

Linguistic Relativity and Contextual Completion Hypothesis-- Exploration of the Relationship Between Language and Thinking in Second Language Learning

Yisi A

*Huazhong Agricultural University, Wuhan, China
apace_2025@foxmail.com*

Abstract. The hypothesis of linguistic relativity was first introduced by Sapir and later carried forward by his student Whorf. The claim of the hypothesis of linguistic relativity that language influences thinking has always been a subject of discussion among many scholars. This paper seeks to synthesize the historical trajectory of research on the hypothesis of linguistic relativity, linking it with the Contextual Completion Hypothesis to explore how language-thought relationship theory applies to second language learning. From the perspective of the language-thought relationship, the paper argues that the inherent contextualized nature of script-based curricula can create a target-language environment which can serve as an essential resource that addresses the absence of a natural linguistic context faced by foreign language learners. This study proposes practical strategies for using script-based curricula to improve second language learning, diversify classroom experiences and learning methods, and increase study efficiency.

Keywords: Linguistic Relativism, Contextual Completion Hypothesis, Language Immersion Theory, Language Learning, Pedagogy

1. Introduction

In the context of today's globalization, the importance of language learning has become increasingly prominent. Dating back to the early days of Western philosophy, philosophers Plato and Aristotle delved deeply into the relationship between language and thinking, giving rise to two opposing viewpoints [1]. With the passage of time, the Sapir-Whorf hypothesis of linguistic relativity further triggered extensive discussions in the academic community about how language influences thinking. The proposal posits that speakers of different languages exhibit significant differences in their ways of thinking [2]. Chinese scholar, Professor Wang Chuming proposed the "Contextual Completion Hypothesis," targeting Chinese students, which highlights the critical role of context in language learning and notes that a lack of suitable context can cause learners to encounter significant challenges in foreign language acquisition [3]. Thus, researching the language-thought relationship is essential. This paper combines literature review and empirical research to analyze the impact of context-rich script-based curricula on language learners, exploring the language-cognition

connection, offering theoretical backing for foreign language teaching, presenting practical learner strategies, and aiming to spark innovation and guide future language education.

2. The introduction of the hypothesis of linguistic relativity

Early philosophical ideas regarding the relativity of language and thought trace back to the beginnings of Western philosophy. Plato argued that human thought constitutes a form of silent speech, inherently intertwined with language, whereas Aristotle posited that language serves as a symbol of thought but maintained that thought itself is not synonymous with language. These two opposing perspectives have persisted into the present day. The hypothesis of linguistic relativity, also known as the Sapir-Whorf Hypothesis, emanates from these most debated views on the relationship between language and thought. The core principle of linguistic relativity is that language "partitions" the world in distinct ways—in other words, the language people use shapes how they perceive and focus on the external world. Linguist Benjamin Whorf clarified each concept within the hypothesis, emphasizing the distinction between "grammar"—which refers to a language's vocabulary and grammatical patterns—and "different views of the world," generally understood as "thought and concepts" [4]. In his 2006 publication, Thierry argued that "attempting to split language from general cognitive abilities is both misleading and essentially pointless." He further noted that within the ongoing debate about the two opposing ends of the language-thought spectrum, "while no evidence supports the extreme views at either end, a growing body of research indicates that language influences cognition through various mechanisms" [5]. Language planning expert Robert Kaplan noted that analyzing textual semantic structures and organizational patterns can identify distinct thinking patterns preferred by speakers of different linguistic and cultural backgrounds. He proposed that users of English, Semitic, Oriental, Romance, and Russian languages exhibit the following divergent thinking patterns, as shown in Figure 1:

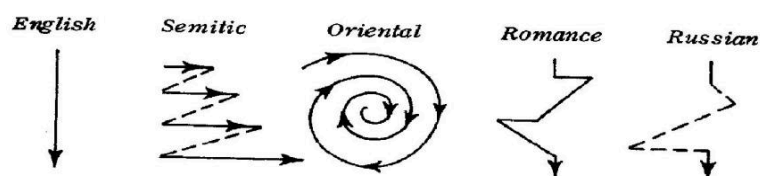


Figure 1: Schematic diagram of thinking patterns in different languages [6]

Another example is Russian's well-known rich distinctions between light and dark blue, which influence speakers' color discrimination abilities. Such instances illustrate how language shapes various aspects of cognition in flexible, context-dependent ways. Recent pioneering studies in cognitive neuroscience and neurophysiology challenge the notion of universal primacy in human cognition, positing language as an integral component of human thought. These findings represent the latest advancements in linguistic relativity research. For example, contemporary researchers have begun applying psycholinguistic methods to examine the core of the language-thought relationship, while recent breakthroughs in neurophysiology and cognitive neuroscience offer new opportunities to identify neural correlates of language's impact on cognition. Additionally, the concept of "thinking for speaking"—put forward by psycholinguist Dan I. Slobin—represents an influential research trajectory within linguistic relativity theory. He argues that thinking processes

take on a specific quality when employed in the context of speaking. He proposes that studying children's native language acquisition is one way to explore this concept, as children may also develop thinking patterns associated with its structure and semantics as they learn their first language. Substantial evidence from TFS research shows that speakers of different languages select and organize information in language-specific ways when processing it [7]. This research directly or indirectly supports the notion that most second-language learners' thinking remains shaped by the cognitive patterns of their native language.

