

Types and Sorts

Resource Logic for Feature Checking

In computational linguistics, feature structures, and the languages to describe them, play a prominent role. Feature structures are used to cross-classify expressions in different grammatical dimensions. Generalisations can be expressed by using underspecified descriptions and by factoring information into separate principles.

The main thesis of this book is that current multimodal categorial grammar offers an interesting alternative to feature-based grammar architectures when it comes to featural information and its grammatical manipulation. The categorial vocabulary had the required expressivity to encode this type of information. Moreover, the derivational engine of type-logical grammar can directly exploit the built-in economy principles of the grammatical resource logic, thus providing ways of handling featural information computationally.

The book shows how a family of unary type-forming operators can be used to encode morphosyntactic information. The logical rules for these operators define a feature checking procedure whereas the structural rules define inclusion relations, used for underspecification, and feature distribution principles. This approach is compared to analyses in HPSG and the feature checking procedure in minimalist grammars.

To make the book accessible to a wider audience interested in the application of logical techniques in (computational) linguistics, an introduction to the type-logical framework is included.

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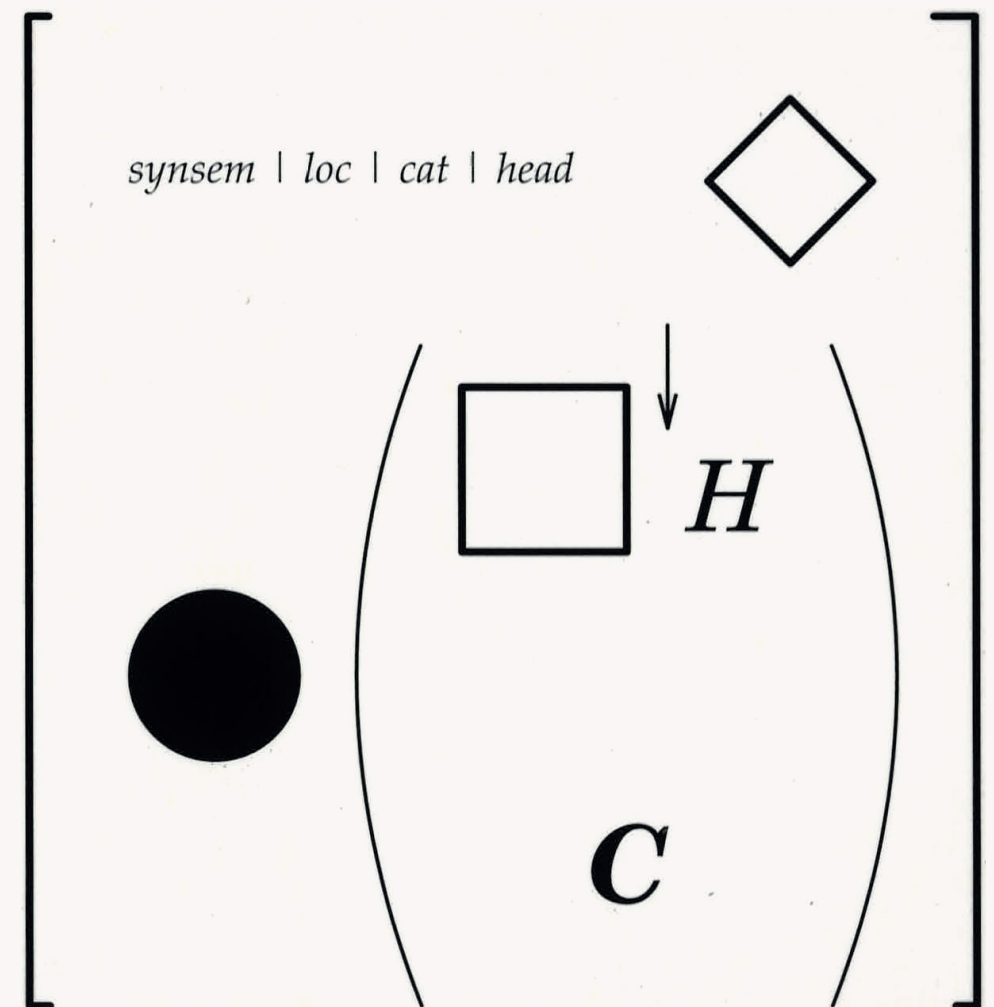
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