

Available online at www at www.jeltl.org

doi: http://dx.doi.org/10.21462/jeltl.v8i2.1056



Journal of English Language Teaching and Linguistics, 8(2), 2023

Viewing Second Language Acquisition from the Philosophical Perspective of Mindfulness

Huanan Su

College of Arts and Sciences, University of the Cordilleras, Baguio City, Philippines e-mail: h-s2460@students.uc-bcf.edu.ph or suhuanan943397038@gmail.com

Received 10 May 2023 | Received in revised form 19 May 2023 | Accepted 24 May 2023

APA Citation:

Su, H. (2023). Viewing Second Language Acquisition from the Philosophical Perspective of Mindfulness. Journal of English Language Teaching and Linguistics, 8(2), 2023, 173-184. doi: http://dx.doi.org/10.21462/jeltl.v8.i2.1056

Abstract

This current research study attempted to exploratively expose second language learners' learning acquisition from a philosophical perspective of mindfulness. Regarding this, the researcher deeply studied and identified the behavioral performances of the second language learners in the process of second language acquisition (SLA), which led to the exposure of the close relationship between the theories of philosophy of mindfulness and SLA. As a qualitative research, the current research fully adopted the inductive-deductive method, the comparative analysis method, and the literature review method to deeply analyze the internal relationship between the philosophy of mindfulness and SLA. The research preliminarily found that the cognitive-behavioral theory, under the guidance of the theory of philosophy of mindfulness, provided a good theoretical basis for studying the thinking activities of second language learners' brains. Thus it is indicated that studies on the operational processes of second language learners' language cognition should require second language teachers to go deep into all levels of SLA. Consequently, it is suggested that second language teaching should properly follow the scientific laws of cognition and properly develop the potential mindfulness of second language learners, which is an important aspect that all second language teaching experts and teachers can no longer ignore.

Keywords: Cognitive Linguistics; Mindfulness; Philosophical Perspective; Second Language Acquisition (SLA); Second Language Teaching

1. Introduction

Studies on second language acquisition (SLA) continue to flourish in the 21st century. In particular, the interleaved development of SLA and cognitive linguistics has become a focus topic in the new century. This is not only because cognitive linguistics is an emerging and cross-disciplinary subject, but more importantly, it is because, from a philosophical point of view, cognitive linguistics comes from the philosophy of non-objectivism, which emphasizes "experience" as an active role in understanding the world (Mei, 2021; de Villiers, 2007; Perner & Aichhorn, 2004).

Many theories of cognitive linguistics have had a certain impact on SLA in the field of the philosophy of language. Cognitive linguistics believes that language is not an independent module, while at the same time, human language ability is attached to human cognitive ability (Shu, 2002). Cognitive linguistics has carried out a series of reflections on traditional language philosophy and has also made significant contributions to the development of language theories and SLA theories. Based on this, the emergence of the "Philosophy of Mindfulness" has driven the further development of cognitive linguistics on SLA (Symons, 2004).

How does a certain learning behavior or a certain acquisition phenomenon of second language learners produce understanding, and what is going on in the brain of a second language learner? This may be one of the most interesting topics or questions for many linguists and language educators in the 21st century, which intends to "reveal the mystery of human language intelligence" (Sun & Liang, 2000). In other words, such mystery is to reveal the law of the thinking activities of humans, which is what the principle of cognitive language science does. This further shows how the history of human cognition gradually develops, which is when human beings understand the world, they give abstract philosophical explanations to everything in the world (Yuan, 2022). While in turn, those explanations reflect human's internal cognitive categories and performance of mindfulness.

The term "Philosophy of Mindfulness" refers to the study of human thinking and human's mind, the main purpose of which is to discover the systems of human knowledge, human knowledge intake, and its psychological processes and neural manifestations, etc (Ran, 2002). The philosophy of mindfulness is based on experiential philosophy, and its main point of view is that based on physical experience, human's concepts, and human's mind come from self-experience and thus are all experiential. At the same time, pragmaticians start from the perspective of psychological cognition, study the basic theoretical framework of language use from the perspective of cognition, and regard pragmatics as a part of cognitive science, which becomes the "cognitive pragmatics" (Wang, 2004; Wang, 2002). In fact, since the mid-1980s, the research scope of cognitive science has expanded into many subfields of linguistics, such as phonology, semantics, syntax, meaning, discourse, etc. It places cognitive linguistics in the subject of cognitive science, which is connected with Philosophy, Psychology, Anthropology, Computer Science, and Neuroscience, etc. (Yuan, 2022; Wu, 2000) This has finally led to cognitive linguistics, cognitive pragmatics, cognitive grammar, cognitive psychology, cognitive anthropology, and cognitive sociology correspondingly.

