Outline of the chapter on the lexicon

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1 Introduction

This chapter discusses the critical role the lexicon plays in HPSG and the approach to lexical knowledge that is specific to HPSG.

2 Lexicalism

2.1 Lexicalism and the origins of HPSG

In this section, we provide a brief discussion of the origins of lexicalism from Jackendoff's use redundancy rules to LFG's approach to lexicalism and the emerging critical role of the lexicon in constraint-based theories of grammar.s

2.2 What are lexical entries?

One of the misunderstandings about lexical knowledge is that it confuses descriptions and what is being described or the distinction between constructions and constructs (lexical entry vs. fully instantiated lexeme). In this section, we present this critical distinction.

2.3 What information is in lexical entries and what role they play in HPSGG

what information is in lexical entries?

The lexicon plays a critical role in HPSG's explanatory mechanisms. The focus on the lexicon on one important locus of explanation goes back to Lakoff's dissertation and the notion of lexically-bounded transformations or Relational Grammar's *lexical* approach to grammatical functions. We will illustrate the explanatory role of constraints on lexical entries in a brief

discussion of HPSG's binding theory (referring for details on the chapter on binding.

2.4 Lexical vs. constructional explanations

In this section, we discuss how HPSG's approach to lexical knowledge differs both from theories where all explanations are placed in phrase-structure rules of constraints (from Construction Grammar to Distributed Morphology) and to theories that are lexical, but where the lexicon looks different (Categorial Grammar).

3 The hierarchical lexicon

3.1 Inheritance

In this section we define and discuss multiple inheritance and the issue of defaults and overrides and provide examples of the role both can play in HPSG analyses.

3.2 The lexicon as repository of generalizations at various levels

The hierarchical lexicon makes it possible to specify constraints on classes of lexical entries at any level, not just, e.g., all nouns, or a single word. We'll illustrate this with examples drawn from morphology, linking constraints, and/or diathesis alternations.

4 Lexical rules

In this section we describe the role lexical rules play in HPSG as well as their formal nature, i.e., how they model "horizontal" relations among elements of the lexicon, as opposed to the "vertical" relations modeled through inheritance and provide ways to represent the intuitive notion of "derivation" of one lexeme from another. We mention their implementation as unary branching rules as well as the use of lexical rules for semantic type shifts. Finally, we discuss "practical" issues that arise when using lexical rules, e.g. what must be specified in the rule or how do we know when a rule "applies"?

The question of whether lexical rules are inherently "directional", with one form necessarily "derived" from the other, will be briefly considered as

well. (It's not obvious, for instance, whether the inchoative or the causative alternant of a verb is more basic, or if neither is.)

4.1 Phenomena accounted for by lexical rules

In this section, we describe some of the uses lexical rules have been put to over the years, e.g., derivational and inflectional morphology, clitics, complex predicate formation, diathesis alternations, extraction and unbounded dependencies.

The use of lexical rules in HPSG has extended beyond what are traditionally or evidently viewed as lexical phenomena, to include treatments of extraction, unbounded dependencies, and adjuncts. This raises the question: what are the limits of this approach? This has become a matter of debate between advocates of constructional, as opposed to lexical, approaches to these phenomena.

4.2 Alternatives to lexical rules

In this section we briefly present possible alternatives to lexical rules, e.g., on-line type construction and its recent use in modeling inflectional morphology (referring to the chapter on morphology).