A new shared antecedent approach to parasitic gaps: Explaining connectivity and the A-/Ā-distinction

1. Introduction. Prior literature has debated whether multiple gaps in parasitic gap (*pg*) constructions have a shared antecedent or separate antecedents. I adduce novel arguments for a shared antecedent approach from connectivity effects in English: ***pg*s obligatorily match the category and binding theoretic class of the filler**. I develop an analysis of *pg*s that derives these facts by synthesizing two very different previous accounts—Nissenbaum (2000) and Nunes (2004)—in a way that preserves key insights of both. My analysis also automatically explains why Ā-movement but not A-movement licenses *pg*s (Engdahl 1983), which are themselves created by Ā-movement (Kayne 1983; Nissenbaum 2000), once we adopt the proposal that constituents undergoing Ā-movement (i.e. QPs) are structurally distinct from constituents undergoing A-movement (i.e. DPs; see Cable 2010; Safir 2019): this is just another manifestation of category connectivity.

2. Two approaches to *pg*s. *Separate antecedent* approaches hold that *pg*s are created by movement of a null operator (*Op*), distinct from the antecedent of the licensing gap (i.e. the *filler*), that terminates at (or near) the edge of the maximal island containing the *pg* ((1); e.g. Contreras 1984; Chomsky 1986; Nissenbaum 2000).

(1) It's the pie$_1$ that we should reheat ⟨the pie$_1$⟩ [*Op*$_2$ before we serve ⟨*Op*$_2$⟩ to the guests].

Shared antecedent approaches argue that both gaps are created by movement of the filler. Although work in this vein typically does not posit Ā-movement of the filler to the edge of the island (e.g. Nunes 2004), the evidence for such movement is robust (e.g. Kayne 1983; Chomsky 1986), so I assume it throughout.

(2) It's the pie$_1$ that we should reheat ⟨the pie$_1$⟩ [⟨the pie$_1$⟩ before we serve ⟨the pie$_1$⟩ to the guests].

Investigating connectivity effects between the filler and *pg* offers a way to decide between these approaches. I set aside reconstruction with complex fillers that properly contain an anaphor, variable, or R-expression because the empirical landscape is somewhat unclear: while reconstruction to the *pg* is barred in some cases (e.g. Nissenbaum 2000: §1.2), it is possible in others (e.g. Munn 1994; Levine and Sag 2003). The facts do not obviously favor either approach (see Bruening and Al Khalaf 2017). **3. Connectivity effect #1: *pg*s obligatorily match the binding theoretic class of the filler.** *Pg*s behave like (i) R-expressions when the filler is an R-expression, triggering strong crossover ((3)), (ii) pronouns when the filler is a pronoun, obeying Condition B, not A or C ((4)), and (iii) anaphors when the filler is an anaphor, obeying Condition A ((5)).

(3) It was some other guy$_1$ that Tia recognized ___$_1$ [because he$_{*1/2}$ taught you to describe *pg*$_1$ so well].

(4) a. It was him$_1$ that Tia recognized ___$_1$ [because he$_1$ taught you to describe *pg*$_1$ so well].
b. It was him$_1$ that Tia recognized ___$_1$ [because you taught him$_{*1/2}$ to describe *pg*$_1$ so well].

(5) It was himself$_1$ that John$_1$ nominated ___$_1$ [before he$_1$ voted for *pg*$_1$]. (Barss 1986: 478)

The fact that the *pg* tracks properties of the filler is mysterious under a separate antecedent approach, where the real antecedent of the *pg* is *Op*. Although there are analyses of *Op* as a non-reflexive pronoun (e.g. Browning 1987; Postal 1998; Munn 2001), which can account for the facts in (4), such analyses leave (3) and (5) unaccounted for. Moreover, even if *Op*'s binding theoretic class were flexible, an additional mechanism would be necessary to force the filler and *Op* to match; I am not aware of any proposal along these lines. By contrast, a shared antecedent approach accounts for this connectivity straightforwardly: the *pg* is a gap left by movement of the filler and therefore contains a representation of the filler subject to the Binding Theory.

4. Connectivity effect #2: *pg*s obligatorily match the lexical category of the filler. As I show for the first time, a DP filler can license a DP *pg* ((6a)) but not a PP *pg* ((6b)), while a PP filler can license a PP *pg* in certain idiolects ((6c); Haïk 1987: 75, fn. 49, Levine et al. 2001, *pace* Cinque 1990), but not a DP *pg* ((6d)).

(6) a. It was [$_{DP}$ that door] that Julia peered under ___$_{DP}$ [before carefully opening *pg*$_{DP}$].
b. *It was [$_{DP}$ that door] that Julia peered under ___$_{DP}$ [before sliding a secret sealed envelope *pg*$_{PP}$].
c. %It was [$_{PP}$ under that door] that Julia peered ___$_{PP}$ [before sliding a secret sealed envelope *pg*$_{PP}$].
(slightly adapted from Murphy 2022: 5, (6c))
d. *It was [$_{PP}$ under that door] that Julia peered ___$_{PP}$ [before carefully opening *pg*$_{DP}$].
(see also Chomsky 1982: 55, citing David Pesetsky p.c.; Hewett 2023: 76, 120)

