## Parasitic Gaps Licensed by Elided Syntactic Structure Masaya Yoshida, Tim Hunter, & Michael Frazier

**1.** *Introduction*: As is well-known, the licensing condition on Parasitic Gaps (PGs) crucially refers to a specific syntactic configuration: a PG is licensed by a gap left by an **overt A-bar movement** which **does not c-command the PG** ([1]). An interesting consequence of the syntactic nature of PG-licensing is that PGs can be used to diagnose the internal structure of an ellipsis site: if a gap appears inside a domain that is usually opaque for extraction (e.g. an adjunct), and there is no obvious licensing gap on which it could plausibly be parasitic, then perhaps it is parasitic on a licensing gap in an ellipsis site's unpronounced syntactic structure ([2]). Employing this logic, this study argues that fully-fledged syntactic structure underlies the ellipsis site in sluicing. Specifically, we observe that the wh-remnant in sluicing can host a PG, as illustrated in (1a) (where the first clause contains a correlate of the remnant "how soon" phrase) and (1b) (without any correlate, i.e. "sprouting"). We show that the PG in the wh-remnant in (1a) and (1b) is licensed by a real gap (RG) in the ellipsis site, and thus the ellipsis involves the structure that is necessary for the licensing of PGs. This is expected under PF-deletion analyses of sluicing, but not LF-copying approaches.

- (1) a. The editor told me which book I must review \_\_\_\_\_\_ soon after receiving \_\_\_\_\_, but I don't remember [exactly how soon after receiving \_\_\_\_\_\_\_\_.
  - b. The editor told me which book I must review\_\_\_\_, but I don't remember exactly how soon after receiving \_\_\_PG.
  - c. The editor told me which book I must review\_\_\_soon after receiving \_\_\_.
  - d. \*The editor told me which book I must review\_\_,
    - but I don't remember exactly how soon after receiving  $\__{PG}$  I must review it.

2. The Paradigm: We focus on the simpler (1b) for ease of exposition, but everything we say about (1b) also holds for (1a). We will show that the gap in the sluicing remnant in (1b) has the properties expected of a PG licensed from within the elided structure. First, like regular PGs as in (1c), the gap in the whremnant in (1b) co-varies with the object gap in the first conjunct. However, crucially, the gap in the whremnant is **not** licensed by this gap in the first conjunct, as the contrast between (1b) and (1d) shows: If the gap in the wh-remnant were licensed by the wh-movement gap in the first conjunct, (1d) should be grammatical. The contrast between (1b) and (1d) thus suggests that the gap in the wh-remnant is dependent on something in the ellipsis site. Studies on sluicing have revealed that the ellipsis site and its antecedent hold a certain parallelism requirement ([3]). Consequently, if the gap in the wh-remnant is a PG, we expect that this gap will not be licensed if the antecedent clause for ellipsis has a structure that does not license PGs, since the ellipsis site will be structurally parallel to the antecedent. As is well-known, a PG is not licensed in the following environments: (i) when there is no RG left by an overt A-bar movement; (ii) when the RG c-commands the PG; (iii) when the RG is a PP-gap; (iv) when the PG is embedded in an island within an island. As the examples in (2) through (5) show, when the antecedent clause has one of these structures, the gap in the wh-remnant is not licensed (6 native speakers all agreed on these judgments). All of these examples strongly suggest that the gap in the wh-phrase is a genuine PG.

- (2) No overt A-bar movement
  - a. \*The editor told me who must review which book after receiving \_\_PG.
  - b. \*The editor told me who must review **which book**, but I don't remember [exactly how soon after receiving  $\__{PG}$ ].
- (3) Anti-C-Command Condition
  - a. \*The editor told me which book \_\_\_\_ must be reviewed after I received \_\_\_PG.
  - b. \*The editor told me **which book** must be reviewed, but I don't remember [exactly how soon after I received \_].
- (4) PP-gap
  - a. The editor told me [ $_{NP}$  which book] I must write about \_\_\_\_\_ soon after talking about \_\_\_\_PG.

