In the context of Natural Language Processing (NLP), lexical semantics is a subfield that focuses on the study of word meanings and their relationships. It delves into how words convey meaning, how their meanings change in different contexts, and how the meanings of words relate to each other. Lexical semantics is foundational for understanding and processing human language in computational systems, as it addresses several key components:

1. **Word Sense Disambiguation (WSD):** This involves identifying which meaning of a word is used in a given context, considering that many words have multiple meanings (polysemy).

2. **Semantic Relations:** Understanding and identifying relationships between words, such as synonyms (words with similar meanings), antonyms (words with opposite meanings), hyponyms (specific instances of a more general term), and hypernyms (general terms that encompass more specific instances).

3. **Semantic Roles and Argument Structure:** Analyzing how the meanings of verbs relate to their arguments (the entities that participate in the action or state described by the verb) and understanding the roles these entities play. For example, in "The cat sits on the mat," "the cat" is the agent performing the action of sitting, and "the mat" is the location where the action occurs.

4. **Compositionality:** Examining how the meaning of a complex expression (like a phrase or sentence) is determined by the meanings of its constituent expressions and the rules used to combine them. This principle is crucial for parsing and understanding longer stretches of text.

5. **Polysemy and Homonymy:** Dealing with words that have multiple meanings (polysemy) and words that sound the same but have different meanings (homonymy), which is essential for accurate interpretation and translation of texts.

Lexical semantics plays a critical role in various NLP applications, including machine translation, information retrieval, question answering, and sentiment analysis. By providing a deeper understanding of word meanings and relationships, lexical semantics enables more effective and nuanced processing of natural language texts.