Since then, based on the philosophical basis of cognitive language research, language studies have become a hot topic in the language world, which is just about the moment when the study of the philosophy of mindfulness begins. In the process of learners' language acquisition, the study of the philosophy of mindfulness points to the study of a series of cognitive processes such as second language learners' brain activities, language and thinking modes, and even their performance of mindfulness.

For example, Chen (2023) once mentioned the rapid development of artificial intelligence (AI) and the breakthroughs made by artificial intelligence systems in tasks such as speech recognition and natural language processing in one of his studies on artificial intelligence research. This has also led to people's deep thinking about human's mind and cognition. The intersection of studies on human's

mind and artificial intelligence has advanced the study of similarities and differences between human's mind and machine intelligence (Chen, 2023).

At the same time, Yuan (2022) also maintains that the new study of mindfulness is an interdisciplinary field involving the cooperation of multiple disciplines, such as psychology, philosophy, computer science, neuroscience, linguistics, and anthropology. In recent years, according to other supplementary information from Mei (2021), scholars have realized that interdisciplinary cooperation is essential to solve complex cognitive problems. Therefore, just as Mei (2021) supplements, that's why interdisciplinary research studies and collaborations have been increasing.

Furthermore, in studies on mindfulness, Li (2023) proposes that the human's mind constructs and improves models of various cognitive sciences to explain and predict human cognitive behaviors. In the introduction of Li (2023), he reveals that these models include symbol processing models, connectionist models, dynamic system models, etc. In the new century, with the increase in computing power and data, people are able to build more complex and accurate cognitive models and verify them with experimental data (Yuan, 2022).

In fact, the study of second language acquisition (SLA), as well as its mechanism, has always been an important direction of the study of mindfulness. Nevertheless, this direction is indeed one that many researchers and experts seldom consider or even ignore. To a certain extent, the application and study of mindfulness in second language acquisition have not been thoroughly explored and verified by various researchers and experts.

This is where the research gap of this study lies. The application of mindfulness in second language acquisition and the lack of research on mindfulness have prompted the current researcher to generate a series of new ideas. Researchers in disciplines such as neuroscience, philosophy, and psychology are working to uncover the origin and nature of consciousness. Then, in the current research, the researcher makes up one's mind to devote himself to thinking and exploring the relationship between human's consciousness and mindfulness, specifically, the relationship between the location, the production, and the contents of consciousness and mindfulness.

In light of this, as qualitative research, this current research study mainly discusses and reveals two issues regarding the relationship between the philosophy of mindfulness and SLA, as well as the performance of mindfulness of second language learners in the process of SLA. Thus, the two research questions of the current research are as follows:

Research question No. 1: What is the mechanism of SLA from the philosophical perspective of mindfulness?

Research question No. 2: What is the performance of mindfulness of second language learners in the process of SLA based on the perspective of the philosophy of mindfulness?

2. Literature Review

2.1 Philosophy of Mindfulness

2.1.1 Studies of Mindfulness

The so-called "mindfulness" is a broad concept, usually used to refer to human mental activities such as thinking, perception, memory, judgment, and reasoning (Astington & Baird, 2005; Rooijen, 2010). Most European linguists define "mindfulness" as "mind", referring to a series of cognition, emotion, consciousness, memory, language, and many other aspects of human beings. Literally, as the name suggests, "mindfulness" or "mind" usually acts as one of the most basic psychological functions of human beings as well as an important basis for human thinking activities and "mindfulness-based behaviors".

Studies of mindfulness see mindfulness as a specific type of attention and concentration of an individual human. Thus it refers to a particular mindful state being fully presented and acutely aware of

an individual's bodily sensations, emotions, and thoughts in the present moment without any judgments or distractions. According to Aziz-Zadeh, et al. (2004), this state of attention, which can be cultivated and strengthened through practices such as meditation, can help human beings reduce stress, improve focus, reduce negative emotions such as anxiety and depression, etc., and improve the quality of human's life and its well-being (Yuan, 2022).

"Mindfulness" or the "mind" has been widely studied and discussed in many scientific fields such as philosophy, psychology, cognitive science, and neuroscience, etc. In cognitive psychology, studies of mindfulness are seen as the core center of the human information processing system, in which it receives, stores, processes, and outputs various types of information about an individual human (Mei, 2021; Astington & Baird, 2005). Research objects under studies of mindfulness usually include perception, attention, memory, thinking, judgment, reasoning, language, and many other aspects of an individual human.

