Languaging in Second-Language Acquisition: Review of Its Cognitive and Affective Roles in L2 Learning

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ABSTRACT

This paper reviews languaging in SLA, with emphasis on its cognitive and affective roles in L2 learning. Based on Vygotsky's Sociocultural Theory and Swain's concept of languaging, this study examines the contribution of spoken and written languaging to L2 grammar acquisition, writing development, and learner motivation. Research suggests that languaging enhances metalinguistic awareness, thus helping learners analyze and refine their language use. Additionally, self-directed and collaborative languaging facilitate deeper cognitive engagement and self-regulation in learning. Studies pertaining to motivational languaging indicate that expressing language-learning goals in writing strengthens motivation and commitment to L2 learning. However, existing research focuses primarily on short-term effects, whereas the effects of individual differences, task design, and long-term engagement on the effectiveness of languaging are not sufficiently analyzed. This paper synthesizes the key findings, discusses the methodological limitations, and highlights the necessity for further investigating the effects of instructional scaffolding and learner characteristics on the sustained benefits of L2 languaging.

Keywords: languaging, second-language acquisition (SLA), sociocultural theory (SCT), metalinguistic awareness, L2 grammar and writing, motivational languaging

1. Introduction

This paper aims to review the studies conducted since the introduction of languaging into the field of second language acquisition (SLA). Language is a natural phenomenon that we often take for granted, rarely reflecting on its role in regulating our cognitive functions and affective states. However, some scholars have recognized the profound impact of language on cognitive development and functioning. Among them was the Russian psychologist Vygotsky (1978, 1986), who challenged the prevailing indifference toward the role of language in human cog-

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nition. He emphasized its fundamental role in developing and facilitating higher mental processes, including cognitive and metacognitive functions.

Building on this perspective, Swain (2006) introduced the concept of languaging, which refers to the process of verbalizing or writing down thoughts to manage cognitively or affectively demanding situations. Swain, Kinnear, and Steinman (2011) argued that languaging is a powerful tool that helps refine and complete our thoughts, enabling deeper contemplation while speaking or writing in an optimally challenging language. This process, in turn, transforms our thinking. Furthermore, Swain (2013) highlighted the potential of languaging to enhance one's affective state. In sum, research has demonstrated that languaging serves as a versatile mediational tool, assisting learners in overcoming various learning difficulties.

This novel concept has attracted considerable attention from researchers, resulting in a growing body of studies exploring the function and effectiveness of languaging across various educational contexts. Nevertheless, research on languaging remains in its early stages. Existing studies are scattered, and readers often find it difficult to identify key issues and major research trajectories. To date, few systematic efforts have been made to comprehensively organize and synthesize the findings of languaging research. Although a recent review by Li, Liu, and Wang (2023) offers a broad overview, it does not include studies conducted in South Korea—particularly those focusing on motivational languaging. Addressing this gap, the present paper aims to provide a structured overview of the current state of languaging research and to offer insights for future inquiry in the field of second language acquisition (SLA).

To achieve this, the paper first traces the origins of languaging, beginning with Vygotsky's sociocultural theory (SCT), followed by Swain's (1995) output hypothesis, and evolving into Swain's (2006) conceptualization of languaging. Next, studies on languaging will be reviewed in two key areas: languaging and second language (L2) learning, with a focus on L2 grammar and L2 writing, and languaging and L2 learning motivation. Finally, a summary of the findings will be presented, along with suggestions for future research to further develop this emerging field.

2. Languaging: Its Origin and Conceptual Development

Swain (1995, 2000) and Swain and Lapkin (1998) emphasized the reflective function of output, demonstrating its crucial role in facilitating language learning and enhancing cognitive abilities. However, Swain (2006) gradually shifted away from

using the term output, replacing it with languaging. This change was motivated by concerns that the term output stemmed from an information processing perspective, which, from the standpoint of SCT, oversimplifies the complexity of learning and teaching. The traditional input-interaction-output model presents learning as a linear process, which SCT challenges by emphasizing the dynamic and socially mediated nature of cognitive development (Sfard, 1998).

The following sections provide a concise overview of Vygotsky's perspective on language and cognitive development, followed by a discussion of the output hypothesis. These discussions will then lead to an exploration of Swain's (2006, 2013) conceptualization of languaging, highlighting its role in SLA.

2.1. Vygotsky's view on language and human mental development

Vygotsky (1986) proposed that human mental functions can be classified into two distinct types: low-level mental functions and higher mental functions (Johnson, 2004). Low-level mental functions include rudimentary cognitive processes such as perception and involuntary attention, whereas higher mental functions encompass more complex cognitive abilities, including "focused attention, problem-solving, evaluation, planning, memory, and logical thinking" (Swain et al., 2011, p. 39). Researchers within SCT have emphasized higher mental functions as the core of human development, highlighting their intricate relationships with cognitive capacity, emotional stability, socioeducational contexts, and cultural heritage. Consequently, identifying the factors that trigger and facilitate higher mental functions has been a subject of significant scientific inquiry for decades.

