

Міністерство освіти і науки України  
Київський національний лінгвістичний університет  
Кафедра германської і фіно-угорської філології

Курсова робота

**Службові слова у мові та мовленні: теоретичні та практичні  
аспекти**

Студентки групи Мла 06-19  
факультету германської філології і перекладу  
денної форми навчання  
спеціальності 035 філологія  
спеціалізація Германські мови та літератури (переклад  
включно) перша – англійська  
Макарової Тетяни Сергіївни

Науковий керівник:  
кандидат філологічних наук,  
професор  
Волкова Лідія Михайлівна

Національна шкала \_\_\_\_\_  
Кількість балів \_\_\_\_\_  
Оцінка ЄКТС \_\_\_\_\_

Київ 2023

Ministry of Education and Science of Ukraine

Kyiv National Linguistic University

Chair of Germanic and Finno-Ugrian Philology

**Term Paper**

**Function words in language and speech: theoretical and  
practical aspects**

**Tanya Makarova**

Group MLa 06-19

Germanic Philology and Translation Department

Research Adviser

Prof. L.M.Volkova

PhD (Linguistics)

Kyiv 2023

**TABLE OF CONTENTS**

INTRODUCTION.....	2
1. Theoretical Aspects of Function Words.....	4
1.1 The grammatical function of function words .....	4
1.2. Usage patterns of function words .....	8
1.3. Cognitive processing of function words .....	11
1.4. Historical evolution of function words .....	14
2. Practical Aspects of Function Words.....	16
2.1. Implications for communication .....	16
2.2. Implications for language learning and teaching .....	18
2.3. Implications for natural language processing .....	20
CONCLUSIONS.....	22
PE3IOME .....	23
LIST OF REFERENCE MATERIALS .....	24

## INTRODUCTION

Function words are small everyday words used to connect and convey meaning in language. Often overlooked in the study of language and communication, it plays an important role in conveying information and understanding what we hear and read.

Learning function words is important for several reasons:

Firstly, function words are a fundamental part of the language and help define the structure and construction of sentences. By understanding the role of function words, we can better understand the rules and conventions of language and how they are used to convey meaning.

Secondly, function words play an important role in cognitive processing because they are processed quickly and automatically in the brain. By examining how function words are processed, we can gain insight into the cognitive mechanisms underlying language comprehension.

Thirdly, function words have important practical implications for language use and understanding. They can affect the tone, style, and clarity of communication, and have a profound impact on how messages are received and interpreted. Therefore, understanding how function words are used in different contexts can help you communicate more effectively. Overall, the study of function words is important for our understanding of language and communication and has theoretical and practical implications in many fields, including linguistics, psychology, pedagogy, and natural language processing. This paper aims to explore the theoretical and practical aspects of function words in language and speech.

The research objectives of this paper are the following:

1. To provide a comprehensive understanding of the role of function words in language use and comprehension.

2. To examine the grammatical function, usage patterns, cognitive processing, historical evolution, and practical implications of function words.

3. To investigate practical applications of our understanding of function words, including optimizing their use in communication, language learning and teaching, and natural language processing.

**The subject** of this paper is the study of function words, including their grammatical function, usage patterns, cognitive processing, historical evolution, and practical implications for communication, language learning and teaching, and natural language processing.

**The object** of this paper is to provide a comprehensive overview of the theoretical and practical aspects of function words, highlighting the importance of these words in language use and understanding.

The theoretical significance of this paper is that it contributes to our understanding of the nature of language and communication by exploring the theoretical aspects of function words, such as their grammatical function, usage patterns, and cognitive processing, as well as their historical evolution and cross-linguistic usage. This has the potential to inform and inspire further research in the field of language and communication and deepen our understanding of how we use and understand language.

## **1. Theoretical Aspects of Function Words**

### **1.1 The grammatical function of function words**

Function words are a class of words that are used to express syntactic relationships within a sentence. They are essential in building the structure of language and speech. Function words include a wide range of grammatical words, such as determiners, prepositions, conjunctions, and auxiliaries. These words are usually small and have little meaning on their own, but they play an important role in sentence construction by providing information about tense, mood, voice, case, and agreement. Without function words, it becomes difficult to interpret a sentence and convey a clear meaning.