The ultimate purpose of such studies is to reveal the mechanism, the laws, and the characteristics of human's mind, as well as the relationship between human's mind and its mindfulness-based behaviors (Aziz-Zadeh et al., 2004). Studies of mindfulness are of great importance since human's emotions, attitudes, and behaviors are profoundly influenced by them during human's daily life and work.

2.1.2 Studies of Mindfulness and Cognitive Linguistics

The studies of mindfulness and cognitive linguistics are closely related. Cognitive linguistics refers to a discipline that reveals the operating mechanism of the human mind by studying the process of human language processing. Thus, it believes that language is a form of human intelligence and thinking, and the study of language processing can reveal human's mental mechanisms (Folse, 2004).

Specifically, cognitive linguistics studies the nature and mechanism of human's language abilities, including language cognition and language production. Cognitive linguistics explores issues such as, how humans understand and produce language, or whether is there a close relationship between human language abilities and thinking abilities and the like. In fact, through experimental research and data analysis of human language processing, cognitive linguistics can successfully reveal the psychological mechanisms of human's thinking, attention, memory, and so on (Cheng, 2002). At the same time, it enables an exploration of how these mechanisms operate during language processing.

Based on what is mentioned above, it can be said that "mindfulness" is one of the core concepts of cognitive linguistics. In cognitive linguistics, the "mind" is considered to be the basis of the human language processing center as well as the basis of human intelligence and thinking (Fang, 2015; Folse, 2004). By studying the working mechanism of human's mind, cognitive linguistics can better understand the nature of human language abilities and thinking abilities. Most importantly, it can ultimately guide language learners to carry out practical activities by means of their performance of mindfulness.

2.1.3 A Philosophical Perspective of Studies of Mindfulness

The philosophical perspective of studies of mindfulness includes many aspects, the most important of which include functionalism of mindfulness studies, cognitivism of mindfulness studies, and social-culturalism of mindfulness studies (Aziz-Zadeh et al., 2006). Initially, functionalism of mindfulness studies is a philosophical view that focuses on the functions of human's mind. It considers human's mind as an information processing system that performs various tasks by receiving, storing, processing, and outputting information. Therefore, functionalists in the study of mindfulness emphasize the study of mental processes, focusing on describing and explaining the function and structure of the mental processes of humans (Mei, 2021; Kuang & Wen, 2002).

And then, cognitivism of mindfulness studies is another philosophical perspective that focuses on human thought and its cognitive processes. It considers human's mind as a symbolic operating system that expresses and constructs knowledge by manipulating symbols (Ma, 2015). The cognitivist of mindfulness studies emphasize the logical structure and laws of human thinking and believe that by studying the basic structure and rules of thinking, they can gain a deep understanding of the nature of human intelligence.

Lastly, the social-culturalism of mindfulness studies also acts as a philosophical perspective that focuses on the influence of social and cultural factors on the development of human's mind. Social-culturalism of mindfulness studies believes that the development of human thinking and behaviors occurs in a certain social and cultural environment, and the influence of social and cultural factors on the development of the human mind is pretty crucial. (Nelson, 2005) Therefore, socioculturalists in the study of mindfulness advocate the study of cultural and social environments to understand the influence of these factors on the human's mind and behaviors.

To note, the three major aspects of mindfulness studies from a philosophical perspective are not mutually exclusive, but rather complementary. Such studies require a synthesis of those different philosophical perspectives to gain a comprehensive and in-depth understanding of the biological nature as well as the internal mechanisms of the human mind.

2.2 Second Language Acquisition (SLA)

2.2.1 Mechanism of SLA

The so-called mechanism of SLA refers to a certain preset mechanism in which second language learners develop one of their comprehensive abilities to gradually master and use one language through the process of contacting and learning another language on the basis of the previous language that they have already mastered (Fang, 2015; Shu, 2002). In layman's terms, within the mechanism of SLA, it is to achieve the purpose of being able to communicate in this language by learning a second language.

The process of SLA with the learning mechanism is similar to the one of mother tongue acquisition, which is a process of gradually mastering language knowledge and skills. Under the mechanism of SLA, second language learners need to gradually master the knowledge and skills of pronunciation, grammar, vocabulary, and pragmatics of the new language through continuous practice, imitation, memorization, etc. (de Villiers, 2005) During all those processes, second language learners need to constantly adjust and optimize their learning strategies and methods to improve the learning efficiency as well as their learning outcomes.

