

Robert D. Levine & Thomas E. Hukari, *The unity of unbounded dependency constructions* (CSLI Lecture Notes 166). Stanford, CA: Center for the Study of Language and Information, 2006. Pp. x + 406.

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Robert Levine and Thomas Hukari are well known for their contributions to Head-driven Phrase Structure Grammar (HPSG), and this framework is the main theoretical point of reference in the volume under review. Researchers within other frameworks may well think that the book is of no relevance to them. This would be unfortunate. While some parts of the book address technical issues within HPSG, much of the discussion is concerned with issues that arise in some form in any theoretical framework. The central thesis of the book is that there is a single connectivity mechanism involved in all unbounded dependencies. This is a position that has been rejected in a variety of work, including work in mainstream Chomskyan syntax. Levine & Hukari subject the arguments that have been advanced against this position to detailed scrutiny. They argue that various proposals have been based on an insufficiently careful assessment of the facts and a mistaken assumption that grammatical factors are responsible for acceptability judgements which are more plausibly attributed to processing and pragmatic factors. The argument is an important one which deserves the attention of anyone interested in unbounded dependencies.

The book consists of seven chapters, plus an afterword and an appendix. It begins with an introductory chapter called 'Extraction in Head-driven Phrase Structure Grammar'. The remaining chapters fall into two parts: part I, 'Extraction: Unitary across \bar{X} positions', which consists of a chapter on 'Subject extraction' (chapter 2) and a chapter on 'Adjunct extraction' (chapter 3), and part II, 'Extraction: Unitary across constructions', which consists of chapters on the distribution of gaps, islands, weak crossover, and the syntax of missing object constructions. In spite of its title, the first chapter is not just concerned with issues in HPSG but also includes some important discussion of multiple gap constructions. Part I has HPSG as its main focus but also includes some discussion which should be of interest to researchers in other frameworks. Part II is largely theory-neutral.

In chapter 1, Levine & Hukari outline the HPSG approach to unbounded dependency constructions, in which they are the product not of movement but of the SLASH feature, which makes information about gaps available higher in the structure. They consider how a number of unbounded dependency constructions can be accommodated in this approach, and look in some detail at multiple gap constructions, where two or more gaps are linked

to a single filler. This includes both examples with a so-called parasitic gap and examples involving an across-the-board dependency. The authors note that it would be a problem for the SLASH-based approach if multiple gap constructions did not exist but that these constructions pose a major challenge for movement-based approaches.

A central claim of the chapter is that there is no fundamental distinction between parasitic and ‘ordinary’ gaps, contrary to what is commonly assumed. One argument for such a distinction involves what Levine & Hukari call the Kearney paradigm, discussed in *Barriers* (Chomsky 1986) and illustrated in (1).

- (1) (a) Which books about himself did John file ___ before Mary read ___?
 (b) *Which books about herself did John file ___ before Mary read ___?

It looks here as if the filler can behave as if it were in the first (ordinary) gap but not in the second (parasitic) gap. This appears to suggest that there is an important distinction between the two gaps. However, Levine & Hukari point out that the parasitic gap may be crucial for anaphoric phenomena if the parasitic gap precedes the ordinary gap. The following is a relevant example:

- (2) There are pictures of herself which once Mary gets used to __ John wants to put ___ into circulation.

Levine & Hukari also highlight examples involving what they call symbiotic gaps, pairs of gaps which are both in positions assumed to allow only parasitic gaps. Consider the following:

- (3) What kind of books do authors of ___ argue about royalties after writing ___?

The sentence in (3) has one gap within a subject and the other within an adjunct. Gaps in these positions are traditionally viewed as parasitic gaps, but (3) seems quite good and considerably better than examples with a gap in just one of these positions, as illustrated in (4).

- (4) (a) ??What kind of books do authors of malicious pamphlets argue about royalties after writing ___?
 (b) *What kind of books do authors of ___ argue about royalties after writing malicious pamphlets?

In chapter 2, Levine & Hukari argue that subject and complement gaps are broadly similar, contrary to much work in HPSG and the earlier Generalized Phrase Structure Grammar framework. Interestingly, subject and complement gaps have been distinguished in quite different ways in different HPSG works. In Pollard & Sag (1994), complement gaps involve an empty category but subject gaps do not. Instead, what looks like a clause with a

subject gap is analyzed as a bare Verb Phrase (VP). In Bouma, Malouf & Sag (2001), no empty categories are assumed, but complement and subject gaps are still distinguished. Complement gaps are represented only in the value of the ARG-ST (ARGUMENT-STRUCTURE) feature, while subject gaps are represented both in the value of the ARG-ST feature and in the value of the SUBJ (SUBJECT) feature. Thus, complement gaps have a more concrete status than subject gaps in earlier HPSG work but a less concrete status in later work.