In "Language Universals and Linguistic Typology: Syntax and Morphology," Bernard Comrie discusses the role of function words in linguistic typology. Comrie argues that function words are crucial in understanding the syntactic and morphological structure of languages and the universals that underlie them.

Comrie notes that function words often reflect universal grammatical categories, such as tense, aspect, and case. For example, many languages use auxiliary verbs to indicate tense, while prepositions are often used to indicate case. Comrie also notes that function words can reflect language-specific categories, such as evidentiality, which indicates the source of information in a sentence.

Function words also play an important role in the typological classification of languages. Comrie suggests that function words can reveal the degree of complexity in a language's grammatical system. For example, a language with a large number of inflectional morphemes may have a relatively small number of function words, while a language with a simpler inflectional system may have a larger number of function words to convey grammatical meaning.

Comrie notes that some languages, such as Chinese and Vietnamese, rely heavily on function words to express grammatical relations, while others, such as English and Russian, make more use of inflectional morphology (Bernard Comrie, 1981).

In their book "The Cambridge Handbook of Linguistics," Keith Allan and Kasia M. Jaszczolt explain that function words serve to link different elements of a sentence, indicating how these elements are related to each other. They also note that function words are often unstressed, and that their primary function is to help shape the structure of sentences (Keith Allan and Kasia M. Jaszczolt, 2011).

According to "A Student's Introduction to English Grammar" by Rodney Huddleston and Geoffrey K. Pullum, function words are essential in conveying grammatical meaning in language. They argue that while content words, such as nouns and verbs, provide lexical meaning, it is the function words that give structure to sentences and convey information about grammatical relationships.

One important function of function words is their ability to mark the syntactic relationship between words in a sentence. For example, prepositions mark the relationship between a noun and another element in a sentence, such as "on the table" or "with a smile." Similarly, conjunctions mark the relationship between clauses, such as "although" or "because" (Rodney Huddleston and Geoffrey K. Pullum, 2005).

According to Chomsky's theory of transformational-generative grammar, function words are fundamental in sentence construction. Chomsky argues that language is not merely a set of learned responses to stimuli but is instead an innate ability that humans possess. In this view, function words are seen as an integral part of universal grammar, which is a set of innate principles that enable humans to learn the language. Chomsky's theory emphasizes the significance of function words in building syntactic structures, highlighting their importance in constructing grammatical sentences (Chomsky N., 1957).

Hopper and Thompson's study on transitivity, focuses on the relationship between the syntax of a sentence and its discourse function. They argue that function words are critical in expressing the transitivity of a sentence. Transitivity is a grammatical term that describes the relationship between the verb and its

arguments. In their study, Hopper and Thompson show how function words can convey the transitivity of a sentence by marking the roles of the arguments (Hopper and Thompson, 1980).

For instance, in a sentence like "John gave Mary a book," the function words "gave" and "a" indicate that "John" is the subject, "Mary" is the indirect object, and "book" is the direct object. The function word "a" serves as a determiner, marking the object as indefinite. The use of these function words clarifies the meaning of the sentence and makes it easier to interpret.

1. The cat chased the mouse. The function words "chased" and "the" indicate that "cat" is the subject and "mouse" is the direct object.
2. She wrote a letter to her friend. The function words "wrote," "a," and "to" indicate that "she" is the subject, "letter" is the direct object, and "friend" is the indirect object.
3. They gave us some advice. The function words "gave," "us," and "some" indicate that "they" is the subject, "advice" is the direct object, and "us" is the indirect object.
4. He is eating a sandwich. The function words "is," "eating," and "a" indicate that "he" is the subject, "sandwich" is the direct object, and the verb is in the present continuous tense.
5. We will be studying for the exam. The function words "will," "be," and "for" indicate that "we" is the subject, the verb is in the future continuous tense, and the preposition "for" marks the purpose of the action.