To explain how higher mental functions develop, Vygotsky introduced the concept of mediation, which can be understood in simple terms as assistance, support, or guidance. Lantolf and Thorne (2006) expanded on this concept, stating that "higher forms of human mental activity are mediated by culturally constructed auxiliary means" (p. 59). These mediational tools, also referred to as artifacts, include both tangible and symbolic resources. Tangible artifacts comprise physical objects such as tools, devices, and utensils, while symbolic artifacts encompass graphic representations, numerical systems, music, the arts, and most significantly, spoken and written language.

Vygotsky (1986) placed language at the center of cognitive development, asserting that it is the primary tool humans use to mediate higher mental processes. In his observations of children's cognitive development, he emphasized that

progress from low-level to higher mental functions requires language as a mediational tool. As a child's cognitive abilities evolve, the way language mediates their thought processes also changes.

Interestingly, the role of language in cognitive mediation shifts depending on the source of regulation in an individual's cognitive development. According to Johnson (2004), SCT outlines three key stages of mental regulation: object-regulated, other-regulated, and self-regulated stages. In the object-regulated stage, a child's cognitive activities are primarily controlled by their immediate environment and physical objects, with language not yet serving as an effective mediational tool. As cognitive development progresses, children enter the other-regulated stage, where they begin to rely on external guidance from more capable peers or adults. At this stage, language assumes a crucial mediational role in the form of social speech, allowing individuals to engage in interactions that facilitate learning and behavioral regulation (Swain et al., 2011). Functioning on an interpersonal level, language becomes an essential tool for communication and cognitive support.

Through continued social interaction, children eventually internalize language, leading to the self-regulated stage, where they gain the ability to regulate their own thoughts and actions independently. A significant development in this phase is the emergence of egocentric (private) speech, which serves as an intermediary step between external guidance and internal cognitive control (Johnson, 2004). As private speech gradually transforms into inner speech, self-directed language use becomes fully internalized, enabling independent cognitive functioning. Johnson (2004) further emphasizes the relationship between private speech and inner speech, illustrating how language evolves from a tool for external mediation into an integral part of internal thought processes. This developmental transition highlights the fundamental role of language as both a social and cognitive mediational tool, shaping human learning and higher-order thinking processes.

Vygotsky (1986) argued that private speech plays a crucial role in children's self-regulation and cognitive development, serving as a self-guiding mechanism. It is closely linked to the development of consciousness, problem-solving ability, and meta-cognitive skills. Private speech is most commonly observed when a child encounters a cognitively demanding task that exceeds their current developmental level. In such situations, private speech provides a mediational bridge between the task at hand and the child's existing cognitive abilities. As Johnson (2004) explains, "private speech provides the child with metacognitive tools such as planning, guiding, and monitoring of activity that exceeds the child's current level of cognitive development" (p. 113).

At the self-regulated stage, language evolves into inner speech, allowing individuals to control their higher mental processes with minimal reliance on external mediation. Unlike private speech, which is overtly verbalized, inner speech occurs at the intrapersonal level and exhibits distinctive functional and structural characteristics (Johnson, 2004). While private speech is audible and explicit, inner speech is silent, dynamically shifting, and purely semantic, continuously oscillating between thought and language (Vygotsky, 1986). Swain et al. (2011) further describe inner speech as the transformation of private speech into a form that is "abbreviated, agglutinated, and fragmented" (p. 39). In essence, inner speech becomes a condensed and highly efficient cognitive tool, enabling individuals to process complex thoughts in a more abstract and fluid manner.[1] It is important to note that inner speech and thought are distinct but highly interrelated processes (Swain, 2013). This distinction aligns with Vygotsky's argument that language is not merely a vehicle for thought but a fundamental component that both shapes and enhances cognitive processes. In summary, inner speech serves as a mediating tool for higher mental functions, facilitating the refinement and organization of thoughts and ideas.

Examining human cognitive development through the lens of SCT, we can conclude that across its three developmental stages, language—whether in the form of social speech, private speech, or inner speech—plays an indispensable role in fostering higher-order mental functions. Through the gradual internalization of social speech, transitioning from private speech to inner speech, children acquire independent control over their cognitive processes. This principle is fundamental to SCT, which posits that higher mental functions originate in social interactions before becoming internalized at the individual level (Johnson, 2004; Lantolf & Poehner, 2023; Vygotsky, 1978, 1986). This perspective is further reinforced by the claim that "the study of human mental development is the study of how mediated means, which are symbolic and sociocultural in nature, are internalized (that is, appropriated) by the individual" (Johnson, 2004, p. 111).