The mechanism of SLA is actually a complex and long-term process, affected by many factors, and it might include the following aspects. Firstly, language input in the mechanism of SLA refers to the need to receive sufficient language input in the process of learning a second language, including listening, speaking, reading, writing, and other aspects (Fang, 2015). The quality and quantity of language input have an important impact on the effect of the mechanism of SLA. And then, environmental factors in the mechanism of SLA refer to the environmental factors in learning a second language that are also important. Say, the frequency of using a second language, the occasions where a second language is used, and the relationship between the mother tongue and the second language, etc., will all affect the mechanism of SLA. What's more, according to de Villiers (2005), the individual factors of the mechanism of SLA refer to the individual factors, including the age of the learner, language learning background, learning motivation and cognitive ability, etc., which have a certain influence on the effect of the mechanism of SLA as well.

Besides, the mechanism of SLA includes its language rules, which means that the language rules of the second language are also very important to the process of second language learners' SLA. For example, according to Zhong (2002), the laws of pronunciation, grammar, vocabulary, etc., need to be gradually mastered by second language learners. Finally, the mechanism of SLA even includes feedback and correction, which means that second language learners need to constantly receive feedback and

correction during the learning process in order to continuously adjust and improve their language ability and maintain their language acquisition.

Combining the above factors, the mechanism of SLA can be understood as a multi-factor interaction process. This process requires second language learners to gradually master the language rules and contextual application of the second language through continuous language input and practice.

2.2.2 Second Language Teaching and SLA

Second language teaching and SLA are closely related concepts. Second language teaching refers to the process of consciously providing learners with language knowledge and skills, including the teaching of vocabulary, grammar, pronunciation, etc., while SLA is the process of learning and mastering a second language in a natural environment, which is a natural and unconscious learning process (Zhang &Wu, 2002). SLA usually occurs when second language learners are placed in a social environment using the target language, and naturally absorb and master language knowledge and skills through a series of interactions with native speakers (Eryilmaz, 2015).

Second language teaching can promote the development of SLA. Through second language teaching, second language learners can acquire more systematic and comprehensive language knowledge and can grasp the basic structure and rules of the language more quickly. This will allow second language learners to express themselves more fluently and accurately in actual use (Jean & Simard, 2011; Lou, 2000). Moreover, second language teaching can also provide second language learners with opportunities for language input and output, thereby helping them better understand and use the target language.

It should be noted that second language teaching and SLA are not exactly the same. Sometimes the language knowledge learned by second language learners in teaching may not be fully applied in actual communication. Instead, some second language learners may develop their language skills through their own practice and interaction that are not acquired through instruction. In a nutshell, second language teaching and SLA are two mutually complementary and interactive concepts, both of which jointly promote the improvement of second language learners' language abilities and the enhancement of their communicative abilities.

3. Research Methods

Generally, the current research study attempts to explore the internal relationship between the philosophy of mindfulness and SLA. As mentioned above, with the help of the perspective of the philosophy of mindfulness, this current researcher has deeply studied and identified the mechanism of SLA, and then analyzed and discussed the relationship between the relevant theories of the philosophy of mindfulness and the mechanism of SLA. Regarding this, this current research study mainly discusses and reveals two issues regarding the relationship between the philosophy of mindfulness and SLA, as well as the performance of mindfulness of second language learners in the process of SLA.

3.1 Method of Induction and Deduction (MID)

As the most crucial research method, the first research method of the current study was the Method of Induction and Deduction (MID). In scientific research methodology, the MID is a reasoning method commonly used in scientific research. It can be used to derive general laws or theories, while at the same time, it can also be used to test and verify existing laws or theories.

The method of induction refers to the collection of a large number of specific qualitative research reports, qualitative observation reports, and the final results and reports of some qualitative data, from which general laws and concepts are summarized, and then hypotheses or theories are formed. For

example, identifying and discussing the relationship between two things or two concepts through induction is an aspect of the MID.

The method of deduction, on the other hand, refers to the process of applying general laws and concepts to specific situations and drawing specific conclusions through logical reasoning and hypothesis verification. For instance, after identifying and discussing the relationship between two things or two concepts through induction, we can further deduce how the former behaves in the latter in this relationship, etc.

In the current study, the MID explored the relationship between the philosophy of mindfulness and SLA through the reasoning process from the particular to the general as well as from the general to the particular. This helped the researcher to propose hypotheses, test hypotheses, and draw conclusions, so as to promote the further development of the relationship between the philosophy of mindfulness and SLA.