Hopper and Thompson's study also highlights the role of function words in marking cases in languages that use inflectional morphology. In such languages, function words are significant in conveying information about the grammatical roles of words in a sentence. For example, in Russian, the function word "на" (na) indicates the direction of motion and takes different forms depending on the case of the noun it modifies. This shows how function words are essential in conveying the relationships between words in a sentence (Hopper and Thompson, 1980).



Sag, Wasow, and Bender's book on syntactic theory expands on the idea that function words play a crucial role in language by highlighting how they function as heads of phrases and complements of other words in a sentence. In some cases, function words can be considered the most important element of a phrase or clause, such as with auxiliary verbs that mark tense, as in the sentence "He has gone to the store."( Sag, I. A., Wasow, T., & Bender, E. M., 2003)

Function words also mark various syntactic categories, such as tense, aspect, and modality. For instance, the function word "will" marks future tense in the sentence "I will eat dinner," while the function word "can" marks ability in the sentence "I can swim." These function words provide essential information about the temporal, modal, and aspectual properties of the sentence, helping the listener or reader to interpret the meaning accurately.

Furthermore, function words play an important role in the organization and structure of language. They often form part of complex syntactic structures that involve multiple clauses and phrases. For example, the sentence "Although it was raining, he still went for a walk" contains a subordinate clause marked by the function word "although," which modifies the main clause. By using function words to create these complex structures, language users can convey more nuanced and sophisticated meanings.

1. "After he finishes his work, he will go to the gym" - In this sentence, the function word "after" marks the beginning of a subordinate clause that expresses a temporal relationship with the main clause.
2. "She gave him a book so that he could read it" - The function word "so that" introduces a subordinate clause that expresses purpose or intention.
3. "In spite of the fact that he studied hard, he failed the test" - The function words "in spite of the fact that" introduce a subordinate clause that expresses contrast or concession.

4. "She will go to the party if she finishes her work" - The function word "if" introduces a subordinate clause that expresses a conditional relationship with the main clause.

## 1.2. Usage patterns of function words

The usage patterns of function words in languages are diverse and complex, reflecting the grammatical structure of each language. Function words can be used to indicate tense, aspect, mood, voice, case, number, person, and gender, among other grammatical categories.

An important usage pattern of function words is to indicate relationships between words in a sentence. For example, prepositions are used to indicate the relationship between nouns or pronouns and other elements, such as time, place, or manner. Pronouns, on the other hand, are used to refer to previously mentioned nouns, avoiding repetition and making sentences more concise.

- Prepositions: "The book is on the table." In this sentence, the preposition "on" marks the relationship between the noun "book" and the noun "table," indicating that the book is physically located on the table.
- Pronouns: "John saw Sarah at the party. He was glad to see her." In this example, the pronoun "he" refers back to John, avoiding repetition and making the sentence more concise. The pronoun "her" refers back to Sarah, indicating that John was glad to see her specifically.
- Conjunctions: "I like coffee and tea." In this sentence, the conjunction "and" links two nouns together, indicating that the speaker likes both coffee and tea.
- Articles: "I ate an apple." In this sentence, the indefinite article "an" marks the relationship between the verb "ate" and the noun "apple," indicating that the speaker ate one apple, not multiple.

Function words are also used to create more complex syntactic structures. Conjunctions are used, for example, to connect clauses, phrases, or words. They can be coordinating, subordinating, or correlative, depending on the relationship they express. Auxiliary verbs such as “be”, “do”, and “have” are used to form compound tenses or to indicate negation or emphasis.

- Conjunctions: "I went to the store, but I forgot to buy milk." In this sentence, the coordinating conjunction "but" connects two independent clauses, indicating a contrast between the speaker's actions.
- Auxiliary verbs: "I have been studying for three hours." In this sentence, the auxiliary verb "have" is used to form the present perfect tense, indicating that the speaker began studying in the past and is still studying in the present.
- Subordinating conjunctions: "After I finish this paper, I will take a break." In this sentence, the subordinating conjunction "after" introduces a dependent clause that indicates a time relationship between the two clauses.
- Correlative conjunctions: "Either you come with me, or I'll go alone." In this sentence, the correlative conjunctions "either" and "or" connect two options, indicating that the speaker is giving the listener a choice.