2.2. The output hypothesis and languaging

Swain's (1995) research on French immersion students in Canada concluded that

[1] Vygotsky (1986) distinguished between the sense of a word—its individually internalized or appropriated meaning—and its meaning, which refers to its conventional definition as found in a dictionary. He argued that the sense of a word inevitably varies among individuals, as it emerges from one's unique psychological experiences and personal history. Consequently, inner speech is often highly incomprehensible to others.

comprehensible input (Krashen, 1985) alone was insufficient for developing full competence in an L2. Despite receiving extensive comprehensible input in French for nearly seven years, most immersion students continued to produce numerous grammatical errors and non-target-like utterances in both spoken and written L2 production. Swain (1995) observed that in their immersion classrooms, students were rarely given opportunities to produce extended utterances, and teachers seldom pushed them to use the L2 in ways that exceeded their current proficiency. As a result, Swain argued that L2 output, defined as the process by which language learners produce spoken or written language in meaningful contexts, plays a more critical role in L2 learning than input alone. She identified three key functions of output in L2 development: (a) noticing the gap, (b) testing hypotheses, and (c) reflection.

Swain (1995) asserted that being pushed to produce linguistic output encourages L2 learners to notice the gap between their current L2 ability and the proficiency required to accurately express their thoughts. Once they become aware of this gap, learners actively attempt to use different L2 forms to bridge it. This process may lead them to formulate hypotheses about whether a newly attempted L2 structure is grammatically correct and can precisely convey their intended meaning. By producing linguistic output, learners gain the opportunity to test these hypotheses in real-time communication.

Among the three functions of output, Swain placed particular emphasis on the reflective function, especially in contexts where L2 learners engage in collaborative dialogues to refine their grammatical accuracy (Swain, 2000; Swain & Lapkin, 1998).[2] Drawing from SCT, she argued that the reflective function of output, as observed in collaborative dialogues, exemplifies language's mediating function in facilitating higher mental processes—in this case, L2 learning (Swain, 2006, 2013; Swain et al., 2011).

By integrating SCT and the Output Hypothesis, Swain (2006) identified an intersection between SCT's principle that language is the most essential mediational tool and the reflective function of output. She argued that verbalization for

[2] Swain's studies have assessed output by analyzing learners' spoken or written L2 production through language-related episodes (LREs), defined as "any part of a dialogue in which students talk about the language they are producing, question their language use, or other- or self-correct" (Swain, 1998, p. 70). These analyses typically involve examining the frequency and accuracy of L2 use, as well as evaluating the grammatical complexity and appropriateness of the structures employed. Researchers often code specific linguistic features within LREs and track changes over time to assess development in learners' L2 proficiency, most often in French.

reflection facilitates higher mental functions, and when applied to SLA, verbalization fosters L2 learning through its reflective function.

Swain (2006) rejected the continued use of the term, output, to describe this phenomenon, as she believed that output carried the limitations of the conduit metaphor, which conceptualizes language merely as a vehicle for transmitting a fixed message that already exists as thought (p. 95). To better capture the dynamic and interactive nature of language use, Swain proposed the term languaging, which she defined as "an action—a dynamic, never-ending process of using language to make meaning" (p. 96). She further clarified the concept of languaging as follows:

> The term languaging is intended to mean something different than just talking or conversing, than simply a vehicle for communication. [⋯] The concept of languaging is about the use of language to mediate complex cognitive processing; in effect, to talk one's way into understanding. [⋯] In my view, the concept of languaging opens up how we might see the role of language in cognition: as an agent in the creation of higher mental processes and as a mediator of them. (Swain, 2013, p. 5)

Swain (2006) asserted that individuals can experience "the coming-to-know-while-speaking phenomenon" (p. 97) through the process of languaging. Notably, languaging serves as a cognitive tool that helps individuals navigate complex cognitive tasks, activating and enhancing higher mental processes.

It is important to clarify that not all linguistic production (whether spoken or written) qualifies as languaging. Swain et al. (2011) argued that language used for simple social functions, such as passing along a message, expressing friendliness, or offering support, does not constitute languaging, as it does not serve as a cognitive tool to mediate thinking (p. 44). Swain, Lapkin, and Deters (2013) further emphasized that true languaging must be effortful, cognitively demanding, and beyond the level of everyday communication. Examples of languaging include remembering, attending, problem-solving, decision-making, and planning, all of which involve the use of spoken or written language as a means of cognitive mediation (Swain et al., 2013, p. 2).

In summary, spoken or written languaging, whether conducted collaboratively with others or privately, mediates higher mental processes by facilitating deep

reflection on externalized thoughts in learning situations. Additionally, Swain (2013) later proposed that languaging not only enhances cognitive functioning but also contributes to affective benefits, such as increased self-esteem and a greater sense of well-being.