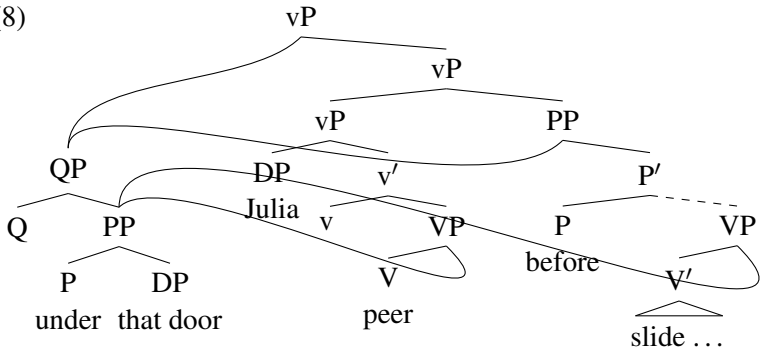
This generalization extends to other PPs, including PP goals and (semantically inert) l-selected PPs. To account for categorial connectivity, a separate antecedent approach would need to posit a PP *Op* (and a category-matching mechanism) in (6c), a suspect proposal given the unacceptability of restrictive relatives like **Julia peered under that door* [$_{\text{CP}}$ Op$_{\text{PP}}$ *that she slid a secret sealed envelope* ___$_{\text{PP}}$]. On the other hand, categorial connectivity is precisely what we expect if the filler occupies both gap positions prior to movement.

5. Accounting for connectivity with *pg*s. I propose a new shared antecedent analysis of *pg*s which synthesizes aspects of Nissenbaum (2000) and Nunes (2004). Following Nissenbaum, *pg*-containing constituents are derived predicates created by Ā-movement and λ-abstraction. To be interpretable, this derived predicate must be sister to another derived predicate of the same type at LF. Ā-movement of the filler to the edge of vP in the main clause will trigger λ-abstraction and create a derived predicate for the *pg*-containing constituent to attach to. Following Nunes, I propose that the filler is what moves in both the island and the main clause. Intermediate representations of this filler can be *neglected* at LF (Sportiche 2016), so the filler at the edge of the *pg*-containing predicate will not saturate it, shown in (7) for (6a); neglected material is struck through:

(7) [$_{\text{vP}_t}$ that door [$_{\text{vP}_{\langle e,\,t\rangle}}$ [$_{\text{vP}_{\langle e,\,t\rangle}}$ λx Julia peered under $\langle$th. d.$\rangle_x$] [$_{\langle e,\,t\rangle}$ ~~$\langle$th. d.$\rangle$~~ λx before opening $\langle$th. d.$\rangle_x$]]]

Because *pg*-licensing Ā-movement can involve pied piping, e.g. of PP ((6c)), I adopt Cable (2010)'s proposal that phrases undergoing Ā-movement are headed by a distinct syntactic category 'Q' which is the true target of Ā-probes. However, adapting ideas in Johnson (2012), Poole (2017), and Safir (2019), I propose that QP is not merged in a thematic position but is layered on *late*, via parallel Merge (Citko 2005). Category matching in (6a–c) follows under movement: Ā-movement to the edge of the *pg*-containing constituent will necessarily add a QP layer to the filler through parallel Merge, and this same QP will be internally merged at the edge of the main clause vP, as shown in (8) for (6c). The mismatch in (6b) is excluded on subcategorization grounds: the filler QP contains a DP but not a PP, so nothing satisfies the PP selectional requirement of the verb *slide*. The binding connectivity facts in (3)–(5) are also accounted for because the filler occupies all gap positions through parallel Merge prior to movement.

(8)



Importantly, 'layering' derivations require us to redefine internal Merge of α and β to admit cases where α and β do not exhaustively overlap in dominance: in (8), internal merge of QP and P′ is possible even though P′ does not dominate Q(P). Still, we must constrain this overlap, so as to not generate the unacceptable (6d), which could be pathologically derived by internally merging [$_{\text{QP}}$ Q [$_{\text{PP}}$ *under* [$_{\text{DP}}$ *that door*]]] with a P′ that only dominates [$_{\text{DP}}$ *that door*]. To block such a derivation, I propose the condition on internal Merge in (9).

(9) Internal Merge of α and β is defined iff, for every node γ such that (i) β irreflexively dominates γ and (ii) γ is distinct from the label of β, α irreflexively dominates γ.

(9) enforces layering one head at a time, correctly excluding the pathological derivation of (6d).

6. An extension: the A-/Ā-distinction. My analysis also offers a novel syntactic account of the well known fact that Ā-movement ((2)), but not A-movement ((10)), licenses *pg*s (Engdahl 1983).

(10) *The pie$_1$ should be reheated ___$_1$ [before we serve *pg*$_1$ to the guests].

If A-movement involves movement of a DP, rather than a QP (Safir 2019; Hewett 2024), then this asymmetry is a manifestation of category matching. Since *pg*s are created by QP movement, QP must also be extracted in the main clause; (10) thus parallels (6b). No reference to semantic types is needed, *pace* van Urk (2017).

7. Conclusion. I develop a new shared antecedent approach to *pg*s which synthesizes earlier analyses, accounts for previously unrecognized connectivity effects, and offers a new account of the A-/Ā-distinction in *pg*-licensing. Time permitting, I will show how my analysis extends to ATB-movement.

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