Another important usage pattern of function words is their frequency of occurrence. Some function words occur much more frequently than others, such as definite and indefinite articles, which are used in almost every sentence.

1. The dog barked at the mailman.
2. A car drove by the house.

In these examples, the function words "the" and "a" respectively indicate the definiteness and indefiniteness of the noun they modify. These words are one of the most commonly used function words in English and their frequent use in the language allows speakers to quickly predict and process the meaning of a sentence.

In addition to the aforementioned usage patterns, function words also play a crucial role in expressing the pragmatics and discourse features of the language. For example, modal auxiliary verbs such as "can," "should," or "might," express the attitude or intention of the speaker and contribute to the overall meaning of the sentence. Similarly, discourse particles, such as "well," "now," or "oh," convey the speaker's attitude, signal a change of topic, or indicate hesitation, among other functions.

- Modal auxiliary verbs: "I can help you with that." In this sentence, the modal auxiliary verb "can" expresses the speaker's ability or willingness to help the listener with something.
- Discourse particles: "Well, I don't know about that." In this sentence, the discourse particle "well" is used to signal the speaker's hesitation or uncertainty about what they are going to say next.
- Modal auxiliary verbs: "You should probably get some rest." In this sentence, the modal auxiliary verb "should" expresses the speaker's suggestion or advice for the listener to get some rest.
- Discourse particles: "Now, let's move on to the next topic." In this sentence, the discourse particle "now" is used to signal a shift in the topic or to indicate that the speaker is ready to move on to the next topic of discussion.

Studying the usage patterns of function words can also provide insights into the cognitive and neural mechanisms underlying language processing. For example, research has shown that function words are processed faster and more efficiently than content words, suggesting their importance in predicting the syntactic and semantic structure of sentences.

### **1.3. Cognitive processing of function words**

Research on the cognitive processing of function words indicates that function words play an important role in facilitating language comprehension and production. For example, research has shown that function words are processed faster and more efficiently than content words. This suggests that function words are important in predicting the syntactic and semantic structure of sentences

One theory that explains this phenomenon is the "predictive processing" theory, which suggests that the brain uses prior knowledge and context to generate predictions about upcoming linguistic input. Function words are especially useful in this regard, as they provide important information about the syntactic structure of a sentence, such as word order, tense, and aspect, which can help listeners and speakers generate more accurate predictions about the upcoming words in a sentence.

Kamide, Altmann, and Haywood's study investigated the cognitive processing of function words in incremental sentence processing, using anticipatory eye movements as a measure. The study found that function words are processed rapidly and efficiently, suggesting that they play a crucial role in predictive language processing.

The study used a visual-world eye-tracking paradigm, in which participants' eye movements were recorded as they listened to sentences and looked at pictures on a computer screen. The sentences contained either predictable or unpredictable function words, and the pictures were either congruent or incongruent with the sentence.

The results showed that participants made anticipatory eye movements to the congruent picture significantly earlier when the function word was predictable than when it was unpredictable. This suggests that participants were able to use the function word to predict the upcoming content and plan their eye movements accordingly.

The study also found that the predictability effect of function words was modulated by the semantic and syntactic context. Specifically, the effect was stronger when the function word was part of a highly predictive phrase or when the sentence had a strong thematic structure.

Overall, the findings of Kamide, Altmann, and Haywood's study provide evidence for the rapid and efficient processing of function words in predictive language processing. This suggests that function words play a critical role in helping listeners anticipate and understand the meaning of upcoming linguistic content.

Another way in which function words facilitate language processing is by reducing cognitive load. Because function words are used frequently in language and are relatively easy to process, they can help reduce the cognitive load associated with processing more complex lexical items or syntactic structures. This, in turn, can help listeners and speakers allocate more cognitive resources to other aspects of language processing, such as semantic interpretation or discourse-level comprehension.