- b. \*The editor told me [PP about which book] I must write \_\_\_\_\_ soon after talking \_\_\_PG.
- c. The editor told me [NP which newly published book] I must write about \_\_, but I don't remember [exactly how soon after talking about \_\_].
- d. \*The editor told me [PP **about which newly published book**] I must write \_\_\_\_\_R, but I don't remember exactly how soon after talking \_\_\_\_\_PG.

(5) Island

- a. \*The editor told me which book I must review \_\_ [soon after I hear [NP the news that the secretary receives \_\_PG]].
- b. The editor told me which book I must review  $\_$  [soon after I hear [<sub>CP</sub> that the secretary receives  $\__{PG}$ ]].
- c. \*The editor told me which book I must review \_\_, but I don't remember exactly [how soon after I hear [NP the news that the secretary receives\_]].
- d. The editor told me which book I must review \_\_\_, but I don't remember exactly [how soon after I hear that the secretary receives \_\_].

**3.** *Consequences*: These facts yield several theoretical consequences. First and most immediately, the fact that a PG is licensed in cases like (1b) indicates that the ellipsis site has full-fledged syntactic structure that supports the licensing conditions on PGs, contrary to some recent studies ([9,10]). Second, it bears on the issue of island repair by sluicing. In deriving (1b), the wh-remnant including the PG must move out of a wh-island configuration as in (6).

(6) ... [<sub>CP</sub>[*wH* exactly how soon after receiving \_\_**PG**][<sub>TP</sub> he told me [<sub>CP</sub> which book I must review \_\_RG \_\_*WH*]]]]

This indicates that sluicing can indeed ameliorate wh-island violations and even ECP violations (since the moved wh-phrase is an adjunct) ([3,4,5,6]), contrary to some recent studies ([7,8]). This argument for island-repair cannot be avoided by positing a non-parallel non-island-violating structure in the ellipsis site, such as a truncated cleft (e.g. "how soon after receiving it is") ([7,8]) or a short extraction (e.g. "how soon after receiving *I must review it*") ([3]): since these structures do not license PGs, positing such a source for (1b) would not account for the crucial gap in the sluicing remnant. Third, the fact that a PG must be licensed by overt A-bar movement is not obviously compatible with LF-copying analyses of sluicing ([5]), since on that view the overt A-bar movement that licenses a PG will not exist in the ellipsis site. Fourth, these data raise an interesting difficulty for the single-cycle view of syntax ([11]), which supposes that the distinction between overt and covert movement is only a matter of whether PF pronounces the higher or lower of two copies that form a chain. The familiar requirement of an overt licensor for PGs (violated in (2a)) already poses something of a puzzle for this view, since it must attribute the contrast between (1c) and (2a) to a distinction between a "pronounce-high" chain and a "pronounce-low" chain; but the data above indicate that furthermore, and even more surprisingly on the single-cycle view, there also appears to be a distinction between elided-but-pronounce-high chains (which license PGs, as in (1b)) and elided-but-pronounce-low chains (which do not, as in (2b)).

**References:** [1] Engdal (1983) Parasitic Gaps, *Linguistics and Philosophy* 6, [2] Kennedy (2003) Ellipsis and Syntactic Representation. In *The Interfaces*: John Benjamins. [3] Merchant (2001). *The Syntax of Silence*. Oxford. [4] Boeckx, & Lasnik. (2006). Intervention and Repair. *LI* 37 [5] Chung, Ladusaw & McCloskey (1995). Sluicing and logical form. *NLS* 3. [6] Ross. (1969). Guess Who? *CLS* 5 [7] Abels (2011). Don't Repair That Island! It Ain't Broke. Ms. UCL. [8] Barros (2012). Arguments against Island Repair: Evidence from Contrastive TP Ellipsis. *CLS* 48. [9] Culicover & Jackendoff. (2005). *Simpler Syntax*. Oxford [10] Ginzburg & Sag. (2000). *Interrogative Investigations*. CSLI. [11] Bobaljik (1995) *Morphosyntax: The Syntax of Verbal Inflection*. MIT PhD Thesis.