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Cognitive Linguistics: Disclosure of Cognitive Processes in Language Perception from an Analytical Perspective

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ABSTRACT

Cognitive theorists propose that the cohesion of human cognition directs cognitive functions, including all higher cognitive processes like memory, language, problem-solving, etc., are different manifestations of the same basic system. This postulate is at odds with the mental conception of language acquisition, which assumes the existence of a specific linguistic technique pre-programmed by a universal grammar. This concept has given rise to the dichotomy of acquisition and learning, which contrasts two independent ways of perceiving a foreign language: on the one hand, unconscious and accidental acquisition, which provides tacit knowledge that allows achieving spontaneous language use and constitutes linguistic competence. The paper proposes the concept of foreign language learning as part of the cognitive tradition, in which learning is attained through problem-solving in purposeful activities, and in which explicit and implicit, declarative, and procedural processes are integrated into a single, complex operation, forming part of the overarching mechanisms of cognitive processes. The paper uses a closed questionnaire survey of 1st–4th year students of the State Higher Educational Institution "Uzhhorod National University" and the Ukrainian Humanities Institute, Faculty of Humanities, Department of Journalism. The developed questionnaire presents 14 cognitive strategies in foreign language learning. The results of the survey showed that students equally often use language patterns, subtext, context, adaptation to different language situations, information reconstruction, and mnemonics.

Keywords: Cognitive processes; Memory; Language; Problem-solving; Declarative memory

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1. Introduction

1.1 Issue under study

The theoretical approach to the development of perception, cognition, and language by Paul Van Gert, which we rely on in this paper, is based on the classical cognitive psychology distinction between declarative knowledge, which consists of the set of information necessary to generate an action, and procedural knowledge, which consists of the procedures for implementing an action. However, foreign language teachers often have a narrow view of declarative knowledge and its relationship to procedural knowledge. There is a tendency to view declarative knowledge as something that is given by grammar teaching in a traditional classroom and is subsequently doomed to be simply automated, i.e., made implicit and unconscious. In contrast, Van Geert (2017) explains his concept of the declarative system from an analytical perspective.

1.2 Importance of the problem

From an analytical perspective, a declarative knowledge system has the ability to store experience in any area, including teachings, models of correct behavior, successes, and failures, etc. The main feature of a declarative system is that we can easily enter relevant knowledge into our system, but considerable effort is required when it comes to turning this knowledge into practice.

For example, in foreign language learning, grammatical input is only one part of declarative knowledge, the part that corresponds to direct instructions (Zhang, 2023). The same status should be given to the knowledge gained from textual input, which gives a direct insight into the language. Finally, the meta-language reflection in language learning is fed by knowledge (linguistic, referential, conceptual, pragmatic, etc.) that comes from their native language proficiency. This knowledge may be more or less explicit ("meta-linguistic" or "epilinguistic"), but it is nevertheless declarative knowledge (Wyer Jr, 2022).

The problem, then, is that since declarative memory is a reservoir of facts, knowledge, and experience, it is necessary to distinguish from this declarative memory the procedural memory that contains the rules of action that govern the know-how of analytics. In this context, a procedural rule consists of a condition, which defines the circumstances under which it can be applied, and an action, which defines what should be done when the procedural rule is applied (Aydinbek, 2022). The rule of action (procedural rule) can be translated into a verbal form by presenting it as a practical deduction (**Figure 1**):

Figure 1. Analytical procedural form of cognition.

Source: Geert (2017).

In the case of a foreign language, this can be a formal rule, as a procedural rule specifies the purpose and specific circumstances of the action (Jalilbayli, 2022). A procedural rule is the cognitive side of an action that precedes the operation itself and guides behaviour. Under the influence of external stimuli or internal computations, action rules are activated in working memory by a matching process that compares the data available in working memory with the conditions under which the action is activated (Jamalli, 2023).