The study by Kamide, Altmann, and Haywood investigated the time-course of prediction in incremental sentence processing using anticipatory eye movements as a measure. The study found that function words are processed rapidly and efficiently, which suggests that they play an essential role in predictive language processing. This processing facilitates the generation of predictions about upcoming linguistic input, allowing listeners and speakers to better anticipate and understand the meaning of sentences (Kamide, Altmann, and Haywood, 2003).

Another study by Kutas and Federmeier investigated the neural mechanisms underlying the processing of function words. They found that the N400 component of the event-related brain potential (ERP) is sensitive to semantic violations, including those involving function words. The N400 is an ERP component that is typically observed around 400 milliseconds after the presentation of a word and is

thought to reflect the ease of integrating that word into the ongoing discourse. These findings suggest that the brain processes function words differently from other types of words and that they play an important role in semantic processing.

Function words also play a critical role in reducing cognitive load during language processing. Because function words are used frequently in language and are relatively easy to process, they can help reduce the cognitive load associated with processing more complex lexical items or syntactic structures. This, in turn, allows listeners and speakers to allocate more cognitive resources to other aspects of language processing, such as semantic interpretation or discourse-level comprehension (Kutas and Federmeier, 2011).

Overall, the cognitive processing of function words is a rich area of research that has important implications for our understanding of how the brain processes and generates language.

#### **1.4. Historical evolution of function words**

The historical evolution of function words can provide insights into the development and changes of languages over time. Function words have been a part of human language since its origins, as they are essential for conveying grammatical relationships and providing contextual information. However, the specific function words used in a language can change over time due to various factors such as contact with other languages, social changes, and technological advances.

Bybee, Perkins, and Pagliuca's book on the evolution of grammar highlights the evolution of tense, aspect, and modality in various languages around the world, providing insight into the historical evolution of function words.

The authors note that in many languages, tense and aspect markers have evolved from earlier demonstratives or locative adverbs. For example, in Mandarin Chinese, the particle "le" has developed from a locative adverb meaning "at" or "in," to a perfective aspect marker indicating the completion of an action. Similarly, in English, the auxiliary verb "will" has evolved from an earlier verb meaning "wish" or "desire," to a future tense marker.

The evolution of modality markers is also of interest to scholars studying the historical evolution of function words. The authors note that in many languages, modality markers have evolved from earlier verbs meaning "want," "can," or "must." For example, in Spanish, the modal verb "deber" has developed from an earlier verb meaning "owe," to a marker of obligation or necessity (Bybee, J., Perkins, R., & Pagliuca, W. 1994).

The field of cognitive linguistics provides another perspective on the historical evolution of function words. According to Croft and Cruse's book on cognitive linguistics, function words are essential for conveying grammatical meaning and serve as the building blocks of grammatical structure. The authors note that function words can also provide important cues to the speaker's



perspective or attitude towards the information being conveyed. For example, the choice of pronoun or tense can signal the speaker's viewpoint or stance towards a particular event or situation (Croft and Cruse, 2004).

Hopper and Traugott's book on grammaticalization also provides insights into the historical evolution of function words. The authors define grammaticalization as the process by which lexical items or constructions evolve into grammatical markers over time. Function words are often the result of grammaticalization, as they evolve from lexical items or constructions that have become more abstract and grammaticalized.

The authors note that the process of grammaticalization often involves a shift in meaning from concrete referential meanings to more abstract grammatical functions. For example, the English auxiliary verb "be" has evolved from a verb meaning "to exist" or "to live," to a copula indicating the subject complement of a sentence. Similarly, the French preposition "à" has evolved from a preposition meaning "to" or "toward," to a marker of indirect object.

Hopper and Traugott also highlight the importance of context in the process of grammaticalization. Function words often develop in specific linguistic or social contexts and then spread more widely as the language changes over time. For example, the English modal verb "must" originally meant "to be obliged to," but over time it has evolved to convey a variety of modal meanings such as obligation, necessity, or prediction (Hopper and Traugott, 2003).

The historical evolution of function words can also be seen in the comparison of related languages. For example, the use of articles differs between English and Romance languages such as French and Spanish, which do not have articles. This suggests that the use of function words can vary widely across languages, even when they share a common etymology.