Contrasts like the following might suggest that subject and complement gaps are rather different:

- (5) (a) *Who do you think that ___ gave a book to Leslie?
 (b) What do you think that Leslie gave ___ to Robin?

However, the acceptability of examples like (6) calls this assumption into question.

- (6) Who did you say that tomorrow ___ would regret his words?

Levine & Hukari show that subject gaps are like complement gaps in various respects. In particular, in languages which show binding domain effects – morphosyntactic phenomena distinguishing clauses which are parts of a pathway linking a filler and a gap from clauses which are not – they arise in the same way with subject gaps and complement gaps. Subject gaps also license parasitic gaps in the same way as complement gaps, as (7) illustrates:

- (7) Robin is someone [who [until you get to know ___] ___ can seem quite strange].

Levine & Hukari go on to argue that what is problematic about examples like (5a) is not that *that* is immediately followed by a gap but that the first visible element following *that* is a finite verb. They highlight examples like the following:

- (8) Robin is someone who I suspect that merely has to nod his head to get his enemies to disappear without a trace.

Here *that* and the finite verb *has* are separated by the adverb *merely*. This is an adverb that cannot appear in a pre-subject position, as (9) shows.

- (9) *Merely Robin has to nod his head.

Thus, in (8), *that* is immediately followed by a gap but the example is quite good. Levine & Hukari conclude the chapter by spelling out three different ways in which a unified account of complement and subject gaps might be provided within HPSG: two analyses in which there is nothing corresponding to a gap in constituent structure, and one in which gaps contain empty categories.

Chapter 3 investigates adjunct extraction and especially the approach to adjunct extraction developed in Bouma et al. (2001), in which adjuncts are analyzed as extra complements and adjunct extraction is just like complement extraction. Levine & Hukari use what they call cumulative scoping adverbials to argue against this position. The following are relevant examples:

- (10) (a) Robin came in, found a chair, sat down, and whipped off her logging boots in fifteen seconds flat.
 (b) In how many seconds flat did Robin find a chair, sit down and whip off her logging boots?

In (10a) it is the three actions of finding a chair, sitting down and whipping off the logging boots together which took fifteen seconds flat, and in (10b) the question is how long these three actions together took, i.e. the adjunct modifies the entire coordinate VP in both (10a) and (10b). The authors consider various attempts to reconcile the adjuncts-as-complements approach with such examples and argue that they are unsatisfactory. They conclude by arguing that adjunct extraction provides some support for the view that gaps are empty categories.

In part II, Levine & Hukari argue at length against the thesis, developed in Cinque (1990), Postal (1994) and elsewhere, that there are two different types of unbounded dependencies: a standard type, involving A'-movement within transformational grammar, and a second type, involving a null resumptive pronoun. For Postal, the second type is found in topicalization, non-restrictive relatives, missing object constructions and parasitic gaps. In chapter 4, 'UDCs [unbounded dependency constructions] and antipronominal environments', Levine & Hukari investigate the prediction that gaps in the second type of example may not appear in what Postal calls antipronominal environments, i.e. environments which do not allow a pronoun. Among the many such environments which Postal identifies are temporal Noun Phrases (NPs), associates, and proper names, as in (11).

- (11) (a) *He is going to stay the next two weeks in Greece
 but I am going to stay them in Spain.
 (b) *There is it on the table.
 (c) *He named his daughter Lucille, but I didn't name mine it.

Levine & Hukari cite the examples in (12) as evidence that topicalization is not excluded from antipronominal environments.

- (12) (a) A week you get to stay in Ireland ____, no more!
 (b) Plans to intervene there definitely were ____ in some echelons of the Joint Chiefs of Staff.
 (c) ... but Fauntleroy, I just don't see how ANYONE could nickname their cat ____!

They provide similar evidence that unbounded dependencies may affect antipronominal environments in non-restrictive relatives and missing object constructions. They also show with examples like the following that parasitic gaps are not confined to NPs.

- (13) (a) That's the kind of table on which it would be wrong to put expensive silverware ___ without also putting a fancy centerpiece ____.
 (b) I wonder just how nasty you can pretend to be ___ without actually becoming ____.

They consider various ways of trying to maintain that such examples are not what they appear to be and argue that all of these approaches are unsatisfactory.