1.3 Literature review

In the context of the present work, a distinction should be made between traditional and cognitive approaches to language perception. The traditional approach is based on the didactic logic of knowledge transfer and implementation in a sequence of three phases (Karyolemou, 2022). The initial phase focuses on grammatical structure, which is presented explicitly or implicitly to maximise comprehension and understanding of the underlying rule. The learning phase, based on supervised exercises with predefined meanings, is then used to automate this rule, thus converting declarative knowledge into procedural knowledge. In the final phase of production, the degree of control

and support is reduced, and the learner is forced to express themselves more spontaneously in the target language, basing their utterances on meanings that they have conceptualised for themselves (Li et al., 2022). From a cognitive perspective, the learning challenge inherent in the traditional approach is characterized by two aspects: language data organised according to descriptive grammar that the learner has not yet mastered, which can be used by the learner to build an internal grammar, and gradual adaptation to language purposes that become increasingly communicative and authentic (Aydinbek, 2022).

According to Watrin, Schroeders and Wilhelm (2023), the pedagogical rule, as it appears in most foreign language teaching textbooks, has a dual status. It is, first of all, a descriptive rule that is part of the system developed by grammarians to account for the functioning of language (Kharitonenko, 2022). At the same time, it is a practical rule designed to help the student develop know-how. In the same aspect, scholars argue that the ambivalence of the pedagogical rule demonstrates the simplistic nature of the relationship between declarative and procedural knowledge, as usually assumed in traditional education (Watrin, Schroeders and Wilhelm, 2022).

However, if we turn to the psycholinguistic model of language acquisition, it is the lexicon, not the grammatical rule, that is considered to be the general mediator of language activity and analytical comprehension: "formulation processes are lexicon-driven" (Zimny, 2023). This means that grammatical encoding and phonological encoding are mediated by lexical entries. A verbal message activates lexical items. The syntactic, morphological, and phonological properties of the activated lexical item, in turn, trigger the grammatical, morphological, and phonological encoding procedures that underlie utterance generation (Morgan-Short and Ullman, 2022). The hypothesis that the lexicon is an important mediator between conceptualisation and grammatical and phonological encoding will be referred to as the lexical hypothesis. According to this hypothesis, each lexical item represents a list of at least four processes: The clarification of the object's significance, its syntactic dependencies, its morphological attributes, and the

formal description (Watrin et al., 2022).. In this context, in a related study, Kormos (2023) investigates the mental lexicon, which plays a major role in discourse generation and, therefore, in language learning, and raises the issue of grammatical rules. According to the author, in this conception, grammar rules can only be presented as a general formulation of the properties of certain classes of lexical items, as a link that unites the syntactic and morphological properties of lexical items in a network and classifies them into different classes. For a learner, a grammatical rule is a cognitive result of generalising specific rules that are characteristic of a particular subject. For example, Boone, De Wilde and Eyckmans (2023) prove that when learning German, a learner produces a number of past tense forms (bin/bist/ist gehen, ist bleiben, hat singen, habe geben, habe bekommen) in the course of language activity, while at the same time constructing a general rule for themselves, gradually extending specific rules to a general class of verbs. A pedagogical rule, on the other hand, is always general and requires the learner to immediately recognise the items in the class that the rule covers. Consequently, it frequently occurs that the sole method for a student to identify an item in class for the purpose of applying the rule is by recognizing its properties. If the student has not yet accumulated the linguistic knowledge necessary to apply the rule, the rule remains inert, i.e., unusable for solving communicative tasks. Therefore, according to Suzuki, Nakata and Rogers (2023), its main value can only be as a pedagogical aid in the discovery and construction of declarative knowledge.

1.4 State hypotheses and their correspondence to research design

The hypothesis of the paper, therefore, is that learning a foreign language, which is procedural learning, is that knowledge cannot be directly transferred through teaching and added to existing knowledge but must be reconstructed by the student himself through declarative experience. Because the general principle of learning all know-how is the principle of "Kolb's experiential cycle". But this principle is paradoxical. Therefore, the research question is as follows: Which analytical methodologies or cognitive tactics can be integrated into the teaching

methods for learning a foreign language?