## **2. Practical Aspects of Function Words**

### **2.1. Implications for communication**

The practical aspects of function words are essential for effective communication. Function words not only provide grammatical structure but also convey important practical and discourse features. Understanding the proper usage of function words is important to accurately convey meaning and intent in various communication contexts.

The implications for communication of function words are manifold, as these words are not only crucial for conveying grammatical structure, but also for conveying social and epistemic information. Heritage's (2012) study on epistemics in action highlights the importance of function words in the formation and negotiation of knowledge in social interaction.

Heritage notes that function words such as "know," "think," or "believe" are epistemic markers that indicate the speaker's degree of certainty or doubt about a given proposition. These markers can serve to align or disalign with the interlocutor's epistemic stance, thereby shaping the trajectory of the conversation. For example, the use of the modal verb "might" rather than "must" can signal a speaker's uncertainty and invite the interlocutor to offer alternative hypotheses or information.

Function words can also be used strategically to convey or withhold information and thus influence the power dynamics of a conversation. For instance, the use of hedging devices such as "sort of" or "kind of" can signal tentativeness or lack of commitment, while their absence can signal confidence and authority. Similarly, the use of discourse markers such as "well" or "so" can signal a speaker's intention to move on to a new topic or to summarize the main points of a discussion, thereby exerting control over the flow of conversation (Heritage, 2012).

Sacks, Schegloff, and Jefferson (1974) emphasize in their seminal study on the organization of turn-taking in conversation that function words play a crucial

role in regulating the rhythm and pace of communication. They note that function words such as "uh-huh," "yeah," and "okay" serve as "transition relevance places," indicating that a speaker is ready to relinquish the floor and allow the next speaker to take a turn. Similarly, certain function words such as "well" or "you see" can signal a speaker's intention to launch into a longer turn and serve as a cue for other participants to withhold their own contributions for a moment.

1. "You see, the problem with that approach is that it's not very efficient."
2. "Well, I was thinking of going to the beach this weekend, but it might rain."

Furthermore, the choice of function words can convey important social and affective information, such as politeness, deference, or assertiveness. For instance, the use of modal verbs such as "could," "would," or "may" can soften a request or suggestion, while their absence may come across as too direct or even rude.

1. Could you please pass me the salt? (polite request)
2. Can you pass me the salt? (less polite request)
3. Pass me the salt. (direct command)
4. Would you mind turning down the music? (polite request)
5. Turn down the music, please. (direct request)
6. Turn off the music! (strong command)
7. May I suggest an alternative approach? (polite suggestion)
8. You should try a different approach. (more forceful suggestion)
9. Do it my way or else! (threatening command)

Similarly, the use of discourse particles such as "sorry" or "excuse me" can signal politeness and acknowledgment of one's interlocutor, while their omission may be interpreted as impolite or dismissive (Sacks, Schegloff, and Jefferson, 1974).

Overall, the appropriate use of function words is critical for effective communication and successful social interaction. Understanding the role of

function words in managing turn-taking, conveying social information, and shaping discourse can help speakers become more proficient communicators and avoid misunderstandings.

## **2.2. Implications for language learning and teaching**

Function words play an important role in second language acquisition as they are often the most common and contextual elements in sentences. Therefore, understanding the usage patterns and practical functions of functional words is important for language learners and teachers.

Language learners can improve their ability to comprehend and produce natural sentences by familiarizing themselves with the usage patterns of function words. Research shows that teaching function words in context rather than as isolated vocabulary improves language learning outcomes.

Additionally, understanding the syntactic and pragmatic roles of function words can help language learners to use them appropriately in different communicative contexts. For example, learners who understand the use of modal auxiliary verbs can convey their attitudes and intentions more effectively, while those who are familiar with the role of discourse particles can signal topic shifts and convey their stance more clearly.

Moreover, explicit instruction and practice with function words can help language learners to overcome common errors, such as omitting articles or confusing prepositions. By developing their awareness of the role of function words in sentence structure and discourse, learners can become more accurate and proficient in their use of the target language.

In the book "Understanding Second Language Acquisition," Ellis notes that function words are among the most difficult elements of language to acquire, and that their correct usage requires a deep understanding of the syntax, pragmatics, and discourse of the language.

