vP[vP [VP file [**which paper**]]] [CP[Adjunct without reading [**which paper**]]]]]]
 d. i. [CP [**which paper**] did [IP you [vP[vP [VP file [**which paper**]]] ...]]]
 ii. [CP [**which paper**] ... [Adjunct without reading [**which paper**]]]
 e. [CP [**which paper**] did [IP you [vP[vP [VP file ~~{**which paper**}~~]] [CP[Adjunct without reading ~~{**which paper**}~~]]]]]]

The same analysis works for MA. If Aoun et al.'s analysis is correct, the difference between English and MA is that the lower copy in MA starts with a pronoun adjoined to it, (11). When movement takes place, the pronoun is stranded in its merging site:

- (11) [CP [**which paper**] did [IP YOU [vP[vP [VP file ~~{**which paper**}~~]] [CP[Adjunct without reading [**which paper** [it]]]]]]]]

The analysis seems to work, and the difference between English and MA boils down to the difference between (12) and (13). Only (13) contains a stranded RP in the adjunct:

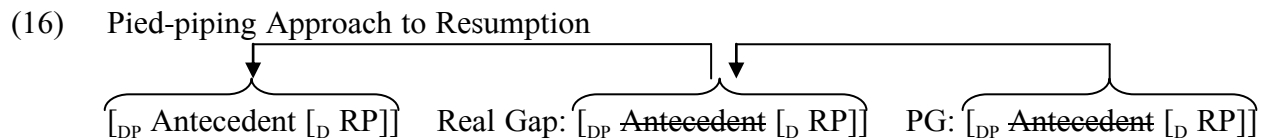
- (12) English: [Matrix [DP Antecedent] ... [DP ~~Antecedent~~] ... [Adjunct [DP ~~Antecedent~~]]]
 (13) MA: [Matrix [DP Antecedent] ... [DP ~~Antecedent~~] ... [Adjunct [DP ~~Antecedent~~ [D RP]]]]

Now we turn to Lebanese Arabic. As (14) and (15) show, LA PG constructions contain a resumptive pronoun, not only in the PG site, but also in the site of the real gap.

(14) hajde hijje **l-riseele** jalli bafat-*(**a**) biduun-ma
 this copula **the-letter.f** that sent.3.m.s-*(**it.f**) without-comp
 jimd^fijj-*(**a**)
 sign.3.m.s-*(**it.f**)
 ‘This is the letter he sent _____ without signing _____.’

(15) hajdool hinne **l-lawheet** jalli inta?ad-*(**un**)
 these coplula the-paintings that criticized.3.m.s-*(**them**)
 ?abel-ma j?uuf-*(**un**)
 before-comp see.3.m.s-*(**them**)
 ‘These are the paintings he criticized _____ before seeing _____.’

The stranding approach to resumption predicts that the RP will only appear in the PG site. Therefore, it cannot account for (14) and (15). The pied-piping approach, on the other hand, holds that the RP moves along with the DP it adjoins to, as (16) illustrates.



While RP's normally appear in the lower sites, to the exclusion of the higher site (however, see Shlonsky 1997), strong pronouns may appear in all landing sites, which is not possible if the strong pronoun is stranded:

(17) hajdool hinne **l-lawheet** (**killun**) jalli
 these coplula the-paintings (all of them) that
 inta?ad-**un** (**killun**) ?abel-ma j?uuf-**un** (**killun**)
 criticized.3.m.s-**them** (all of them) before-comp see.3.m.s-them (all of them)
 ‘These are the paintings he criticized _____ before seeing _____.’

In addition to PG constructions, Nunes (2004) analyses structures that involve Across-the-Board (ATB) extraction, (18), as instances of sideward movement. Interestingly, similar structures in LA also involve RP's that appear in all landing sites, thus providing further support for the pied-piping approach to resumption, (19).

(18) These are **the children** that Jim helped _____ and Sue encouraged _____.

(19) hajdool **l-wleed** (**kullun**) jalli zamiil
 these the-children (all of them) that Jamil
 see?ad-**un** (**kullun**) w-hanaan ?a33a?it-un (**kullun**)
 helped.3.m.s-them (all of them) and-Hanan encouraged.3.f.s-them (all of them)
 Roughly: ‘These are the children all of them that Jamil helped and Hanan encouraged.’

LA PG constructions face a problem that ATB constructions don't: Coreferentiality in LA PG constructions is not obligatory, as (20) illustrates.

- (20) hajdool hinne **l-lawheet** jalli intaʔad **l-fine:m**
 these coplula the-paintings that criticized.3.m.s **the-artist**
 ʔabel-ma jʃuuf-**un**
 before-comp see.3.m.s-them
 ‘These are the paintings he criticized the artist before seeing them.’

Note that the English translation in (20) contains a RP in the PG site. Aoun et al. consider the English sentence as an instance of true resumption. That is, it involves a locally A'-bound DP that resumes its antecedent via binding, (21). In other words, no movement is involved. I take the LA sentence in (20) to be similar to its English equivalent. That is, in the absence of a coreferential RP in the site of the real gap, the RP in the PG site is related to its antecedent via binding rather than movement.

- (21) a. antecedent_i ... [DP strong pronoun/epithet]_i
 b. antecedent_i ... [D weak pronoun]_i

ATB constructions do not face this problem because in LA, as well as in English, extraction out of one conjunct requires extraction out of the second conjunct, thus the name, ATB constructions. That is, ATB constructions obey the Coordinate Structure Constraint. This constraint disallows extraction of an element out of a conjunct (Ross 1967, cited in Kehler 1996). To illustrate, whereas (22a) is grammatical, (22b) is unacceptable because an NP is extracted out of a conjunct. This explains why coreferentiality is obligatory. And unlike with PG constructions, resumption does not salvage the structure, (22c).

- (22) a. Tom ate a sandwich and drank a soda.
 b. * What did Tom eat a sandwich and drink _____?
 c. *What did Tom eat a sandwich and drink **it**?

In conclusion, LA PG constructions present strong evidence that resumption as movement involves pied-piping rather than stranding. This approach may also account for other instances of resumption in LA, such as resumption in ATB constructions.

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