2. Materials and methods

The paper uses a closed questionnaire to reveal cognitive processes in language perception from an analytical perspective to reveal and study in detail the cognitive processes that occur during language perception. The method was used to study two specific cases among the 1st–4th year students of the State Higher Educational Institution "Uzhhorod National University" and the Ukrainian Humanities Institute, Faculty of Humanities, Department of Journalism. The developed questionnaire provides a detailed analysis of the speech situation in order to identify various aspects of English language perception among students of different courses. The use of language tools, semantics, syntax, stylistic devices, and other aspects of the language of 88 students was analysed.

2.1 Identify subsections

At the initial stage of learning a foreign language, students construct a procedural rule from units of declarative knowledge and use general problem-solving procedures, such as inference and analogy, to undertake actions in accordance with their goal, since in a natural communication context a non-native speaker, in order to meet his/her communication needs, often resort to use language forms close to the norm of the target language, either because of deficiencies in his/her interlanguage or because of cognitive limitations imposed by the situation (Maraieva, 2022).

2.2 Participant (subject) characteristics

To conduct the study, we selected n = 88 students from the 1st to 4th years of study and invited them to complete the cognitive strategies section of our proposed questionnaire. The questionnaire consist of 14 items: firstly, students had to evaluate whether they use these strategies in their practice by marking them with + or – signs, and secondly, respondents were asked to rate the frequency of their use (from 1 to 5, with answer options ranging from "never or almost never" to "always or almost always") when learning ESP (English for special purposes).

2.3 Sampling procedures

The questions in the questionnaire correspond to the strategies of "repetition", "language practice in an authentic situation", "comparison with the mother language" and "translation". Since our sample consisted of Ukrainian students, the questionnaire was presented in Ukrainian to avoid misunderstandings that could affect the results of the survey (**Table 1**).

Table 1. Questionnaire on students' cognitive strategies in learning English.

Strategy	Explanation
Use of speech patterns	Reproduction of grammatical formulas, listening, repetition, retelling
Use of context	Understand new material with the help of contextual clues such as dialogues, texts, and documents
Structuring information	Organise new material using diagrams, tables, mind maps, etc
Reconstruction of information	Converting information from one form to another (e.g., translating a text, performing grammar exercises)
Adaptation to different language situations	Learning typical speech patterns, forms of greetings, and responses
Understanding the language system	Analysis of language structures, rules, use of grammar tables, and parsing
Using subtext	Understanding of implicit signs of speech, such as gestures, facial expressions, intonation
Use the context of the speech	Observing the pronunciation of foreign speakers, listening to audio recordings and videos with audio accompaniment
Use of developmental exercises	Use exercises that help develop memory, attention, and thinking
Using mnemonic techniques	Use of special methods of memorisation, such as associative pictures, distributed space
Using visualisation	Imagine pictures, situations, events related to the new material
Active application of learning material	Active communication, written reports, creation of own texts

Source: Zhou, Xi and Lochtman (2023).

It should be noted that these phases of knowledge compilation, when used, are not reduced to simple automation through repetition of operations but should be perceived as a gradual accumulation of real knowledge, leading to reflection on the application of existing rules and allowing students to improve their knowledge.

Sample size, power, and precision

Thus, in accordance with the hypothesis, the two modes of information processing (controlled processing and automatic processing) identified in this paper are far from constituting an exclusive dichotomy of heterogeneous processes, as the proponents of the learning/acquisition dichotomy claim. On the contrary, according to our hypothesis, the first phase of learning is conceived as the construction of procedural know-how based on declarative knowledge during controlled language acquisition. At the same time, foreign language acquisition does not simply move from controlled to automatic processing: the proceduralisation of know-how is accompanied by a process of adjustment under the influence of cognitive control, whereby production is stylised by gradually adapting to the norms of the language being learned.

Measures and covariates

In language learning, the cognitive and the social are closely intertwined. On one side, learning typically adheres to a widely acknowledged standard to facilitate social interaction (Maraieva, 2022). Alternatively, the cognitive process is activated through social collaboration, enabling students to surpass their existing knowledge (Durmishi and Durmishi, 2022). Furthermore, the analytical process of language comprehension is cognitive regulation and generalisation. To demonstrate these processes of analytical learning, the main cognitive strategies of students in spontaneous foreign language interaction were identified.