Ellis suggests that explicit instruction and practice with function words can help learners overcome common errors, such as omitting articles or misusing prepositions. He also recommends that teachers provide learners with ample opportunities to use function words in communicative situations, such as role plays or conversations, in order to help them develop their ability to use these words in context.

Furthermore, Ellis notes that the teaching and learning of function words should be integrated into a larger framework of language instruction, which includes attention to vocabulary, grammar, and discourse. By focusing on the practical aspects of function words, teachers can help learners understand the structural and pragmatic features of the language, and use them more effectively in communication.

In addition, Ellis highlights the importance of feedback and error correction in the language learning process. He suggests that teachers should provide learners with corrective feedback on their use of function words, and encourage them to self-correct their errors. By providing learners with explicit feedback on their use of function words, teachers can help them develop a more accurate and fluent command of the language (Ellis, R., 2015).

In "Techniques and Principles in language teaching," Larsen-Freeman emphasizes the importance of teaching function words in language learning, as they are key to understanding the syntax, pragmatics, and discourse of a language. Function words can be explicitly taught through activities such as sentence completion exercises, cloze tests, and discourse analysis. In addition, Larsen-Freeman recommends that teachers model the use of function words in context, and provide learners with ample opportunities to practice using them in communicative situations. By focusing on function words, learners can better understand the underlying structures of the language and communicate more effectively in real-life situations (Larsen-Freeman D., 2018).

Moreover, teaching function words can help learners improve their listening skills, as function words often carry important cues for understanding spoken language. By training learners to recognize and interpret function words, teachers can help them better comprehend the nuances of spoken language, such as sarcasm, humor, and emphasis.

### **2.3. Implications for natural language processing**

Natural Language Processing (NLP) is the branch of computer science that deals with developing algorithms and tools for the automatic processing of natural language texts. Function words play an important role in NLP because they are often used to convey grammatical context and convey meaning at the sentence level.

In "Foundations of Statistical Natural Language Processing," Manning and Schütze note that function words can be used to create a grammatical parse of a sentence, which is the process of identifying the syntactic structure of a sentence. For example, function words such as "of," "to," and "for" are used to indicate prepositional phrases, while auxiliary verbs like "will" and "can" are used to mark the tense and mood of a sentence.

Manning and Schütze also highlight the importance of function words in machine translation. Translating function words accurately is crucial for producing a fluent and natural translation, as they often convey the underlying structure of a sentence. In addition, function words can be used to disambiguate the meaning of a sentence, which is important for accurate translation (Manning and Schütze, 1999).

Function words can also be used to disambiguate the meaning of a sentence. For example, the function word "not" can be used to negate a sentence and change its meaning. In addition, function words can be used to signal the relationships between words in a sentence, such as subject-verb or object-preposition relationships.

These aspects of function words have important implications for natural language processing. As computers become increasingly sophisticated in analyzing and generating language, understanding the role of function words becomes crucial for accurately interpreting and producing natural language.

In corpus linguistics, the study of large collections of text, function words have been used to identify patterns in language use and to develop computational models for natural language processing. For example, the frequency of function words in a corpus can be used to analyze the style or genre of a text. In addition, function words can be used as features in machine learning algorithms for tasks such as part-of-speech tagging and sentiment analysis.

However, the complex and context-dependent nature of function words presents challenges for natural language processing. Ambiguities in the use of function words, such as in cases of sarcasm or irony, can be difficult for computers to detect without a deep understanding of the context and social cues. In addition, the use of function words can vary greatly across different languages and dialects, requiring specialized models for accurate analysis and generation.

Overall, a deeper understanding of the role of function words in the natural language can lead to more accurate and effective natural language processing systems, influencing various applications such as virtual assistants and machine translation.

## CONCLUSIONS

In summary, function words play an important role in language and speech because they act as the glue that holds words and phrases together, allowing the creation of complex and nuanced meanings. The study of function words has theoretical and practical implications ranging from analysis of language structure to language learning and natural language processing.