3. Research on Languaging

This section introduces studies conducted since the conceptualization of languaging in the field of SLA. Before analyzing the literature on this topic, a systematic review of the existing academic works was conducted. To collect the data, the Web of Science (WoS) database served as the primary source. As a first step, the keyword "*languaging*" was entered, which yielded 103 research articles. After excluding studies on unrelated topics such as *translanguaging* and general review articles on sociocultural theory, a total of 36 relevant papers were retained. These were categorized into three broad thematic areas: (a) languaging and L2 grammar learning (n = 21), (b) languaging and L2 writing (n = 13), and (c) languaging and L2 learning motivation (n = 2).[3] For inclusion in the present review, only journal articles that had been cited more than ten times were selected. In addition, for studies published in South Korea, the Korea Citation Index (KCI) database, operated by the Korea Research Foundation, was consulted, resulting in the identification of eight relevant journal articles as of February 2025. Furthermore, selected book chapters were also reviewed and incorporated into the analysis. For instance, the edited volume *Perspectives on Language as Action* includes a dedicated section on languaging, from which three chapters—Watanabe (2019), Kim (2019), and van Compernolle and Kinginger (2019)—were considered in this review.

Among the three areas in languaging, studies have first investigated the effectiveness of languaging in L2 grammar learning, with a particular focus on its reflective function. That is, researchers have examined how spoken or written

[3] Research examining the relationship between affective factors and languaging is relatively scarce in the field of SLA. Most previous studies have only briefly addressed this relationship, with primary attention given to the role of languaging in facilitating L2 acquisition. A recent study by Ishikawa and Suzuki (2023) is a notable exception, as it specifically explored the influence of learners' language aptitude on their engagement in languaging activities. Aside from this study, the majority of existing research has focused on motivation as the primary affective variable in languaging-related investigations (e.g., Kim, 2019; Kim & Kim, 2024).

reflections on grammatical rules facilitate L2 grammar acquisition. Within this area of research, key variables of interest include the type of languaging (e.g., grammar-focused vs. lexis-focused), the quantity of languaging, learners' proficiency levels, and the types of classroom tasks employed.

Regarding languaging and L2 writing, research has primarily explored how L2 learners benefit from languaging within collaborative dialogues during collaborative writing tasks. These studies aim to understand how learners engage in co-constructed meaning-making processes that enhance their writing proficiency.

Finally, studies on languaging and L2 learning motivation have examined how languaging influences learners' motivational development, particularly in relation to Dörnyei's (2005, 2009) L2 Motivational Self System, with a specific focus on the concept of the ideal L2 self. This aspect will be addressed concisely in the relevant section.

3.1. Languaging and learning L2 grammar

This section is divided into two parts based on the mode of languaging: spoken and written. First, studies examining the effects of spoken languaging on L2 grammar learning will be reviewed, followed by an analysis of how written languaging facilitates L2 grammar acquisition.

3.1.1. Spoken languaging for learning L2 grammar

Swain, Lapkin, Knouzi, Suzuki, and Brooks (2009) examined the impact of spoken languaging on learning the grammatical concept of voice in French, which includes active, passive, and middle voice. They also explored the relationship between the quality and quantity of languaging and L2 performance, assessed via immediate and delayed post-tests. The study involved nine intermediate French learners at a Canadian university and followed a structured sequence: pre-test, languaging intervention, immediate post-test, interview, and delayed post-test. In this study, languaging was operationalized and measured through the identification and coding of Languaging Units (LUs), which were defined as segments of students' verbalizations directly related to conceptual understanding of the grammatical concept of voice in French. These LUs were categorized into five types: paraphrasing, inferencing (further subdivided into integration, elaboration, and hypothesis formation), analyzing, self-assessment, and rereading. The quantity

of languaging was assessed by counting the total number of LUs produced during the languaging stage, while quality was inferred from the type and distribution of these units. Participants were divided into three groups—high, middle, and low languagers—based on the number of LUs they produced: high languagers (Heidi and Holly) averaged 125.5 LUs, middle languagers (five participants) averaged 76.8 LUs, and low languagers (Lisa and Lucy) averaged 39.5 LUs. This categorization enabled comparisons across groups in terms of their performance on immediate and delayed posttests, thus examining the relationship between languaging and conceptual understanding.

In this study, high languagers exhibited a deeper understanding of grammatical and semantic distinctions, frequently employing metalinguistic terms and identifying the middle-passive voice relationship. Middle and low languagers displayed uneven distributions of LU types; middle languagers overused analysis-related LUs, while low languagers underutilized rereading LUs. Some low languagers failed to recognize key linguistic relationships, highlighting the role of qualitative engagement in the internalization of grammatical concepts.

