

The Impact of Semantic Inference Ability on Discourse Comprehension Among Japanese Language Learners

Ruopu Wang

Shandong University of Arts, Jinan,
Shandong, China
luopwww@stu.hebmu.edu.cn

Abstract:

Semantic inference ability plays a pivotal role in discourse comprehension for Japanese language learners, serving as a bridge between linguistic input and meaningful interpretation. Although this topic has garnered significant attention in second language acquisition research, the specific cognitive and linguistic mechanisms of its influence on discourse comprehension, as well as the differences among learners with diverse native languages, remain underexplored. This study examines the relationship between semantic inference ability and other influencing factors, while also addressing how cultural differences arising from varying native language backgrounds manifest in the research. The findings reveal a multidirectional interaction among semantic inference ability, lexical knowledge, and grammatical knowledge, collectively shaping discourse comprehension outcomes. For learners with different native languages, effective pedagogical interventions and strategy training can help leverage individual strengths to enhance semantic inference efficacy. In conclusion, this study highlights the significance of semantic inference in Japanese learners' discourse comprehension, offering new perspectives and pathways for future teaching and research.

Keywords: Japanese language learners; semantic inference ability; discourse comprehension; cultural background; pedagogical implications

1. Introduction

With the rise of globalization and the information age, Japanese, as a key lingua franca in East Asia, has attracted widespread scholarly attention worldwide. Discourse comprehension plays a pivotal role in lan-

guage proficiency, directly influencing learners' ability to accurately process information and engage in communication. This study systematically examines the semantic inference ability of Japanese language learners, delving into its underlying mechanisms in discourse comprehension to provide both theoretical

and practical insights for Japanese language pedagogy. Research indicates that semantic inference ability encompasses multiple dimensions, including the comprehension and application of lexical semantics, the grasp of logical relationships between sentences, and the construction of coherent textual meaning [1]. Beyond mere vocabulary accumulation, this ability hinges critically on contextual reasoning--the capacity to infer logical connections within discourse, which profoundly impacts reading comprehension and textual coherence. It serves as an indispensable bridge in linking information points, deciphering implied meanings, and constructing a holistic understanding of Japanese texts.

Furthermore, Japanese learners' semantic inference ability is shaped by a confluence of factors, including linguistic knowledge, cognitive skills, and learning backgrounds, leading to observable variations across different native language groups. Comparative analyses suggest that due to the structural and pragmatic similarities between Chinese and Japanese, native Chinese speakers often exhibit heightened sensitivity to semantic cues in Japanese, enabling more efficient contextual inference [2]. In contrast, native English speakers, facing greater cross-linguistic interference, typically require extended learning periods and targeted strategies to enhance their discourse comprehension. By acknowledging these cultural-linguistic disparities and implementing tailored pedagogical interventions, learners can refine their semantic analysis and inference skills, thereby achieving multidimensional mastery of Japanese and greater fluency in cross-cultural communication.

A deeper investigation into the mechanisms and potential variations of semantic inference in Japanese discourse comprehension holds significant implications for optimizing teaching methodologies and fostering learners' cross-cultural adaptability. Against this backdrop, this study synthesizes and analyzes the aforementioned factors to delineate the intricate relationship between Japanese learners' semantic inference ability and discourse comprehension, aiming to uncover underlying patterns and address gaps in current research.

2. Definition of Core Concepts

2.1 Semantic Inference Ability

In contemporary Japanese language acquisition research, learners' semantic inference ability is recognized as a critical cognitive tool that significantly influences discourse comprehension. Studies define this ability as a learner's capacity to deduce implicitly conveyed meanings during reading or listening tasks by leveraging prior knowledge

and contextual cues. At its foundational level, semantic inference ability can be categorized into lexical inference ability and structural inference ability. The former focuses on inferring unfamiliar word meanings through contextual clues, while the latter emphasizes understanding logical relationships between sentences and paragraphs via discourse structure. Japanese learners employ both explicit and implicit textual information to make inferences and predictions, thereby constructing a coherent understanding of the discourse [1].