Research design

The sample consisted of 88 students from five courses of the above-mentioned departments.

Students learned foreign languages beginning with the firs year. Their main foreign language was English. Of these students, 21 are in their first year, 23 are in their second year, 17 are in their third year and 27 are in their fourth year. During their four years of study, the selected students take 58.62% of language and pedagogical courses in English, the rest in French or German, and 18.96% in general English culture.

Experimental manipulations or interventions

For students of these higher education institutions, learning a foreign language is a lifelong process. Therefore, they need to know and use learning strategies effectively in their own learning. On the other hand, some of the students are future teachers of English as a foreign language who also need to teach their students how to use these strategies in their own teaching. Therefore, it is very important that they are aware of the importance of the cognitive process and cognitive-analytical strategies for learning (Bobur, 2023).

3. Results

The results of the survey showed that at the initial stage of language learning, students certainly used the declarative base provided by textual and/or grammatical input, but the linguistic components stored in long-term memory are not just activated, they are reinterpreted to build a procedural rule adapted to the situation. This work of building procedural rules required a certain amount of attention on the part of the subject. Controlled information processing is a slow, inefficient process because working memory has a very limited capacity and is costly in terms of attention resources. Therefore, for effective oral communication, which requires a fast pace of action and good coordination of hierarchical levels of conceptualisation, formulation, and articulation, it is necessary to speed up and automate processing, which implies less consumption of attention resources (Bobur, 2023). Two different processes are involved here in parallel. On the one

hand, there is "composition": simple productions designed to fulfil related sub-objectives are composed into more synthetic productions, which significantly speeds up operations. On the other hand, there is "proceduralisation": declarative information stored in working memory as a condition for activating productions becomes less and less necessary, and attention control is replaced by automatic activation that develops as a result of certain cognitive strategies (**Table 2**).

Table 2. Responses to students' cognitive strategies in learning English.

Strategy	Number of students	Percentage ratio
Use of speech patterns	77	87%
Making connections between new and already learnt knowledge	44	50%
Making connections between new and already learnt knowledge Use of language associations	31	35%
Use of context	37	42%
Structuring information	19	21%
Reconstruction of information	49	55%
Adaptation to different language situations	54	61%
Understanding the language system	20	22%
Using subtext	60	68%
Use the context of the speech	55	62%
Use of developmental exercises	19	21%
Using mnemonic techniques	52	59%
Using visualisation	45	51%
Active application of learning material	17	19%

Source: author's own development

The main social partner of the student is the teacher. His/her intervention is manifested in the introduction of his/her own statements or textual supports that he/she presents, as well as in the feedback that he/she provides in response to the student's statements. It is from this point onwards that the student has to consolidate or modify their declarative knowledge. The results of the survey showed that students use language patterns equally often in their foreign language comprehension - 68% and subtext 68%. The second most frequently used analytical technique is the use of the context of pronunciation (62%). This is followed by adaptation to various language situations (61%), information reconstruction, and the use of mnemonics (52%). These statements are valid as they accurately represents the dynamics of student-teacher interactions and the reported survey results align with established principles of language learning and cognitive processing in educational settings. The overall picture of the disclosure of cognitive processes in speech perception from an analytical perspective is as follows (**Figure 2**):
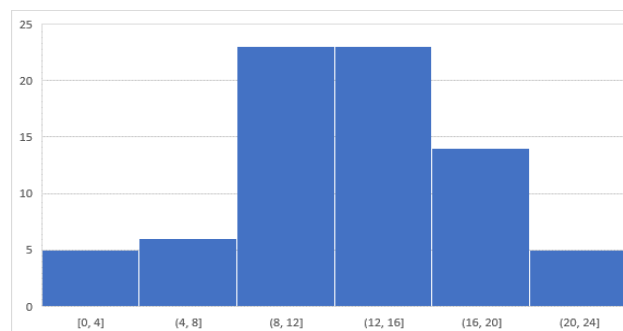

Figure 2. The most productive cognitive processes in language perception from an analytical perspective.

Source: author's own design.

