

The Intelligentization of Second Language Acquisition Assisted Cognitive Linguistics Based on Internet Dynamic Information Network

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Abstract: This paper combs the basic concepts of dynamic system theory in detail, including the overall connectivity, nonlinearity, self-organization and attractive state of the system, and the sensitivity and difference of the initial state. And from the neurophysiological level, the hot issues of second language acquisition are discussed briefly, so as to provide a new idea for the research of second language acquisition. It is proposed that cognitive linguistics can provide coherent and appropriate theoretical guidance and method reference for second language acquisition. The deepening of second language acquisition research can enrich and test the theoretical assumptions of cognitive linguistics, and promote the continuous maturity and improvement of the theoretical system. Through the statistical analysis of the pre-test and post-test of the CET4 simulated test scores of the two groups of students, it is found that this training mode is helpful to improve the students' English ability.

Keywords: Second Language Acquisition, Cognitive Linguistics, Internet Dynamic Information Network

1. INTRODUCTION

In recent years, the discussion and research on the relationship between explicit knowledge and tacit knowledge has become one [1] of the hot topics in foreign language circles. Native speakers use tacit knowledge when using language. If second language learners can convert explicit knowledge and automatically use tacit knowledge like native speakers [2], they will have ideal language skills. The 5th National Seminar on Cognitive Linguistics and Second Language Acquisition, hosted by the China Cognitive Linguistics Research Association [3] and organized by the School of Foreign Languages of Shandong University of Finance and Economics [4], was held in Shandong University of Finance and Economics from October 28 to 30, 2016. . All colleges and universities can explore and establish a new teaching mode of Internet + according to the actual situation of the school [5].

The majority of English teachers can keep pace with the times in actual teaching, and combine modern information technology with modern foreign language teaching theories to carry out teaching reform experiments [6]. The experiments cover the English classroom teaching mode. Linguistic research” is the theme. The combination of the latest achievements of modern information technology and modern educational theory has brought opportunities for educational innovation [7]. As far as foreign language teaching is concerned, the teaching reform experiment based on the Internet + modern foreign language teaching theory with the purpose of improving students' [8] comprehensive application ability of listening, speaking, reading, writing, and translation has attracted more and more attention. In order to introduce this theoretical framework to domestic scholars [9], due to the limitations of research methods, the research on language use objects in the field of applied linguistics is still at the level of describing the phenomenon of language acquisition [10].

This paper sorts out the most relevant concepts of dynamic system theory and applied linguistics in detail [11], and takes the research results of second language vocabulary development as an entry point to demonstrate the application

potential of the theory in the field of second language acquisition [12], and propose some research methods. As early as the beginning of this century, Robinson (2001) systematically discussed the cognitive theory in second language acquisition research and the cognitive factors infiltrated in second language teaching [13], and proposed the cognitive orientation of second language acquisition research, namely by explaining the reasoning and intelligent structure of language users. Therefore [14], the core question of whether to teach grammar is whether the two kinds of knowledge can be transformed into each other, so as to promote the improvement of learners' language ability [15]. have important meaning. Since the beginning of this century, the research on cognitive linguistics at home and abroad has increasingly shown interdisciplinary characteristics [16], resulting in interdisciplinary research fields such as cognitive sociolinguistics, cognitive pragmatics, and cognitive poetics [17].

The research scope of cognitive linguistics has been greatly broadened, and interdisciplinary research results have been emerging. Krashen believes that language acquisition can only occur when language learners receive comprehensible language input [18]. Swain believes that in addition to comprehensible input, comprehensible output is also a necessary condition for second language acquisition, and communication between people emphasizes that language output must be comprehensible [19]. Writing and speaking are the two main forms of language output. Strengthening the training of writing and speaking can promote the automation of language use, thereby effectively [20] improving pragmatic ability. The formulation of complex systems is mostly used in the fields of meteorology and biology, while the theory of dynamic systems Mostly used in mathematics [21].

Although the names and origins are different, these theories all point to the same dynamic. Some scholars have pointed out that it is more direct and effective to study the relationship between language [22] and the brain from the perspective of neurolinguistics; many ambiguous issues in the humanities and social sciences such as to study with emerging

interdisciplinary [23] disciplines, to use empirical methods to verify. Cognitive linguistics emphasizes that language is not a closed, self-contained system, but a dynamic entity that is constantly influenced by its users [24]. The motivation of language is rooted in people's perception of the external world. The perception of people, which emerges in people's interaction, not only has heterochrony but also has strong heterogeneity. Second language acquisition researchers divide language knowledge into two different dimensions: explicit and implicit.

2. THE PROPOSED METHODOLOGY

2.1 The Internet Dynamic Information Network

"Explicit knowledge" is the knowledge of language rules that second language learners can recognize and speak, that is, the learners know what they know. This includes analytical knowledge such as second language phonology, vocabulary, grammar, pragmatic and social characteristics, as well as metalinguistic knowledge.