Akasaki Kiyotaka's research highlights that semantic inference ability plays a decisive role in building situational models and integrating textual information, profoundly shaping the depth and breadth of comprehension [3]. Moreover, with the evolution of technology and information dissemination, the diversification of Japanese online discourse has further amplified the importance of this skill. Learners must now navigate complex contexts to perform effective semantic inferences, ensuring optimal discourse comprehension. Recent studies on multimodal Japanese teaching materials reveal that integrating multimodal information enhances semantic inference strategies, subsequently improving overall comprehension efficiency [3]. In summary, academic consensus underscores the indispensable role of semantic inference ability in Japanese learners' discourse processing.

2.2 Discourse Comprehension Efficacy

Discourse comprehension efficacy reflects Japanese learners' holistic capacity to process and interpret textual information. Its proficiency level not only mirrors learners' cognitive and critical thinking skills but also serves as a key indicator of pedagogical outcomes in Japanese language education. Specifically, advanced discourse comprehension enables learners to move beyond literal meaning interpretation, allowing them to infer authorial intent, discern textual structure, and capture implicit information [4].

The emphasis on discourse comprehension efficacy stems from its centrality in Japanese language application--particularly in resolving ambiguities and navigating complex contexts, where it demonstrates a learner's linguistic logic and cultural awareness. Research indicates that enhancing this efficacy deepens understanding of intra-linguistic structures and fosters the development of language-use skills [4]. Crucially, effective semantic inference within discourse is a pivotal step toward achieving comprehension and information retention, requiring learners to transcend superficial lexical knowledge and engage with deeper linguistic nuances [3]. Thus, semantic inference ability emerges as a vital determinant of discourse com-

prehension efficacy, exerting a measurable impact on Japanese learners' reading proficiency and expressive abilities.

3. The Impact of Semantic Inference Ability on Japanese Learners' Discourse Comprehension and Factor Analysis

3.1 The Interplay Between Semantic Inference and Other Key Factors

Synthesized research underscores that semantic inference ability is indispensable for Japanese learners' discourse comprehension, interacting dynamically with lexical knowledge, grammatical proficiency, and other factors to shape overall understanding. During semantic inference, learners integrate acquired vocabulary and grammatical structures to logically deduce implicit meanings and intertextual connections. Comparative analyses reveal that learners with advanced semantic inference skills consistently outperform peers in processing complex sentence structures and ambiguous contexts [1].

Notably, studies demonstrate that enhancing semantic inference ability directly improves discourse comprehension outcomes [1]. This relationship becomes more pronounced once learners' vocabulary reaches a critical threshold [5]. Semantic inference relies on recognizing lexical polysemy, contextual implications, and discourse logic; thus, the breadth and depth of lexical knowledge, coupled with precise grasp of syntactic patterns, are pivotal. While lexical knowledge provides foundational linguistic material, grammatical mastery facilitates the decoding of implicit information.

Intriguingly, case studies indicate that learners employing high-level inference strategies can compensate for gaps in vocabulary or grammar by leveraging contextual cues and extralinguistic knowledge, achieving satisfactory comprehension even with incomplete linguistic resources [3, 5]. This evidence suggests a multidirectional interaction—rather than a unidirectional causal link—among semantic inference ability, lexical knowledge, and grammatical knowledge, collectively determining discourse comprehension success.

3.2 Cross-Linguistic Variations: How Native Language Modulates Semantic Inference's Impact

The role of native language (L1) in shaping Japanese learners' discourse comprehension has garnered significant scholarly attention. Empirical studies highlight stark

heterogeneities in how semantic inference ability affects comprehension across L1 groups, particularly between Chinese and English speakers.

Japanese, as a language with hybrid analytic-synthetic typology, poses unique challenges in discourse structure and semantic cohesion. Research suggests that Chinese-speaking learners exhibit stronger semantic inference skills, likely due to shared syntactic features (e.g., topic-prominence, null arguments) between Chinese and Japanese, enabling faster detection of implicit information and logical ties [6]. In contrast, English-speaking learners, whose L1 is predominantly analytic, face higher cognitive load when processing Japanese synthetic structures (e.g., agglutinative morphology), resulting in slower and less accurate inferences. These disparities influence not only comprehension speed but also depth of understanding.