Building on this, Knouzi, Swain, Lapkin, and Brooks (2010) conducted a microgenetic analysis of two participants—Heidi (high languager) and Lisa (low languager)—to examine conceptual development through languaging. Heidi actively integrated prior knowledge, engaged in internal dialogic interaction, verbalized cognitive conflicts, and tested hypotheses, deepening her conceptual understanding. In contrast, Lisa exhibited limited elaboration, struggled to verbalize thoughts, and approached the task as rule memorization, limiting her conceptual development. The study underscored the importance of situating languaging within a learner's Zone of Proximal Development (ZPD) for effective self-scaffolding.[4)]

Brooks, Swain, Lapkin, and Knouzi (2010) extended these findings to additional learners, further investigating languaging's role in L2 conceptual development. Separately, Källkvist (2013) explored languaging in teacher-led discourse (TLD) across different grammar-focused tasks, focusing on translation. The study, involving 79 Swedish university students, compared languaging in translation tasks versus other grammar tasks (gap, noticing, composition, text-editing). Recorded classroom interactions were analyzed, categorizing language-related episodes

4) The term *scaffolding* was first introduced by Wood, Bruner, and Ross (1976). It refers to the "process that enables a child or novice to solve a problem, carry out a task, or achieve a goal that would be beyond their unassisted efforts" (p. 90). Scaffolding involves various forms of assistance from an adult or expert, including controlling task difficulty, providing hints, modeling, transmitting knowledge, and posing prompting questions (Knouzi et al., 2010).

(LREs) into teacher and student LRE turns, with scaffolding classified into recruitment, reduction of degrees of freedom, direction maintenance, marking critical features, frustration control, and demonstration.

Findings showed that translation tasks prompted more student-initiated LREs, deviating from the traditional initiation-response-feedback (IRF) pattern, fostering open-ended student-teacher discussions. In contrast, grammar-focused gap and noticing tasks elicited teacher-guided accuracy-focused LREs. Translation tasks, emphasizing lexical choice and meaning-making, transformed classrooms into interactive learning spaces, highlighting distinct effects of different task types on languaging.

3.1.2. Written languaging for learning L2 grammar

Unlike Swain et al. (2009), who conducted a qualitative analysis of nine participants' spoken languaging behaviors and categorized them as high, middle, or low languagers, studies on written languaging for learning L2 grammar employed a more quantitative, group-based experimental design. Their primary aim was to examine the statistical effects of written languaging interventions by comparing control and experimental groups.

Ishikawa (2013) conducted an experimental study investigating three key aspects of written languaging (WL) among Japanese learners of English: the primary linguistic focus of their written languaging, its effectiveness in facilitating L2 grammar learning, and its potential long-term effects. In this study, written languaging was operationalized as reflective note-taking, referred to as metanotes. The participants were 14 Japanese college students majoring in business administration, whose relatively low English proficiency was determined by their TOEIC scores, which ranged from 255 to 440, with an average of 354. They were divided into two groups: the control group (CG) and the experimental group (EG).

The study was conducted over eight weeks, following a structured sequence: a practice session on metanote-taking (Week 1), a pre-test (Week 2), the treatment and an immediate post-test (Week 3), and a delayed post-test (Week 4) administered four weeks later. The pre-test consisted of a grammar recognition task in which participants were required to judge the grammaticality of 15 sentences and correct any identified errors. Among these, five sentences functioned as distractors, four were grammatically correct, and six contained errors, with the target grammatical feature being English tense consistency. The same test was admini-

stered in both the immediate and delayed post-tests, with randomized item orders in each iteration. The collected test data were analyzed using t-tests and analysis of variance (ANOVA).

During the treatment, participants translated four Japanese sentences into English, compared their translations with model translations, and completed the immediate post-test and an exit questionnaire. The key difference between the EG and CG was that only the EG was allowed to take metanotes during the translation and comparison tasks, in which they wrote comments, problems, or questions related to the task in Japanese. The researcher categorized the metanotes into three types: grammar-focused notes (G-notes), lexical notes (L-notes), and other notes (O-notes), which included reflections on punctuation and general learning difficulties. The findings revealed that L-notes were the most frequently produced metanote type, accounting for 82% in the immediate post-test and 68% in the delayed post-test, followed by G-notes and O-notes. Notably, the number of G-notes doubled in the delayed post-test (11 G-notes) compared to the immediate post-test (6 G-notes).

Despite these findings, ANOVA results found no significant differences between the two groups or within each group across the three test stages, indicating that statistical analysis did not support the immediate or long-term effect of metanotes on L2 grammar learning. However, a qualitative analysis of the participants' metanotes revealed notable individual differences. Two high metanote takers, Yuko and Ken, exhibited higher post-test scores compared to their pre-test performance, while two low metanote takers, Ryo and Emi, showed little to no improvement. Yuko and Ken took G-notes on the target grammatical form and engaged in cognitive comparisons of their translations with the model translations, whereas the low metanote takers did not. These findings suggest that while metanotes did not show statistically significant effects across the full sample, they may still benefit certain learners, particularly those who actively engage in grammatical analysis.