In chapter 5, 'UDCs and islandhood', Levine & Hukari investigate attempts to show that island constraints provide evidence for two distinct types of unbounded dependency. They argue that 'island effects ... do not reflect syntactic conditions. Rather, they reflect a multifaceted interaction among extragrammatical factors, including pragmatic plausibility, processing complexity, and discourse coherence' (243). Following Kluender (1998, 2004), Levine & Hukari argue that island effects 'arise as the result of processing failures in syntactically well-formed structures under exactly the same conditions that lead to the collapse of processing in clearly unobjectionable configurations, in particular center-embedding' (259f.). They show with the examples in (14) and (15) that manipulation of lexical content can significantly improve both centre-embedding constructions and strong islands such as complex NPs.

- (14) The woman [someone [he knew ___] brought] left.
 (15) Which article do you need to find someone [who can understand ___]?

They also argue, highlighting examples like those in (16), that extraction from weak islands is dependent on the plausibility of necessary background assumptions.

- (16) (a) *How much didn't you pay?
 (b) How much didn't you pay that you were supposed to?

The authors go on to argue that there is no evidence that extraction from weak islands is limited to NPs, as Postal predicts. Chapter 5 also considers extraction from coordinate structures.

In chapter 6, 'UDCs and weak crossover', Levine & Hukari focus on Lasnik & Stowell's (1991) investigation of constructions which do and do not show weak crossover effects. They argue that it is the nature of the filler and not the nature of the gap that accounts for the distribution of weak crossover effects.

Finally, in chapter 7, ‘The syntax of missing object constructions’, the authors consider examples such as the following:

(17) Mary is easy for John to please.

They argue against the common assumption that *for John* is a Prepositional Phrase (PP) followed by a separate infinitival constituent. Among other things, they draw attention to examples like (18).

(18) How easy do you think Robin will be for us to please?

Here, *for us to please* is apparently an extraposed clause, which means that *for us* cannot be a PP. Levine & Hukari go on to argue that certain features of the construction mean that the subject of the *for*-clause must be visible outside that clause. They contend that this is something which is found elsewhere, e.g. in the so-called Richard construction, exemplified by (19).

(19) There looks like there is going to be rain.

There is much more in this book than indicated in the preceding discussion. I have summarised the main arguments, and they seem to me to be quite persuasive. Of course, the issues discussed warrant further consideration and elaboration. For example, Levine & Hukari have nothing to say about unbounded dependencies with a resumptive pronoun. Are they the product of the same mechanism as unbounded dependencies with a gap or do they involve a different mechanism? There are also methodological questions. Like those whose proposals they criticize, Levine & Hukari employ the traditional methodology of informal investigations of speakers’ intuitions. It is likely, however, that other methodologies, especially experimental methodologies of various kinds, can shed some light in this area. Some work which is relevant here is that of Sag, Hofmeister & Snider (forthcoming), which presents experimental evidence for the view that Complex Noun Phrase Constraint effects are the result of processing factors and not some grammatical constraint. It seems likely that the future will see a lot of work of this kind. However, what Levine & Hukari show in this book is that the traditional methodology can still make a major contribution to the understanding of syntactic phenomena. In my view, their book is an important one, which should be a major point of reference for future work on unbounded dependencies both in HPSG and in other frameworks.

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Although a bread-and-butter concept in linguistics since antiquity, finiteness continues to be rather poorly understood. Traditionally, there are essentially two ways to define this concept, viz. via inflectional or distributional criteria. Confronted with cross-linguistic variation in what categories actually express finiteness under either perspective, more abstract notions of finiteness now view it as a clausal category or a semantic property of clauses (expressing an independent concept, propositionality or assertion). In the ‘Introduction’ (chapter 1), the editor, Irina Nikolaeva, outlines the aims of the collection. The main question uniting the eleven contributions to the volume is whether finiteness can and should be regarded as a primitive and cross-linguistically valid and uniform concept.

The formalist chapters in part I, ‘Finiteness in formal theories’, answer this question by separating the abstract notion of finiteness as a property of clauses from its morphosyntactic instantiations. The abstract clausal feature is regarded as universal, and the relation to its morphosyntactic realisation is arbitrary. In chapter 2, ‘Three domains of finiteness: A Minimalist perspective’, David Adger adopts Rizzi’s (1997) Fin, a functional head low in the CP (Complementiser Phrase) domain of the clause, which is associated with an interpretable feature [\pm finite]. Features traditionally associated with finiteness, [T] (Tense) and [Agr] (Agreement), can also be reflected on Fin, but are to be distinguished from [\pm finite]. Adger discusses evidence from Scottish Gaelic, showing that some types of infinitival clauses must be analysed as truncated below CP, some at the TP level, some as low as the V(erb)P (or rather, Pred(icate)P) level. They nevertheless license certain types