Furthermore, investigations into cultural background knowledge and situational inference reveal divergent performance patterns among L1 groups [7]. For instance, kanji literacy grants Chinese speakers an advantage in inferring meanings of Sino-Japanese vocabulary, whereas English speakers may rely more on metalinguistic strategies.

Critically, pedagogical interventions can mitigate these differences. Targeted strategy training (e.g., contextual clue analysis, discourse marker emphasis) has proven effective in elevating semantic inference ability and overall comprehension across all L1 groups [5]. These findings advocate for differentiated instruction tailored to learners' L1 profiles—for example: Chinese speakers: Focus on overcoming false cognates and pragmatic nuances. English speakers: Prioritize morphological decomposition and particle usage.

Such approaches promise to bridge cross-linguistic gaps, ultimately optimizing discourse comprehension efficacy.

4. Pedagogical and Learning Strategies

Semantic inference ability is a critical factor in Japanese language teaching, directly influencing learners' discourse comprehension proficiency. Research indicates that, beyond foundational vocabulary and grammatical knowledge, semantic inference ability serves as a key differentiator in learners' efficiency in processing Japanese discourse. Comparative studies reveal that learners with advanced semantic inference skills achieve significantly higher accuracy rates in discourse comprehension tasks than their lower-proficiency counterparts [1]. Further empirical evidence demonstrates that, when tackling high-difficulty inference or gap-filling exercises, learners with strong semantic inference abilities exhibit both faster response times and greater accuracy than their peers [1].

Notably, traditional rote memorization methods have proven less effective than task-based instructional strategies in fostering learners' critical thinking and problem-solving skills [2, 8]. Consequently, educators should develop targeted pedagogical approaches to enhance semantic inference ability. In practice, task-oriented activities play a crucial role in promoting learners' inferential reasoning and discourse comprehension. For instance, scenario-based teaching methods—such as simulating real-life social interactions—allow learners to practice inference in context, reinforcing their lexical and grammatical application while strengthening reasoning skills [7].

Given the diverse cultural backgrounds of Japanese learners, differentiated instruction is essential. For example: Chinese-speaking learners can leverage their existing knowledge of kanji (Chinese characters) as a cognitive scaffold to deepen semantic comprehension [6]. English-speaking learners, facing greater structural divergence between their L1 and Japanese, may benefit from contrastive analysis techniques, which highlight key differences in semantic organization and discourse patterns to facilitate inference development [9,10].

In summary, cultivating semantic inference ability requires diverse instructional methods and targeted practice, ultimately enhancing learners' holistic comprehension of Japanese discourse.

5. Conclusion

This study systematically examines the impact of semantic inference ability on discourse comprehension among Japanese language learners, synthesizing multidimensional academic findings. Comparative analyses reveal that semantic inference ability exhibits greater independence than lexical or grammatical knowledge in explaining variations in comprehension outcomes. For instance, unlike mere vocabulary accumulation, strong semantic inference skills enable learners to deduce accurate meanings from contextual clues when encountering unfamiliar words or syntactic structures.

Furthermore, significant disparities in semantic inference ability were observed across learners of different native language (L1) backgrounds, highlighting the critical role of L1 transfer in second language acquisition. These differences manifest distinctly in discourse processing, underscoring the interplay between cognitive strategies and linguistic typology.

In summary, the systematic development of semantic

inference ability empowers Japanese learners to enhance their cross-cultural communication competence and adapt more flexibly and efficiently when engaging with typologically distinct languages. This study advocates for prioritizing semantic inference training in Japanese pedagogy. To operationalize this, we recommend integrating authentic materials rich in metaphorical and figurative language, as these necessitate deeper semantic processing, thereby fostering inferential skills in real-world contexts.

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