3.2 Method of Comparative Analysis

The second research method of the current study was the method of comparative analysis method. This method was used to compare and analyze similarities, differences, and similarities between two or more objects. It was also used to study various phenomena such as cultural, historical, economic, political, social, and psychological aspects, including language and philosophy.

In the current study, the researcher first determined the objects to be compared, including two major aspects of the philosophy of mindfulness and SLA. Next, the researcher collected relevant information and other qualitative data on the philosophy of mindfulness and SLA. The data collected were used to compare the similarities and similarities and differences between the two concepts and to analyze the causes and effects of those differences and similarities.

Specifically, in terms of the philosophy of mindfulness, the researcher made an in-depth comparison and analysis of the similarities and differences between mental development and cognitive science. At the same time, for SLA, this researcher deeply identified and discussed the performance of mindfulness in terms of the second language learners' learning anxiety, learning motivation, and learning interest in the process of language learning, and then summarized the results of the comparative analysis, which was aimed at helping culmination in the conclusions and recommendations of the current research.

3.3 Method Literature Synthesis

Another important research method of the current study was the method of literature synthesis. The method of literature synthesis is a method to answer research questions through comprehensive analysis, induction, and summary of existing literature. It is often a starting point for understanding and assessing the state of existing research and identifying directions and methods for further studies.

In the current study, with the help of the method of literature synthesis, after identifying the research questions and clarifying the research objectives, including the philosophy of mindfulness and SLA, the researcher successfully collected relevant information related to the research questions by searching literature databases and other information sources. Then, according to the pre-defined criteria, the researcher screened out and evaluated the literature related to the research question, including assessing its quality, credibility, and relevance. Finally, and most importantly, the current researcher classified, summarized, and synthesized the literature on the philosophy of mindfulness and SLA, so as to pave the way for the writing of the results and conclusions of the current research.

With the help of the method of literature synthesis, the current researcher successfully understood the existing knowledge and progress in the field of philosophy of mindfulness research as well as the SLA research, which provided a theoretical and empirical basis for the current study. This further helped the researcher to explore the relationship between the philosophy of mindfulness and SLA and

studied and identified the learning behaviors as well as the performance of mindfulness of the second language learners in the process of SLA.

4. Results

4.1 Mechanism of SLA from the Philosophical Perspective of Mindfulness

The mechanism of SLA, from the philosophical perspective of mindfulness to a great extent, demonstrates things that cognitive linguistics studies in the language learning processes of second language learners. Cognitive linguistics grows out of cognitive science. In the cognitive exploration of language and linguistics, from the micro level, the concept of cognition penetrates into all levels of language studies. From the perspective of the philosophy of mindfulness, second language learners, as normal people, are able to study the classification of pronunciation organs, phonemes, and sounds from the perspective of phonetics and phonology in linguistics during the processes of learning a second language.

From the perspective of the philosophy of mindfulness, under the mechanism of SLA, second language learners can also study the different meanings of words (which is lexicology) as well as the relationship between words and things in the conceptual world, the internal structure of words and the elements that build grammatical units (which is morphology), etc. While at the same time, from the perspective of the philosophy of mindfulness again, second language learners have the ability to study certain concepts common to all languages, such as the universalism of language (commonness) and the basis of relativity (personality), etc.

It should be specially noted that, as people with physical defects, especially after the audio-visual system in the important process of language cognition is blocked, the blind and deaf cannot see words, symbols, and thousands of things in the conceptual world. Nevertheless, Helen Keller finally learned and used the language, and even published a book. This further shows that, from the perspective of the philosophy of mindfulness under the mechanism of SLA, language is the product of mental cognition, in other words, language is the product of the interaction between human's cognitive ability and objective existing objects.

4.2 Performance of Mindfulness of Second Language Learners in the Process of SLA from the Perspective of Philosophy of Mindfulness

In light of what is introduced and discussed above, the researcher successfully notes and discovers that there exist three categories of performances of mindfulness of second language learners in the process of SLA from the philosophical perspective of mindfulness, which include the "protocontextualization" process as the first process, the second one of the "de-contextualization" process as well as the third one of the "re-contextualization" process.

4.2.1 Proto-contextualization

As one of the three performances of mindfulness of second language learners in the process of SLA from the philosophical perspective of mindfulness, the first continuous process is the protocontextualization process (Kuang & Wen, 2002). In some countries where English is not the native language, for instance, some second language learners spend several hours repeating the pronunciation of words and copying words over and over again in the vocabulary learning of the second language. In such a special language environment, following the scientific method of cognition to develop the potential of cognition and activate all kinds of existing background knowledge is what the process of proto-contextualization refers to in the process of second language learners' SLA.