The results showed the most frequent use of

language patterns in the perception of foreign language and subtexts. The teacher also intervenes in this process by organizing practice (exercises, communicative tasks, etc.) (Sydorenko, 2024). In terms of input, Wu (2023) speaks of "textual input" and "grammatical input". The former implicitly involves L2 elements during communication on which the learner can build cognitive work, while the latter gives clear instructions, which are the rules of pedagogical grammar (Zhang, 2023). Two parallel types of feedback can be distinguished here: "comprehension feedback", which refers to the student's utterance and may implicitly provide elements that invite him/her to question the assumptions he/she has made about L2 structures, and "corrective feedback", which explicitly focuses on the linguistic means used by the interlocutor and represents a direct intervention in the student's analytical processes.

The heightened emphasis on using subtext and providing corrective feedback in language classrooms stems from a significant shift in the learning context compared to native language acquisition. This transformation, as described by Čok (2023), introduces 'analytical functions,' which entail the mediation of thought via language and deliberate meta-linguistic reflection. Given that these changes constitute objective realities, it is counterproductive to disregard them, especially considering their potential to enhance the learning process.

Context is the next most frequently used by students they say. In the field of foreign language contextualization didactics, two approaches can be distinguished that are radically opposed to each other in terms of the approach to the articulation between metalinguistic work and communicative practice: the so-called traditional approach and the problem-based learning approach. In the following, we propose to consider each of these approaches within the cognitive framework.

It is logical to choose to adapt to different language situations, as this approach is based on the didactic logic of transferring and implementing

knowledge in a sequence of three phases. The initial phase focuses on the grammatical structure, which is presented explicitly or implicitly to maximize understanding of the underlying rule. The learning phase, based on supervised exercises with predefined meanings, is then used to automate this rule, thus transforming declarative knowledge into procedural knowledge. In the final phase of production, the degree of control and support is reduced, and the learner is forced to express himself more spontaneously in the target language, basing his utterances on the meanings he has conceptualised for himself. From a cognitive linguistic perspective, the learning problem underlying the traditional approach has two aspects. How can linguistic data organised according to descriptive grammar that the learner has not yet mastered be used by the learner to construct internal grammar? And how can these internal rules be gradually adapted to language purposes that are increasingly communicative and authentic?

The pedagogical rule, as it appears in most language teaching textbooks, has a dual status. It is, first of all, a descriptive rule that is part of the system developed by grammarians to account for the functioning of language. At the same time, it is a practical rule designed to help the learner develop know-how. The ambivalence of the pedagogical rule reflects the simplistic nature of the relationship between declarative and procedural knowledge, as usually assumed in traditional education.

However, if we turn to the psycholinguistic the model of Bobur (2023), it is the use of mnemonics rather than grammatical rules that is considered to be the common mediator of analytical cognitive processes in language learning activities. Here, formulation processes are lexicon-driven, meaning that grammatical encoding and phonological encoding are mediated by lexical entries. The verbal message activates lexical items. The syntactic, morphological, and phonological properties of the activated lexical item, in turn, trigger the grammatical, morphological, and phonological encoding procedures that underlie the generation of the utterance. The hypothesis that the lexicon is

an important mediator between conceptualisation and grammatical and phonological encoding will be referred to as the lexical hypothesis.

If mental vocabulary plays a major role in the generation of discourse and thus in language learning, whether in L1 or L2, what about grammatical rules?

In this conception, grammar rules can only be represented as a general formulation of the properties of certain classes of lexical items, as a link that unites the syntactic and morphological properties of lexical items in a network and constitutes them into different classes. For a student, a grammatical rule is the cognitive result of generalising specific rules that are specific to a particular subject.

As for the grammar exercises that take place in the second stage of the traditional cognitive approach, they are quite systematic, very focused, and rather closed (narrow in scope), with nothing simulating natural verbal exchanges. The exercise is usually accompanied by instructions that define the task to be performed, the problem to be solved and the means to be used. Therefore, we believe that the role assigned to them by didactics varies between two positions, each of which is associated with a different learning theory (Watrin et al., 2022). For the proponents of explicit rationalised learning, exercises serve primarily to reinforce, through repetition, the learning of description paradigms, while for the proponents of learning inspired by natural learning, exercises are a substitute for explicit learning. In this case, too, the repetitive practice aims to induce the learner to accept a classification that belongs to a model that he or she can neither justify nor deny since it is inscribed in the very nature of the language, of which he or she still has a poor command.

