

the quantifier. The quantifier is then required to scope over the whole coordinate structure due to independently motivated principles of underspecification resolution. While this approach successfully yields the wide-scope reading for quantifiers, the distributive, narrow scope reading for quantifiers (which was trivial for Beavers & Sag) now becomes a challenge. Yatabe and Tam simply stipulate a complex disjunctive constraint on semantic interpretation tied to the ‘compaction’ operation that takes place in coordination so as to generate the two scopal readings.

Kubota & Levine (2015) note that, in addition to the quantifier scope issue noted above, Beavers & Sag’s approach suffers from similar problems in the interpretations of symmetrical predicates (*same*, *different*, etc.), summative predicates (*a total of X*, *X in total*, etc.) and the so-called ‘respective’ readings of plural and conjoined expressions (see Chaves (2012a) for a lucid discussion of the empirical parallels between the three phenomena and how the basic cases can receive a uniform analysis within HPSG). Yatabe & Tam (2019) offer a response to Kubota & Levine, working out explicit analyses of these more complex phenomena in linearization-based HPSG. A major point of disagreement between Kubota & Levine on the one hand and Yatabe & Tam on the other seems to be whether/to what extent an analysis of a linguistic phenomenon should aim to explain (as opposed to merely account for) linguistic generalizations. There is no easy answer to this question, and it is understandable that different theories put different degrees of emphasis on this goal (see also Chapter 32 for discussion on a related point). Whatever conclusion one draws from this recent HPSG/CG debate on the treatment of nonconstituent coordination, one point seems relatively uncontroversial: coordination continues to constitute a challenging empirical domain for any grammatical theory, consisting of both highly regular patterns (such as systematic interactions with scopal operators (Kubota & Levine 2015; 2020)) and puzzling idiosyncrasies (such as the summative agreement facts (Postal 1998; Yatabe & Tam 2019) and extraposed relative clauses with split antecedents (Perlmutter & Ross 1970; Yatabe & Tam 2019)).

4.2.2 Gapping and Stripping

Descriptively, Gapping is a type of ellipsis phenomenon that occurs in coordination and which deletes some material including the main verb:²³

²³There is some disagreement as to whether Gapping is restricted to coordination. Kubota & Levine (2016a), following authors such as Johnson (2009), take Gapping to be restricted to coordination. Park et al. (2019) take a different view, and argue that Gapping should be viewed as a type of ellipsis phenomenon that is not restricted to coordination environments. See

- (45) a. Leslie **bought** a CD, and Robin \emptyset a book.
 b. Terry **can go** with me, and Pat \emptyset with you.
 c. John **wants to try to begin to write** a novel, and Mary \emptyset a play.

Gapping has invoked some theoretical controversy in the recent HPSG/CG literature for the ‘scope anomaly’ issue that it exhibits. The relevant data involving auxiliary verbs such as (46a) and (46b) have long been known in the literature since Oehrle (1971; 1987) and Siegel (1987). McCawley (1993) later pointed out similar examples involving downward-entailing determiners such as (46c).

- (46) a. Mrs. J **can’t** live in Boston and Mr. J \emptyset in LA.
 b. Kim **didn’t** play bingo or Sandy \emptyset sit at home all evening.
 c. No dog **eats** Whiskas or \emptyset cat \emptyset Alpo.

The issue here is that (46a), for example, has a reading in which the modal *can’t* scopes over conjunction (‘it’s not possible for Mrs. J to live in NY and Mr. J to live in LA at the same time’). This is puzzling, since such a reading wouldn’t be predicted on the (initially plausible) assumption that Gapping sentences would be interpreted by simply supplying the meaning of the missing material in the right conjunct.

Kubota & Levine (2014; 2016a) note some difficulties for earlier accounts of Gapping in the (H)PSG literature (Sag et al. 1985; Abeillé et al. 2014) and argue for a constituent coordination analysis of Gapping in TLCCG, building on earlier analyses of Gapping in CG (Steedman 1990; Hendriks 1995b; Morrill & Solias 1993). The key idea of Kubota & Levine’s analysis involves taking Gapping as coordination of clauses missing a verb in the middle, which can be transparently represented as a function from strings to strings of category $S \downarrow ((NP \backslash S)/NP)$:

- (47) $\lambda\phi.\text{leslie} \circ \phi \circ a \circ \text{cd}; \lambda R.\exists x.\text{cd}(x) \wedge R(x)(I); S \downarrow ((NP \backslash S)/NP)$

A special type of conjunction entry (prosodically of type $(\text{st} \rightarrow \text{st}) \rightarrow (\text{st} \rightarrow \text{st}) \rightarrow (\text{st} \rightarrow \text{st})$) then conjoins two such expressions and returns a conjoined sentence missing the verb only in the first conjunct (on the prosodic representation). By feeding the verb to this resultant expression, a proper form-meaning pair is obtained for Gapping sentences like those in (45).

The apparently unexpected wide scope readings for auxiliaries and quantifiers in (46) turn out to be straightforward on this analysis. I refer the interested

Kubota & Levine (2020) for a response to Park et al. (2019).