Specifically, in this process, second language learners' existing cognitive structure has been reorganized, transformed, and developed, and new words have been absorbed and internalized into the existing cognitive structure. So much so that this cognitive process based on the philosophy of

mindfulness is accompanied by second language learners' memory and emotion, which fully reflects the reaction process of cognitive psychology to a great extent.

4.2.2 De-contextualization

The second continuous process of the three performances of mindfulness of second language learners in the process of SLA from the philosophical perspective of mindfulness is the decontextualization process. Easily put, second language learners break new words out of text sentences. Just as what Aziz-Zadeh, Koski, Zaidel, Mazziotta, and Iacoboni (2006) maintain, motivation based on mental cognition guides second language learners to discriminate synonyms, that is, to recall lexical items with similar meanings to the target words.

On this basis, second language learners distinguish and analyze semantic differences through memories, questions and answers, and dictionaries, and then find out the nouns, verbs, prepositions, etc., that form a collocation relationship within them. The process of de-contextualization from the perspective of the philosophy of mindfulness urges second language learners to form a cognitive model in the process of SLA with the purpose of learning target words.

4.2.3 Re-contextualization

The process of re-contextualization is the last component of the three performances of mindfulness of second language learners in the process of SLA from the philosophical perspective of mindfulness. According to Agnew, Bhakoo, and Puri (2007), this process refers to second language learners themselves creating meaningful sentences, i.e., creative use of target words in the new contexts. As a matter of fact, from the perspective of the philosophy of mindfulness, second language learners flexibly connect their existing knowledge, experience, attitude, background, etc., that have been used before.

In other words, the process of re-contextualization enables second language learners to assimilate and internalize the new lexical items, while at the same time refining the process of the second language learners' experiential life, which is exactly what the philosophy of experience emphasizes. Based on this, those language learning environments from personal life, study, and work experience accurately stimulate second language learners' learning motivations. Most importantly, this series of experiential and mental manifestations can not only generate the pleasure of language learning, but also enable second language learners to experience the usefulness of what they have learned, and finally create a virtuous circle as well as an ecologically balanced setting in the entire process of SLA.

5. Discussions

Having a further discussion of SLA from the perspective of the philosophy of mindfulness, we need to notice that there is a close connection between the two sides. What cannot be ignored as well is that the performance of mindfulness of second language learners is also closely related to SLA. Specifically, based on the results obtained from the current research study, it is quite obvious that the performance of mindfulness of second language learners includes their thinking, reasoning, problem-solving, memory, and other abilities in the process of language learning. These abilities are an integral part of the language cognitive ability required to learn a second language, which will also affect the processes and outcomes of language learners' SLA.

A certain correlation between the philosophy of mindfulness of second language learners as well as their achievement in SLA shall also be discussed within the current research study. Second-language learners' ability to reason about language and solve problems is related to grammar acquisition and semantic understanding. While at the same time, their memory is related to the vocabulary and phonetic acquisition of the target language. The performance of mindfulness of second language learners improves the learners' academic performance (Moghadam et al., 2022; Vidal-Meliá et al., 2022; Xie & Guo, 2022; Zeilhofer, 2023; Zeilhofer & Sasao, 2022), and can also affect the selection and

application of individual learning strategies. For example, the strategies adopted by second language learners when solving problems might affect their understanding of the grammatical rules of the target language.

Nonetheless, not all different kinds of performances of mindfulness of second language learners are clearly correlated with SLA achievement. In fact, some specialized studies have found no correlation between imagination, creativity, and nonverbal reasoning skills and the language acquisition processes. This further shows that in the processes of second language teaching, understanding second language learners' performance of mindfulness can help second language educators better understand their learning characteristics and choose more targeted second language teaching strategies and methods, so as to ultimately help them better develop their performance of mindfulness during the processes of SLA.

Moreover, the researcher also realizes that some cognitive abilities of second language learners have a particularly important impact on SLA. For example, second language learners' attention and working memory abilities are critical to the success of phonics learning. This is because second language learners need to be able to notice nuances in language input and store them in working memory for subsequent processing.

What should be noted is that the metacognitive ability of second language learners also has an important impact on SLA. Metacognition is the understanding and mastery of one's own cognitive and learning processes. Second language learners with strong metacognitive ability can better evaluate their own language level, master language learning strategies, and adjust learning strategies in the performance of mindfulness.

