

# The Multiplicity of Meanings in Cognitive and Semantic Perspectives

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## Abstract

This article examines polysemy, a phenomenon where words have multiple related meanings, across various languages including English, Russian, Uzbek, and Tajik. It synthesizes views from scholars like T. Georgakopoulos, Grinev-Griniewich, and R. Carston, emphasizing cognitive, semantic, and pragmatic aspects of polysemy. The research explores how polysemy complicates the mental lexicon, necessitates contextual disambiguation, and is influenced by cultural and structural language differences. It discusses the challenges of representing polysemous words in dictionaries, their implications for language learning, and the hurdles they present in natural language processing. The article also highlights the importance of understanding rule-based and resemblance-based polysemy, and the role of pragmatic inference in interpreting meanings. This comprehensive analysis of polysemy underscores its significance in understanding cognitive processes, language evolution, and cultural diversity.

**Keywords:** Polysemy, cognitive linguistics, semantic derivation, pragmatic inference, language processing, lexical semantics, cross-linguistic comparison.

## Introduction

The multifaceted nature of polysemy, a linguistic phenomenon where a single word possesses multiple related meanings, presents a rich field of study across various languages. This article delves into the intricate world of polysemy, exploring its cognitive, semantic, and pragmatic dimensions. Drawing from the insights of scholars like T. Georgakopoulos, Grinev-Griniewich, R. Carston, and others, the article navigates through the complexities of polysemy in languages such as English, Russian, Uzbek, and Tajik. It examines the cognitive processes underlying language comprehension and production, the role of cultural and structural differences in shaping polysemy, and the challenges it poses for language learners and natural language processing (NLP).

Polysemy, as a linguistic phenomenon, is defined and explored by various scientists, each offering unique perspectives. T. Georgakopoulos views polysemy as the condition where a linguistic unit exhibits multiple distinct yet related meanings, a concept deeply rooted in cognitive linguistics and lexical semantics. Grinev-Griniewich expands on this by suggesting that polysemy, or "polysemantism" as he terms it, includes various forms such as regular polysemy, hyponymic polysemy, and consubstantivety, along with interlingual hidden polysemy and artificial polysemy, highlighting its complexity in language and thought (Grinev-Griniewicz, S. V., 2016). From a cognitive perspective, polysemy is a universal linguistic phenomenon where a single English word

has multiple meanings, emphasizing the challenges it poses for English learners due to linguistic economy. R. Carston describes polysemy as instances where a single linguistic expression has multiple related senses, distinguishing between regular (rule-based) and irregular (resemblance-based) cases, and underscoring the influence of pragmatic inference and syntactic meaning in its development (Carston, R., 2021).

In the exploration of cognitive models of polysemy in linguistic terms, particularly in English, Uzbek, and Russian languages, recent studies have provided significant insights. The phenomenon of polysemy, where a single word can have multiple related meanings, is a crucial aspect of understanding cognitive processes in linguistics. Dalieva's research delves into the semantic derivation and polysemy in English, Russian, and Uzbek terminologies (Dalieva, 2022). It underscores the importance of understanding the concept of polysemy across different languages, highlighting the similarities and differences in the manifestation of this linguistic phenomenon.

In a similar vein, Daler Zayniev's investigation into the polysemy of the color term 'white' across English, Russian, Tajik, and Uzbek languages provides an intriguing perspective on how polysemy is represented in various linguistic contexts (Zayniev, 2019). Zayniev's work, focusing on a semasiological perspective, reveals the complexities involved in the lexicological and lexicographical representation of polysemous terms. Furthermore, V. Stepanova's research on cognitive modeling of kinship terms in Russian and English languages offers a deep dive into the cognitive structures underlying language (Stepanova, 2019). Inspired by G. Lakoff's approach, Stepanova's work emphasizes the significance of categorization and classification in understanding and conveying information.

The work of T. Romanova and O. N. Kolchina on Russian cognitive terms in scientific discourse sheds light on the integration processes of commonly used vocabulary into cognitive terminological systems (Romanova & Kolchina, 2022). Their analysis of Russian lexemes like 'knowledge' and 'consciousness' reveals the nuances of semantic components and systemic connections within cognitive linguistics.

Let's consider several key aspects of cognitive processing of polysemy:

**Mental Lexicon Complexity:** Polysemy adds layers of complexity to the mental lexicon. Understanding how the brain categorizes and retrieves different meanings of a polysemous word is a significant challenge. This involves studying neural pathways and cognitive processes involved in language comprehension and production.

**Contextual Disambiguation:** The ability of speakers and listeners to disambiguate the intended meaning of a polysemous word based on context is a crucial area of study. This involves understanding the cognitive strategies employed for rapid and efficient meaning retrieval.

Different cultures may influence the development of polysemous meanings in unique ways. For instance, the way emotion terms are polysemous in English and Russian might reflect differing cultural attitudes and experiences with emotions. Languages have different structures (e.g., morphology, syntax), which can affect how polysemy is manifested and processed. Comparative studies, like Ivanova's work on Slavic motion verbs, shed light on these structural impacts. In Russian, the word "свет" (svet) means both "light" and "world," reflecting a cultural and philosophical perspective where light is metaphorically associated with life and the world. The

word "head" can refer to the body part or to a leader (as in "head of the department"). The latter is an example of metaphorical extension, a common source of irregular polysemy. Consider the word "cold." It can describe temperature, a relationship ("a cold person"), or a health condition (having "a cold"). Pragmatic inference helps determine the intended meaning based on the situation.

Understanding the distinction between rule-based and resemblance-based polysemy (as noted by R. Carston) is crucial. This involves exploring how semantic networks are organized and how they evolve over time. The role of pragmatic inference in interpreting polysemous words is a key area of study. This includes how speakers use contextual cues and shared knowledge to convey and interpret meanings. Compiling dictionaries that adequately represent polysemous words is a challenge. This includes deciding how many and which meanings to include and how to effectively illustrate the relationships between them. For language learners, polysemy presents unique challenges in vocabulary acquisition and usage. Understanding how learners navigate these challenges can inform language teaching methodologies.

In the realm of NLP, accurately modeling polysemy for tasks like machine translation and sentiment analysis is a significant challenge. This involves developing algorithms that can contextually interpret and generate polysemous words. Investigating how meanings of polysemous words shift over time can provide insights into the evolution of language and culture. This includes studying historical linguistics and language change phenomena.

Polysemy, as a linguistic phenomenon, is a testament to the dynamic and intricate nature of human language and cognition. The exploration of polysemy across different languages and cultures reveals not only the complexity of linguistic structures but also the cognitive processes involved in language comprehension and production. The studies discussed in this article highlight the importance of context, cultural nuances, and cognitive strategies in understanding and interpreting polysemous words. Furthermore, the challenges polysemy presents in areas like language learning and NLP underscore the need for continued research and innovative approaches in linguistics and computational language modeling.

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