Function words play an important role in language and speech, both theoretically and practically. A theoretical perspective emphasizes the structure of discourse, the expression of syntactic relationships, and its role in negotiating conversational order. Various frameworks have been developed to analyze their functions, such as systemic functional linguistics and conversation analysis. These theories provide a basis for understanding the complexity and context dependence of function words.

In practical terms, the use of function words has important implications for language teaching and natural language processing. Teaching function words in context can lead to better language learning outcomes by improving learners' ability to comprehend and produce natural-sounding sentences. However, the complexity and context-dependency of function words pose challenges for natural language processing, such as detecting sarcasm and irony, and require specialized models for accurate analysis and generation.

Moreover, the historical evolution of function words highlights their variation across different languages and dialects, even among those with a common origin. This highlights the importance of studying function words as they contribute to our understanding of language structure, use, and evolution. The study of function words is an important area of research for linguistics, language teaching, and natural language processing, with practical applications in language education and technological advancements in language processing.



## РЕЗЮМЕ

Курсова робота на тему: Службові слова у мові та мовленні: теоретичні та практичні аспекти.

Виконала – Макарова Тетяна Сергіївна

Курсова робота складається зі вступу, двох розділів, висновку, резюме та списку використаних джерел. У першому розділі «Теоретичні аспекти службових слів» розглянуто декілька теоретичних аспектів: граматичні функції, моделі використання, когнітивна обробка та історична еволюція службових слів. У другому розділі «Практичні аспекти службових слів» представлена інформація про вплив практичних аспектів службових слів на комунікацію, вивчення та викладання мови, а також на обробку природної мови.

У даній курсовій роботі всього:

Сторінок – 24;

Список використаних джерел: 18.

## LIST OF REFERENCE MATERIALS

1. Bybee, J., Perkins, R., & Pagliuca, W. (1994). *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. University of Chicago Press.
2. Chomsky, N. (1957). *Syntactic Structures*. Mouton.
3. Croft, W., & Cruse, D. A. (2004). *Cognitive Linguistics*. Cambridge University Press.
4. Ellis, R. (2015). *Understanding Second Language Acquisition* (2nd ed.). Oxford University Press.
5. Heritage, J. (2012). Epistemics in Action: Action Formation and Territories of Knowledge. *Research on Language and Social Interaction*, 45(1), 1-29.
6. Hopper, P. J., & Thompson, S. A. (1980). Transitivity in Grammar and Discourse. *Language*, 56(2), 251-299.
7. Hopper, P. J., & Traugott, E. C. (2003). *Grammaticalization*. Cambridge University Press.
8. Jackendoff, R. (2002). *Foundations of Language: Brain, Meaning, Grammar, Evolution*. Oxford University Press.
9. Kamide, Y., Altmann, G. T., & Haywood, S. L. (2003). The Time-Course of Prediction in Incremental Sentence Processing: Evidence from Anticipatory Eye Movements. *Journal of Memory and Language*, 49(1), 133-156.
10. Kutas, M., & Federmeier, K. D. (2011). Thirty Years and Counting: Finding Meaning in the N400 Component of the Event-Related Brain Potential (ERP). *Annual Review of Psychology*, 62, 621-647.
11. Larsen-Freeman, D. (2018). *Techniques and Principles in Language Teaching*. Oxford University Press.
12. Manning, C. D., & Schütze, H. (1999). *Foundations of Statistical Natural Language Processing*. MIT Press.
13. Pinker, S. (1994). *The Language Instinct: How the Mind Creates Language*. Harper Perennial Modern Classics.

14. Sag, I. A., Wasow, T., & Bender, E. M. (2003). *Syntactic Theory: A Formal Introduction*. CSLI Publications.
15. Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A Simplest Systematics for the Organization of Turn-Taking for Conversation. *Language*, 50(4), 696-735.
16. "A Student's Introduction to English Grammar" by Rodney Huddleston and Geoffrey K. Pullum
17. "The Cambridge Handbook of Linguistics," Keith Allan and Kasia M. Jaszczolt
18. "Language Universals and Linguistic Typology: Syntax and Morphology," Bernard Comrie.