3. Contextual compensation in second language acquisition

The "Contextual Compensation Hypothesis" is a significant theory in the fields of second language acquisition and pragmatics, proposed by scholars such as Kenneth Heine and Björn Lindblad. It primarily explores the compensatory role of context in language comprehension and production. In language communication, when linguistic forms themselves convey incomplete or ambiguous information, context acts as a "compensatory mechanism" to aid in constructing meaning and realizing communicative intentions. Phenomena like Chinese students speaking "Chinglish" emphasize that when real-life context is lacking in foreign language learning, native-language contextual knowledge intervenes to fill the gap, leading to problematic language performance. "Contextual compensation" describes how second-language learners tend to overly equate native and foreign-language contexts, causing mismatches between L2 forms and their target contextual meanings [8]. From one of the latest studies in the Thinking for Speaking, substantial evidences show that when acquiring their native language, learners may develop specific ways of thinking, which may also influence or shape learners' cognitive patterns when they further learn the second language. And that's the reason for their awkwardness and difficulties in the second-language acquisition process.

However, enhancing metalinguistic awareness of target-language structure can facilitate second-language learning and broader cognitive development. By compensating for target-language context, learners can cultivate L2 thinking patterns and reduce or even escape native-language constraints. One effective strategy to establish a target-language context is through extensive exposure to authentic language input, which can effectively strengthen learner's internal foreign-language system and suppresses negative transfer from the first language.

4. The practical implications of immersion teaching

Traditional language instruction often emphasizes listening, speaking, reading, and writing skills, with progress largely dependent on teachers' verbal explanations and problem-solving activities. Students often use native-language contexts to grasp foreign language knowledge, thereby failing to develop an internalized system for processing the second language and remaining constrained by native-language frameworks.

Immersion teaching, a unique language education model in Canada, has thrived for over 55 years. It has yielded rich results, offering valuable insights into second-language acquisition and becoming a defining feature of Canada's bilingual education [9]. Script-based courses are a form of immersion teaching. They create an immersive learning environment, innovate traditional foreign language education, and help address the lack of contextual language exposure for non-native learners. Script-based curricula are chosen because their distinct elements—source-language culture, colloquial syntax, and source-culture characters—offer students a rich contextual experience even in simple classroom interactions. These features enable learners to quickly perceive the target language's

nuances and alleviate the absence of an authentic foreign-language environment, addressing a core challenge in second-language acquisition. In teaching, learners are able to be the direct experiencers and effective immersion boosts their learning results and lets them enjoy the process, bringing satisfaction and a sense of achievement. Swiss educator Pestalozzi believed that students must turn classroom sensations and impressions into their own ideas to express them. In other words, learning involves not just thinking but also seeing, listening, and doing—mastering content through personal experience and reflection [10].

Through deep engagement with foreign language scripts, learners can integrate personal interpretations into their performances and adapt linguistic expressions. This process allows them to construct a contextual framework within the target language environment, which supports their language acquisition. Compared to traditional oral language instruction where teachers primarily convey grammatical knowledge, script-based curricula enable students to deeply immerse themselves in an English-language context. The authentic input provided through scripts effectively bridges the contextual gap often present in second-language cognition and fosters more natural language acquisition [11].

5. Conclusion

This paper explores the relationship between language and thought, examining the Sapir-Whorf hypothesis of linguistic relativity and synthesizing the latest findings in contemporary linguistic relativity research. It highlights significant differences in cognitive patterns among speakers of different languages, with specific cognitive style effects proving particularly pronounced among second-language learners. The "Contextual Compensation Hypothesis" emphasizes the critical role of context in language learning, positing that the absence of appropriate contextual support leads to significant challenges for learners in foreign language acquisition.

Drawing on two studies, this paper argues that to effectively overcome the constraints of native-language thinking, second-language learners require educators to prioritize creating a rich target-language context. Through extensive foreign-language input and practice, educators can help learners construct a comprehensive framework for thinking in the target language. This approach not only reduces native-language interference but also fosters learners' deeper comprehension and effective application of the target language. Since this study did not empirically examine the benefits of script-based curricula, future research could explore strategies for effectively integrating such programs into instructional practice. Specifically, by tailoring scripts to diverse learner profiles, educators may develop context-specific materials to enhance second-language learning outcomes. Continued investigation into the interplay between language and thought holds significant potential to inform and improve foreign language pedagogy, offering more effective and learner-centered strategies. It is hoped that this study will provide meaningful insights and practical guidance for future language education initiatives.

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