Ultimately, in the process of SLA, second language learners' cognitive ability will thus affect their SLA. This actually appeals to the vast number of second language teachers to fully consider language learners' cognitive characteristics in the process of second language teaching, and adopt teaching methods and strategies suitable for their second language teaching so as to guide and help their students learn the second language more effectively. Obviously, second language teachers' effective guidance and help will eventually stimulate second language learners' cognitive experience and performance of mindfulness in the second language acquisition process.

6. Conclusion

A certain correlation between the performance of mindfulness of second language learners and their achievement in SLA has been found in the current research study. For instance, second language learners' ability to reason about language and solve problems is related to grammar acquisition and semantic understanding. Thus, it is concluded that second language learners' memory is related to the vocabulary and phonetic acquisition of the target language, which means that the performance of mindfulness of second language learners can also affect the selection and application of individual learning strategies. What's more, since the current research preliminarily found that the cognitive-behavioral theory under the guidance of the theory of philosophy of mindfulness provided a good theoretical basis for studying the thinking activities of second language learners' brains, it is therefore indicated that studies on the operational processes of second language learners' language cognition should require second language teachers to go deep into all levels of SLA. What is correspondingly suggested is that second language teaching should properly follow the scientific laws of cognition and properly develop the potential mindfulness of second language learners, which is an important aspect that all second language teaching experts and teachers can no longer ignore.

Acknowledgments

The researcher sincerely wishes to express millions of thanks to all those anonymous reviewers of the current journal for their helpful and insightful comments on the whole research study as well as their constructive suggestions for the editions and revisions of the whole research paper.

References

- Agnew, Z. K., Bhakoo, K. K. & Puri, B. K. (2007). The Human Mirror System: A Motor Resonance Theory of Mind-Reading. *Brain Research Reviews*, *54*, 286-293.
- Astington, J. W. & Baird, J. (2005). Why Language Matters for Theory of Mind. Oxford University Press.
- Aziz-Zadeh, L., Iacoboni, M., Zaidel, E., Wilson, S. & Mazziotta, I. (2004). Left Hemisphere Motor Facilitation in Response to Manual Action Sounds. *European Journal of Neuroscience*, 19, 2609-2612.
- Aziz-Zadeh, L., Koski, L., Zaidel, E., Mazziotta, I. & Iacoboni, M. (2006). Lateralization of the Human Mirror System. *Journal of Neuroscience*, 26, 2964-2970.
- Charoensukmongkol, P. (2019). The role of mindfulness in reducing English language anxiety among Thai college students. *International Journal of Bilingual Education and Bilingualism*, 22, 414–427. https://doi.org/10.1080/13670050.2016.1264359
- Cheng, Y. (2002). Factors Associated with Foreign Language Writing Anxiety. *Foreign Language Annals*, 35, 647–656.
- Chen, J. (2023). The Theoretical System and Mindfulness of Artificial Intelligence (AI) Law. *Eastern Jurisprudence*, 1, 62-78.
- de Villiers, J. (2005). Can Language Acquisition Give Children a Point of View? In Astington, J., & Baird, J. (Eds.). Why Language Matters for Theory of Mind. Oxford University Press, 75-85.
- de Villiers, J. G. (2007). The Interface of Language and Theory of Mind. Lingua, 117, 1858-1878.
- Eryilmaz, M. (2015). The Effectiveness of Blended Learning Environments. *Contemporary Issues in Education Research*, 8, 251.
- Fang, F. (2015). Usage-based Language Acquisition. *Journal of Hefei University of Technology Social Science Edition*, 3, 111–116.
- Folse, K. S. (2004). Myths about Teaching and Learning Second Language Vocabulary: What Recent Research Says? *TESL Reporter*, 37(2), 110-116.
- Huang, J. (2022). The Role of English as a Foreign Language Teachers' Mindfulness and Compassion in Fostering Students' Foreign Language Enjoyment. *Frontiers in Psychology*, 13. https://www.frontiersin.org/articles/10.3389/fpsyg.2022.899298
- Jean, G. & Simard, D. (2011). Grammar Teaching and Learning in L2: Necessary, but Boring? *Foreign Language Annals*, 44(3), 113-119.
- Li, H. (2023). The Mind's View of Life: From Pragmatism to Predictive Mind. *Journal of Social Science Front (Module of Philosophical Theory)*, 9, 17–25.
- Loewen, S., Li, S., Fei, F., Thompson, A., Nakatsukasa, K., Ahn, S., et al. (2009). Second Language Learners' Beliefs about Error Instruction and Error Correction. *Modern Language Journal*, 93, 91-104.
- Lou, G. (2000). Modern English Course. Foreign Language Teaching and Research Press.
- Macwan, H. J. (2015). Using Visual Aids as Authentic Material in ESL Classrooms. *Research Journal of English Language and Literature*, 3(1), 91-95.
- Ma, J. (2015). Research on English Vocabulary Classroom Instructional Design Based on Cognitive Linguistics Theory. *Journal of Ningxia Normal University*, 4, 112-114.
- Mei, J. (2021). Research on Mindfulness and Intelligence. *Science, Economy & Society, 39*(162), 22–32.
- Moghadam, H., Ghanizadeh, A., & Ghonsooly, B. (2022). The Effect of Mindfulness-Cultivation Intervention on EFL Learners' Reflective Thinking, Positive Orientation, and Language

