# HPSG and categorial grammar

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#### 1 Introduction

HPSG and CG aren't as different from each other as HPSG and minimalism are, but they aren't as similar to each other as HPSG and LFG are. For this reason, comparing HPSG and CG seems to be a rather tricky task, but at the same time, this means that there are both interesting similarities and interesting differences that are worth discussing, and, hopefully, one can gain some useful insights by a careful comparison. The goal of this chapter is to provide some points of comparison so that the reader can by themselves formulate their own perspective on what the relation is between these two grammatical theories.

#### 2 Two varieties of CG

CG is actually not a monolithic theory (or, it's less of a monolithic theory than HPSG or LFG), but is a family of related approaches, so, I will start my discussion by sketching some important features of two major varieties of CG, CCG and Type-Logical Grammar.

### 3 Architectural similarities and differences

#### 3.1 Broad architecture

HPSG share many ideas with CCG, including the following:

- lexicalism
- encoding of valence in syntactic categories
- 'slash'-based analysis of extraction

I'll explain in what respects HPSG and the two varieties of CG are similar and different in these respects.

### 3.2 Syntax-semantics interface

As far as the syntax-semantics interface goes, the difference between the two varieties of CG seems to almost vanish. HPSG and CG seem to contrast with each other in the following respect:

- transparent, but very rigid syntax-semantics mapping in CG
- heavy use of underspecification in HPSG

Cf. Chapter 23.

## 3.3 Morpho-syntax and word order

Linearization HPSG (Reape, Kathol) vs. multi-modal CG (Moortgat/Oehrle, Baldridge)

Are these similar/related? If so, how? Or are these fundamentally different?

Cf. Chapter 9.

#### 3.4 Relation to computational linguistics

I'm not a specialist on this issue, but perhaps some briefly comments are in order, given that both theories have strong affinity to computational linguistics?

Cf. Chapter 28.

# 4 Specific empirical phenomena

I'll try to compare proposals on some of the major/popular empirical phenomena in HPSG and CG:

- long-distance dependencies
- coordination
- ellipsis
- complex predicates

Perhaps trying to do all these four would be an overkill. Crossreference is obviously needed to the chapters in Part II (11, 12, 13, 19). I want to cover at least long-distance dependencies and coordination, since these two phenomena seem to illustrate the potential 'strengths' and 'weaknesses' of HPSG and CG particularly well.

In any event, my goal here is not to argue for the superiority of any particular approach over others, but simply to provide a reasonably complete sketch of the state of the art of research in these empirical domains in HPSG and CG, with an up-to-date bibliographical reference.

Since both HPSG and CG are complex theories, researchers working in one or the other theory sometimes seem to be unaware of the development of research in the other theory. My goal in this section is to help such readers identify at least some of the key literature that they may otherwise be overlooking.

#### 5 Conclusion