According to the first position of the survey results, grammar exercises serve to fix and automate a rule, i.e., to facilitate its retention and long-term storage in memory so that the relevant element is later made available according to the student's needs for understanding and expression. However, it is doubtful that the procedural rule that the student

constructs to fulfil the task of the exercise really corresponds to the pedagogical rule presented in advance.

It appears that the analysis of the students' oral cognitive techniques, as well as the comments of other subjects who processed the results of the experiment, show that in this case, the rule planned by the exercise developer is not the one used by the students.

The second position (context), which can be interpreted from the point of view of behaviourism, is to consider that exercises contribute to the development of subprograms of communicative activity. However, the procedural norms that are implemented during foreign language learning are often fundamentally different from those that underlie communication. The student does not work on conceptualizing a message but rather fits into a statement that is already largely formulated at the beginning. The constructed message lacks a specific audience that would guide her communicative action. There is, in fact, a kind of reversal of the relations of normal communication, in which linguistic means take the place of communicative goals. The main focus is on manipulating syntactic, morphological, and phonological structures without activating them through the cognitive work of lexical access. The skills involved are determined by the nature of the exercise, and therefore the only possible transfer will be the basic skills of other exercises of the same type.

Thus, grammar exercises prove most effective to develop procedural recognition rules that can be used to build declarative knowledge in comprehension. On the other hand, the construction and consolidation of procedural knowledge in production through practice can only take place in the third phase of the traditional approach, i.e., in the context of authentic communication.

4. Discussion

Out of all the cognitive models included in the general framework of the presented work, the most frequent were those that seek to recreate natural conditions of communication and sharpen students' cognitive processes and analytical activities. The

principle behind selecting the six most frequently cited cognitive techniques for improved foreign language learning involves proposing communicative tasks as a core component. These tasks are sequenced to progressively increase in complexity and authenticity, aligning with real-world communication scenarios (Morgan-Short and Ullman, 2022). According to Wu (2023), a communication task has the following characteristics: meaning takes precedence over form, there is a communication problem to be solved, there is a connection with real-life activities, task completion is a priority, and the task is evaluated in terms of results.

In a related study by Bobur (2023), the implementation of a communicative task usually leads to the division of students into pairs or small groups and the creation of an information gap between different speakers (information gap), with students seeking to bridge this gap through communicative activities in the L2.

According to Tan (2023), the use of cognitive techniques as analytical tools for learning is largely inspired by the idea that authentic communication is sufficient to trigger the dynamics of learning. According to interactionist theories, asymmetric interactions such as ex-linguistic communication lead to the negotiation of feelings characterised by requests for clarification, checks of understanding, auto-, and hetero-formations, which generates more or less implicit learning processes in the weak speaker, forcing him to focus on linguistic forms to ensure his participation in communication (Zhou, Xi and Lochtman, 2023).

However, the interactionist position seems to be much less valid in the case of communicative tasks in the EFL context, where learners share a common mother language and have approximately the same level of proficiency in the target language. Littlemore (2023) shows that in these settings, problems of mutual understanding are rare and therefore communication tasks generate few sensory feelings. In addition, students often tend to favour communication at all costs, emphasising fluidity of production at the expense of linguistic correctness

and discourse complexity. The consequence, translated within the cognitive linguistic model, is that the procedural rules they use rely too much on the L1 and on memorised or situationally constructed lexical structures, to the detriment of the generation and evolution of morpho-syntactic rules in the L2, causing early proceduralisation, and hence fossilisation, of certain idiosyncratic structures (Shah et al., 2023). In addition, as communication tasks are usually performed between students without direct teacher intervention, the interaction often lacks a linguistic model that can provide the textual and grammatical input and feedback necessary to adjust speakers' production to the conventional norms of the target language (Uslu, 2020).