While Ishikawa's (2013) study was conducted in a Japanese EFL context, where English is predominantly learned as a foreign language in formal educational settings, Hwang (2019) examined written languaging in a Korean EFL context, where educational and cultural expectations regarding language learning may differ. Hwang's study, conducted with 95 Korean EFL learners, provided a broader empirical basis for evaluating the effectiveness of written languaging in L2 grammar acquisition. The participants were randomly assigned to three groups: (1) a +WL group, which received grammar explanation and performed a dictogloss task while engaging in

written languaging, (2) a -WL group, which received grammar explanation but did not engage in written languaging, and (3) a control group, which took only pre- and post-tests. Statistical analyses revealed that the +WL group outperformed the -WL and control groups in both recognition and production post-tests, with the largest mean difference observed between the +WL and control groups.

Unlike Ishikawa (2013), who found no statistically significant impact of written languaging, Hwang (2019) demonstrated clear learning gains among Korean learners who engaged in WL. The effectiveness of WL in Hwang's study aligns with Vygotskian SCT, which posits that language mediates cognitive development and that written languaging can serve as a self-scaffolding tool for learners to internalize grammatical structures. As previously stated by Swain's (1995) output hypothesis, the act of producing language—whether through written reflection or verbalization—enhances learning by prompting learners to notice gaps in their understanding and actively refine their linguistic knowledge. Hwang's study further reinforces these theoretical perspectives by providing empirical evidence that engaging in WL enhances both grammatical recognition and productive accuracy.

Expanding on the broader implications of written languaging, Suzuki and Itagaki (2009) examined the relationship between L2 proficiency level, grammar exercise type, and languaging type. Their findings indicated that both low- and high-intermediate learners produced more grammar-oriented languaging in comprehension-oriented tasks than in production-oriented tasks, supporting the idea that cognitive load affects grammatical focus. Additionally, high-intermediate learners engaged in more grammar-oriented languaging than low-intermediate learners, suggesting that a certain level of psycholinguistic readiness is required for effective grammar analysis.

Taken together, these studies underscore the role of WL as an effective self-scaffolding tool that fosters metalinguistic awareness and facilitates L2 grammar acquisition. Ishikawa's (2013) study in the Japanese context suggested that WL may not produce statistically significant improvements across all learners; however, qualitative findings indicated potential benefits for high metanote takers. In contrast, Hwang's (2019) study in Korea provided stronger empirical support for the effectiveness of WL, demonstrating clear gains in both grammatical recognition and production. The divergence in findings may be attributed to variations in sample size, instructional design, or broader educational contexts. Notably, the participants in Ishikawa's study were business administration majors with no specialized focus on English, whereas the Korean learners in Hwang's study represented a range of academic disciplines, including the humanities, aeronautical

science, health science, and engineering. This latter group may have had greater exposure to competitive academic environments where grammatical accuracy is more strongly emphasized. These contextual differences underscore the need for further cross-cultural research on WL and its role in L2 grammar development.

3.2. Languaging and learning L2 writing

The investigation of languaging in relation to L2 linguistic properties has also been explored in the field of L2 writing. Mirzaei and Eslami (2015) examined the impact of ZPD-activated collaborative writing tasks on learners' use of metadiscourse, particularly focusing on cohesive devices and linguistic elements that shape a writer's tone and stance. The study investigated how scaffolding within peer interactions contributed to the microgenetic development of L2 writing skills. Conducted over 10 weeks with 120 Iranian undergraduate EFL students, the research compared four instructional conditions: teacher-fronted, input-flooded, ZPD-free, and ZPD-activated. The findings indicated that while all groups showed improvement, students in the ZPD-activated condition—who were paired with peers of varying proficiency levels and trained to provide scaffolding—demonstrated the most significant gains in metadiscourse awareness and writing quality. This suggests that peer interaction, when structured within a ZPD framework, can effectively facilitate the internalization of advanced L2 writing strategies.

Similarly, Watanabe (2019) explored the role of peer interaction in L2 writing, comparing collaborative and individual writing tasks among Japanese university students. The study found that while some collaborative pairs produced higher-quality texts, others did not benefit from working together. Specifically, expert/novice pairs showed greater improvement for the novice, but not for the expert, while dominant/dominant and dominant/passive pairings resulted in lower-quality writing. A key insight from Watanabe's study was that even during individual writing, learners engaged in private speech—verbalizing their thoughts to mediate their own writing process. This finding aligns with Swain's (2006, 2010) argument that languaging is not only a social phenomenon but also a cognitive tool that facilitates L2 learning, regardless of whether it occurs in interaction or through self-reflection.