- Achievement. Teaching English as a Second Language Quarterly (Formerly Journal of Teaching Language Skills), 41(1), 69–101. https://doi.org/10.22099/jtls.2021.39016.2911
- Nelson, K. (2005). Language Pathways into the Community of Minds. In Astington, J. W. & Baird, J. (Eds.). Why Language Matters for Theory of Mind. Oxford University Press, 26-49.
- Perner, J. & Aichhorn, M. (2004). Theory of Mind, Language and the Temporoparietal Junction Mystery. *Trends in Cognitive Sciences*, 12(4), 123-126.
- Ran, Y. (2002). Exploration of Cognitive Linguistics. *Journal of Foreign Languages*, 4, 36–41.
- Rooijen, J. V. (2010). Do Dogs and Bees Possess a Theory of Mind? Animal Behaviour, 79, e7-e8.
- Shu, D. (2002). On the Operational Mechanism of Second Language Acquisition. Foreign Language Teaching and Research, 2, 98-106.
- Sun, Y. & Liang, X. (2000). A Cognitive Analysis of the Structure of "The + Noun". *Journal of Foreign Languages*, 1, 19–21.
- Symons, D. K. (2004). Mental State Discourse, Theory of Mind and the Internalization of Self-other Understanding. *Developmental Review*, 24, 159-188.
- Trojan, M., Reinholz-Trojan, A., Zieba, K. & Wieczorek, K. (2011). Do Dogs Have a Theory of Mind? *Journal of Vertinary Behaviour, 6*(1), 72-82.
- Vidal-Meliá, L., Estrada, M., Monferrer, D., & Rodríguez-Sánchez, A. (2022). Does Mindfulness Influence Academic Performance? The Role of Resilience in Education for Sustainable Development. Sustainability, 14(7), Article 7. https://doi.org/10.3390/su14074251
- Wang, D. (2014). Implications of Cognitive Linguistics for English Grammar Teaching. *Crazy English*, 4, 14–16.
- Wang, Y. (2002). The Philosophy of mindfulness Foundation of Cognitive Linguistics: Experiential Philosophy. *Foreign Language Teaching and Research*, 4, 82-89.
- Wen, X. (2002). Research Objectives, Principles and Methods of Cognitive Linguistics. Foreign Language Teaching and Research, 2, 90-97.
- Wu, Q. (2000). Cognitive Psychoanalysis in the Process of Second Language Acquisition. *Foreign Language Teaching as Research*, 4, 290–295.
- Wu, J. (2001). The Application of Cognitive Method in the Teaching of English Intensive Reading. Foreign Language Teaching, 1, 6-14.
- Xie, X., & Guo, J. (2022). Influence of Teacher-and-Peer Support on Positive Academic Emotions in EFL Learning: The Mediating Role of Mindfulness. *The Asia-Pacific Education Researcher*. https://doi.org/10.1007/s40299-022-00665-2
- Yuan, J. (2022). From Life Attitude to Aesthetic Mindfulness. *Journal of Social Science Front, 1*, 153-164.
- Zeilhofer, L. (2023). Mindfulness in the foreign language classroom: Influence on academic achievement and awareness. *Language Teaching Research*, *27*, 136216882093462. https://doi.org/10.1177/1362168820934624
- Zeilhofer, L., & Sasao, Y. (2022). Mindful language learning: The effects of college students' mindfulness on short-term vocabulary retention. *System*, *110*, 102909. https://doi.org/10.1016/j.system.2022.102909
- Zhang, Q. & Wu, X. (2002). Levels of Cognitive Processing and Foreign Language Acquisition: Lexical Cognitive Direct Learning Method. *Modern Foreign Languages*, 2, 175-186.