Therefore, it is not enough to communicate in class to learn a foreign language. Although communicative tasks create favourable conditions, it is the language behaviour and cognitive analytical techniques that students use when performing them that are the most important factor in their learning. According to Kohnert, Bates and Hernandez (1999), the most fruitful interactions in terms of the acquisition are characterised by a high level of meta-language activity (auto- and hetero- reformulation, L1 use, etc.), aimed not at mutual understanding but at working together, often collaboratively, to find a common form of the target language (Kormos, 2023).

Nevertheless, the teacher plays a key role in a task-based learning system. Even if he/she stays away from communicative activities, he/she should set up other activities during the preparatory phase to obtain the necessary input to feed the students' cognitive processes and provide feedback during the assessment phase to enable them to take a meta-linguistic step in their language learning.

While the study emphasizes the importance of communicative tasks in facilitating language learning, it acknowledges several limitations. One significant limitation arises from the assumption that authentic communication alone is sufficient to trigger effective learning dynamics. However, in English as a Foreign Language (EFL) contexts

where learners share a common mother tongue and similar proficiency levels in the target language, authentic communication may not always lead to the desired outcomes. In such settings, problems of mutual understanding are rare, and learners often prioritize fluency over linguistic correctness and complexity (Mereniuk and Parshyn, 2024). Consequently, they may rely heavily on their native language and memorized lexical structures, which can hinder the development of morpho-syntactic rules in the target language and lead to the early proceduralization and fossilization of certain linguistic structures. Communicative tasks are typically performed between students without direct teacher intervention, resulting in a lack of linguistic modeling and feedback necessary for adjusting language production to the norms of the target language. This absence of teacher guidance may limit the effectiveness of communicative tasks in promoting language acquisition.

Therefore, while communicative tasks create favorable conditions for language learning, it is essential to consider the language behavior and cognitive analytical techniques employed by students during these tasks. Additionally, the role of the teacher in task-based learning systems remains crucial. Even if teachers refrain from direct involvement in communicative activities, they should provide necessary input during the preparatory phase and offer feedback during the assessment phase to support students' cognitive processes and facilitate their language learning journey.

5. Conclusion

Thus, a key aspect highlighted by the cognitive linguistics theory, within the analytical framework established in this study, concerns the focus on the cognitive activities undertaken by learners throughout the language comprehension process. Therefore, the process of learning a foreign language is seen not just as a gradual integration of the target language system into the prefabricated form, but as a direct result of the work. Learning in natural situations, as we have described it, finds its

dynamics in two parallel activities. On the one hand, it is based on top-down knowledge construction activities through problem-solving, controlled and guided by communicative goals, and then on the gradual automation of this knowledge to optimise its acquisition and real-time implementation. On the other hand, learning also involves analytical work, which includes bottom-up processing, the origins of the language data that feeds the work of constructing and modifying the knowledge found in textual input and feedback.

This theory can make an important contribution to the field of cognitive linguistics and foreign language didactics. First of all, we are talking about reorienting the issue of guided learning to the adequacy between the didactic goals of the teacher and the cognitive activity of the student, as well as to the balance between the student's communicative practice and his/her work on activating analytical processes and choosing cognitive techniques for learning the target language.

Based on the findings presented, here are recommendations for future research. Researchers should investigate the effectiveness of cognitive linguistic theory in uncovering cognitive processes in language comprehension across diverse learner populations and language learning contexts. There is also a need to explore how different instructional approaches can optimize the balance between top-down knowledge construction activities and bottom-up processing in language learning. Longitudinal studies should be conducted to assess the long-term impact of cognitive linguistic approaches on language acquisition and proficiency development. Students should also be actively engaged in communicative tasks while also focusing on analytical processes during language learning activities. Educators should design instructional activities that integrate both communicative practice and analytical work to foster holistic language development. Policymakers should support teacher professional development programs that emphasize the integration of cognitive linguistic theory into language teaching practices.

By implementing these recommendations,

stakeholders can contribute to enhancing language learning outcomes and promoting a deeper understanding of cognitive processes involved in language comprehension and acquisition.

Author Contributions

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Conflict of Interest

The authors declare no conflict of interest.

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