Expanding on this discussion, Kim (2022) examined the role of self-languaging in L2 writing by analyzing how Korean university students engaged in private speech during composition. The study involved 20 students of varying proficiency levels, who participated in three online writing sessions while verbalizing their

thought processes. Findings revealed that both high- and low-proficiency learners strategically used self-languaging as a self-scaffolding tool. The most frequently employed strategies were repetition, translation, and reading aloud, reflecting cognitive processes aimed at reinforcing linguistic accuracy and coherence. However, high-proficiency learners demonstrated greater use of self-assessment and justification strategies, which involved evaluating their writing choices and articulating reasons for linguistic decisions. This suggests that more proficient learners may employ languaging not only as a problem-solving tool but also as a means of deepening their grammatical awareness and textual organization.

A key contribution of Kim's (2022) study is its emphasis on learners' perceptions of languaging. While many participants initially regarded private speech as unnatural or distracting, their attitudes became more positive over time. Ultimately, 13 out of 20 students perceived self-languaging as beneficial, particularly for generating ideas, confirming linguistic accuracy, and organizing their writing. This finding aligns with Watanabe's (2019) study, which demonstrated that familiarity with verbalization influenced learners' willingness to adopt it as a writing strategy. However, Kim (2022) also observed that some students remained resistant to private speech even after multiple writing sessions, suggesting that individual differences in cognitive and affective factors may significantly impact the effectiveness of self-languaging in L2 writing.

In sum, the studies by Mirzaei and Eslami (2015), Watanabe (2019), and Kim (2022) underscore the diverse ways in which languaging mediates L2 writing development. While collaborative writing within a structured ZPD framework can provide external scaffolding that enhances learners' metadiscourse use, self-languaging serves as an internal scaffolding tool that enables learners to regulate their cognitive processes and refine their writing. These findings highlight the importance of designing L2 writing instruction that balances collaborative and individual languaging opportunities, ensuring that learners not only receive peer support but also develop the ability to self-scaffold through private speech.

3.3. Languaging and L2 learning motivation

One of the most notable advances in recent languaging research would be its exploration into affective domains in SLA, particularly L2 learning motivation. Kim (2019) examines the impact of languaging activities on L2 learning motivation using a classroom-based approach. The study investigates three distinct types of motiva-

tional languaging interventions (MLIs) to determine their relative effectiveness in enhancing students' motivation for learning English in Korea. These interventions include individual written activities such as English learning diaries and opinion writing, as well as spoken group discussions. The study is framed within the context of the L2 Motivational Self System, particularly focusing on how verbal or written expression of future self-concepts in the learners' first language (L1) can enhance motivation. One of the major findings of Kim (2019) is that students who engaged in written individual activities demonstrated a significant increase in their motivation, including a stronger development of the ideal L2 self. Conversely, those who participated in group discussions showed no significant motivational changes. These findings suggest that the act of externalizing thoughts through writing provides students with a clearer vision of their future L2 selves, reinforcing motivation more effectively than spoken interaction in groups.

Building upon these earlier findings, Kim and Kim (2024) extend the investigation into the differential effects of individual and group writing on L2 motivation. Unlike Kim (2019), which included spoken discussions as one of the MLIs, the later study narrows its focus to written languaging activities, comparing individual writing versus group writing. Conducted with high school EFL learners, this study adopts a more controlled experimental design by dividing participants into two experimental groups (individual writing and group writing) and a control group. The intervention lasted for six weeks, during which students engaged in writing exercises designed to externalize their motivations, anxieties, and goals regarding English learning.

One of the key distinctions between Kim (2019) and Kim and Kim (2024) lies in the methodological refinement of the latter study. While Kim (2019) examined written and spoken MLIs broadly, Kim and Kim (2024) systematically isolated and contrasted individual writing versus group collaborative writing, allowing for a more precise analysis of the effects of written languaging on motivation. The results indicate that while both individual and group writing enhanced students' L2 motivation, the individual writing group demonstrated more significant and lasting motivational increases. This suggests that self-reflection, facilitated through personal written expression, plays a crucial role in internalizing the ideal L2 self. Moreover, students in the individual writing group exhibited greater gains in motivated L2 learning behavior and English proficiency compared to those in the group writing condition.

Another notable difference between the two studies is the theoretical emphasis.

Kim (2019) primarily focuses on languaging as a tool for enhancing motivational self-concepts, particularly through the lens of Dörnyei's (2005) L2 Motivational Self System. In contrast, Kim and Kim (2024) integrate insights from educational psychology, specifically the role of self-reflection and metacognitive awareness. The study draws on research in psychology that highlights how self-reflection fosters a deeper sense of self-awareness and goal-setting, thereby reinforcing motivation. The findings align with previous research suggesting that written languaging creates permanent artifacts that students can revisit, reinforcing their motivation over time.