Many scholars have conducted multi-angle and in-depth discussions on cognitive linguistic ontology, such as cognitive understanding, categories, prototypes, constructions, metaphors and metonymy, and many of them have applied cognitive linguistic theories to Chinese. Wei Zaijiang discussed the grammatical metonymy mechanism of fully quantified parallel structures such as "Zhang Wang, Li Zhao, Joy, Anger, Sadness". In the experiment, the author divided 80 students from two classes of business English major of 15 into the experimental group. and the control group, each with 40 people. The students have studied English for 10 years from the third grade of elementary school to the third grade of high school, and then were admitted to the English major of vocational colleges.

The students in both classes are managed by the same instructor. The primary feature of a dynamic system is that the system consists of a variety of variables or parameters, which are interrelated and in constant motion. A dynamic system can be a city's transportation system or a forest's ecosystem. Cognitive linguistics shifts the research center of second language acquisition to Learning an individual's experience of the physical world and its interaction with it constitutes a dynamic model that comprehensively interprets and guides contemporary language teaching and research.

Tacit knowledge is completely tacit knowledge (tacit knowledge), which is the knowledge mastered by the learner's subconscious, that is, the learner does not know what he knows. When children master the characteristics and rules of their mother tongue in an unconscious state, they have the ability to use their mother tongue, so their knowledge about their mother tongue is tacit knowledge. Song Rou studies the cognitive mechanism of the complex structure of Chinese clauses. Constraints, introduced the stack mode, new branch mode, post mode and confluence mode of Chinese clause complex, analyzed the nature and cognitive mechanism of Chinese clause complex structure, and considered that the duration of stack mode has no upper bound. It can be freely scaled. Dynamic system theory pays more attention to the interaction between multiple components of the system and the internal and external environment of the system. The environment does not exist in isolation, but is an integral part of the system.

2.2 The Second Language Acquisition Aids Cognition

Around this key scientific question, the researchers focus their research on two aspects: (1) to what extent the second language processing depends on the learner's native language brain network. Compared with the traditional static explanation method, the use of diagrams or The force dynamic diagram in the form of scene analyzes the meaning of modal verbs, which can help learners to obtain better cognitive effects.

Similarly, prepositions used to express spatial relationships are often combined with verbs. Strong interface theory holds that explicit and tacit knowledge can be transformed into each other through practice. Ellis pointed out four functions of practice in the transformation of explicit to tacit knowledge: it can make declarative knowledge easier to extract; it can make tacit knowledge graphical and chunking; it can automate knowledge and make output more fluent. Most of the papers related to second language acquisition in this seminar are supported by experimental or corpus data. It can be seen that, as a set of opposing concepts, explicit and tacit grammar knowledge are two independent knowledge systems. There are many opposing features in representation and knowledge processing.

It is more normative and scientific. Yao Yanling analyzed the cognitive mode of displacement construction in Japanese and Chinese with the help of the Chinese-Japanese translation corpus, and believed that Chinese often use mode verbs while Japanese often use path verbs to indicate displacement; through a survey of intermediate level Japanese learners' acquisition of displacement verbs as an example of second language lexical research, lexical knowledge has all the characteristics of a complex system (Meara 2006). Recognizing a word is a very complex concept, including not only knowing the meaning-form mapping, but also multiple information such as phonetics, spelling, word meaning, morphology, part of speech, and register.

The single-mechanism model of bilingual processing holds that the processing of the second language must rely on the support of the native language brain network, and the time of second language acquisition is the main factor determining the difference in activation during language processing. According to the three cognitive principles of real-world dynamics, different interpretations of the same scene, and metaphorical thinking, the polysemy systems and the expansion paths of the meanings of basic English prepositions such as core meaning, extended meaning, contact meaning, and subordinate meaning are defined.

2.3 The Acquisition-Assisted Cognitive Linguistics

Three types of interface theory explain the role of classroom teaching in different degrees. The focus of the question is whether the second language learning can be completed under the influence of implicit or explicit language input, and to what extent can implicit or explicit language teaching create successful second language learners. [16] Dai Manchun believes that the interface problem cannot be avoided in classroom teaching activities. Tian Yanming tried to construct a discrete-continuous schema representation model of the phonemic dimension, and deeply excavated the conventional variables that affect the representation of phonemic schemas, and proposed phonemic habituation.

3. CONCLUSIONS

The author believes that the perspective of dynamic systems theory can comprehensively interpret key issues such as the multi-layer interaction of cognitive processes and environments in second language acquisition research, the nonlinear characteristics and stagnation of language dynamic development, and the influence of mother tongue and individual differences. It is especially suitable for exploring the dynamic development of language. However, it can provide analytical tools with high accessibility and completeness for the nature and structure of complex language phenomena, and inspire teaching workers to better cut into language knowledge points. It has strong application potential in second language acquisition research.

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