Furthermore, while Kim (2019) treats group discussion as a separate MLI, Kim and Kim (2024) position group writing as a hybrid form that combines elements of individual reflection with collaborative exchange. However, the results indicate that group writing did not facilitate the same level of motivational gains as individual writing, likely due to the presence of social interaction effects that diverted focus from deep self-reflection. In contrast to previous research on collaborative writing, which has highlighted its benefits for linguistic development and accuracy, Kim and Kim (2024) demonstrate that collaborative writing may not be as effective for motivational enhancement. The cognitive load associated with negotiating and integrating multiple perspectives may reduce the depth of individual self-reflection, ultimately making the experience less personally impactful for learners.

The findings of Kim and Kim (2024) thus offer an important refinement of Kim's (2019) conclusions. While both studies affirm the efficacy of languaging activities in fostering L2 motivation, they differ in their assessment of the optimal mode of engagement. Whereas Kim (2019) suggests that any form of written expression is more effective than spoken interaction, Kim and Kim (2024) emphasize that individual writing is the most effective form of motivational languaging, outperforming even collaborative written tasks. The metacognitive and affective dimensions of writing, particularly when undertaken individually, seem to be the key mechanisms driving enhanced L2 motivation. In sum, these studies contribute to a growing body of research advocating for motivational intervention strategies that emphasize self-reflective writing in L2 learning contexts, providing valuable implications for curriculum design and instructional practices in EFL education.

4. Summary and Suggestions

Research on languaging in SLA has predominantly explored its cognitive and

affective roles, particularly in L2 grammar learning, L2 writing development, and L2 learning motivation. Studies on written languaging and L2 grammar learning (Hwang, 2019; Ishikawa, 2013) consistently highlight two key findings. First, learners' achievement in grammar is positively correlated with the quantity and quality of their languaging. Second, proficiency level influences the nature of languaging, with low-level learners tending to focus more on lexis, while high-level learners engage more in grammar-oriented reflection. Similarly, languaging in L2 writing has been shown to foster metadiscourse awareness and textual coherence, particularly in collaborative contexts (Mirzaei & Eslami, 2015). However, recent studies (Kim, 2022) indicate that self-languaging, or private speech during composition, serves as a crucial self-scaffolding tool, allowing learners to regulate their cognitive processes independently. In the affective domain, written languaging has been found to enhance L2 learning motivation, particularly when learners engage in motivational languaging interventions that encourage articulation of their ideal L2 self (Kim, 2019; Kim & Kim, 2024).

Building on these findings, several key directions emerge for future research and pedagogy. First, learners need sustained exposure to languaging to fully benefit. Swain et al. (2009) and Ishikawa (2013) observed that some learners initially misunderstand languaging as mere repetition of correct answers, rather than as a tool for reflection. Low-proficiency learners, in particular, may require extended practice to internalize languaging. Mirzaei and Eslami (2015) showed that students initially passive in collaborative writing became more active through repeated peer interaction. Likewise, Kim (2022) found that L2 writers who initially resisted self-languaging grew more comfortable over time, suggesting that familiarity enhances its self-regulatory effects. These findings highlight the need to integrate languaging as an ongoing instructional practice rather than a one-time intervention.

Second, future research should examine languaging in e-learning environments and adopt more rigorous methodologies. Post-COVID-19, L2 instruction has increasingly incorporated digital tools, including blended learning and video conferencing. In 2025, Korea's Ministry of Education introduced AI-assisted digital textbooks, likely influencing languaging use in English education. Yet, with few exceptions (e.g., Pourdana, 2023), this area remains underexplored. Additionally, most studies rely on small samples, often fewer than 100 participants. While microgenetic analyses and case studies (e.g., Knouzi et al., 2010) provide valuable insights, large-scale experiments with diverse participants are needed to enhance generalizability. Future research should not only increase sample sizes but also

ensure balanced group composition and rigorous controls to isolate the effects of languaging interventions. Robust designs will yield clearer evidence of languaging's role in L2 development across diverse contexts.

Third, greater attention should be directed toward the affective dimensions of languaging. Motivational interventions (Kim, 2019; Kim & Kim, 2024) have shown that writing about one's ideal L2 self can enhance motivation and engagement. Beyond motivation, languaging may also alleviate anxiety and increase learners' willingness to communicate; however, these affective outcomes remain largely understudied, with a few notable exceptions (e.g., Ishikawa & Suzuki, 2023). Given that some learners initially resist private speech or perceive self-languaging as distracting (Kim, 2022), future research should investigate learners' emotional responses and how their attitudes toward languaging evolve over time. Such inquiry could contribute to the development of more tailored and affectively responsive languaging-based interventions.

Languaging remains a promising area of research in SLA, offering insights into both cognitive and affective dimensions of L2 learning. Its effectiveness in grammar acquisition, writing development, and motivation enhancement underscores its pedagogical potential. However, to fully harness the benefits of languaging, future studies should refine instructional methodologies, ensure sufficient learner training, and explore its broader emotional and communicative effects. As L2 education continues to evolve, a deeper understanding of how learners use language to mediate their own cognitive and affective development will provide valuable guidance for both researchers and educators.

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