Analysis of the role and use of prefixes in word formation in modern german compared to english

Análisis de la función y el uso de los prefijos en la formación de palabras en el alemán moderno comparado con el inglés

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Abstract

The aim of the paper is to formulate and summarise the research on word formation in German in comparison with English. The literature review made it possible to conduct a typological analysis of word formation rules in German and English to classify the scope of current research in this area. The results showed that the paradigm shift of recent years has led to increased attention to issues related to language use and empirical issues, theories, and methods of word formation not only from a synchronic perspective but also from a diachronic one. The fact that words are formed distinguishes them from a competing process, phrase formation, in which phrases, i.e., groups of words, form collocations rather than words, i.e., groups of words to verbalise concepts. Since a phrase verbalises a concept in the same way as a word, these two methods compete both at the intra- and inter-linguistic levels. We conclude that it is the potential of word formation that distinguishes modern language from primitive language. The comparative compilation of German and English word formation models has led us to the typology of language.

Keywords: typology, prefixes, verbalisation, word formation, word patterns.

Resumen

El objetivo de este artículo es formular y resumir la investigación sobre la formación de palabras en alemán. La revisión bibliográfica permitió realizar un análisis tipológico de las reglas de formación de palabras en alemán e inglés para clasificar el alcance de la investigación actual en este ámbito. Los resultados mostraron que el cambio de paradigma de los últimos años ha llevado a prestar una mayor atención a las cuestiones relacionadas con el uso de la lengua y a las cuestiones empíricas, teorías y métodos de la formación de palabras no sólo desde una perspectiva sincrónica, sino también diacrónica. El hecho de que se formen palabras las distingue de un proceso competidor, la formación de frases, en el que las frases, es decir, los grupos de palabras, forman colocaciones en lugar de palabras, es decir, grupos de palabras para verbalizar conceptos. Dado que una frase verbaliza un concepto del mismo modo que una palabra, estos dos métodos compiten tanto a nivel interno como interlingüístico.
Concluimos que el potencial de formación de palabras distingue la lengua moderna de la primitiva. La comparación de los modelos de formación de palabras alemán e inglés nos lleva a la tipología lingüística.

Palabras clave: tipología, prefijos, verbalización, formación de palabras, patrones de palabras.

Introduction

According to Jalilbayli (2022), language typology in the most general sense means the classification of languages or language components based on common formal features, i.e., the comparison and classification of languages or language components based on certain features that are common to two languages or distinguish them from each other. It is important to note that typology is not an independent theory of grammar. Unlike

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functional, cognitive, or relational grammar or any of the many other systems designed to reveal how language works, typology aims to identify cross-linguistic patterns and relationships between these patterns (Maraieva, 2022). For this reason, the method and results of typological research are in principle compatible with any grammatical theory. Typology is the classification of languages or language components based on common formal features. It aims to identify cross-linguistic patterns and relationships between these patterns. Typology is not an independent theory of grammar and is compatible with any grammatical theory. It involves interlinguistic comparisons and studies the formal properties of languages. The selection of languages for research is a methodological challenge in typology. Typology can classify languages based on genetic affinities, geographic location, or demographics, but it primarily focuses on classifying languages based on their formal properties such as word order or morphology. While typological classification is distinct from other types of classification, it can be influenced by factors such as genetic, geographic, and demographic classifications. One specific example of how typology can be used to understand language is through the study of word order patterns and their correlations with the grammatical structure of a language. The correlation between word order and grammatical structure can extend to other linguistic features as well. Such typological studies provide valuable insights into the underlying principles and tendencies of language structures across different languages. They serve as evidence for the systematic relationship between word order, grammatical features, and broader linguistic universals. Understanding these correlations can aid linguists in predicting patterns, explaining language evolution, and unraveling the complexities of language typology.

Theoretical Framework or Literature Review

Currently, there is a growing interest in the diachronic change of word-formation patterns in cognitive-linguistic and constructionist approaches (Körtvélyessy et al., 2018). In this work, linguists convincingly point to the need for verbal interpretation, as the extension of communication is not possible with nouns. Stewart et al., (2023) propose the term "converb" to describe such constructions that have verbal but also hybrid properties (i.e., both noun and verb). Despite this, the authors do not pay enough attention to the difference between written and spoken language, which is likely to have a significant impact on the type of noun or verb.

Thus, typology uses interlinguistic comparisons, classifies languages or certain aspects of languages, and typology studies the formal properties of languages. In this context, Aliyeva (2023) argues that any typological study is based on the comparison of languages. In her work, she concludes that English subordinate clauses follow the nouns that modify them. However, this conclusion is incomplete for a typology, as it lacks a cross-linguistic perspective. In the same vein, Rakhimov & Mukhamediev (2022) add that, in a typological approach, one might expect to find a result like that English is characterised by placing subordinate clauses after nouns that describe them in more detail, after collecting data on subordinate clauses from a representative sample of languages around the world. Only after such data collection has been evaluated is it correct to use the word 'typical' in a statement such as 'x' is typical of language y (as compared to languages p and q)'.

Making an adequate selection of languages as a basis for research is one of the main methodological problems of typology research (Zavalniuk et al., 2022). After all, typology includes either a classification of languages or their constituent parts. In the first case of language classification, the goal is to divide different languages into certain categories. This is done based on common characteristics. In the classification of language components, the focus is on a particular construction of the selected languages, such as reflexive verbs, flat or discourse particles. Then, in the next step, all types of this specific phenomenon are identified using cross-linguistic data (Iseni & Rexhepi, 2023). The goal here is to better understand how a particular aspect of language works by finding out the degree of similarities or differences. There is also a great interest in finding out if there are correlations between the different patterns that can be found in a language.

According to Twardzisz (2023), the classification of language components includes, for example, word order typology or morphological typology. Typology deals with classification based on formal properties of language.

There are several types of relationships between languages that are worth mentioning. For example, languages can be divided into different classes based on their genetic affinities (Hartmann, 2018). If we were talking about language typology, we would combine all languages that have the same origin and thus

arrive at different "language families", such as Indo-European, Afro-Asian, etc.

Another aspect would be to group languages by their geographical location. Then we could talk about Australian or Indian languages and so on. We could also classify languages by demographics, such as languages with more than 100 million speakers, and so on (Khanetnok et al., 2023). Of course, all of these classification methods are useful in their own way to achieve a certain result, but they are not the same as typology. Typologists classify languages based on the forms they are composed of, such as morphemes, syntax, or spoken structures. However, the above differentiations do not mean that all other types of classification are not related to typological classification. Iacobini (2023), for example, notes that it is clear that there is a close relationship between typological and genetic classification.

Thus, although typological classification differs from genetic, geographical, and demographic classification, the typological characterisation of languages can be strongly influenced by these other factors.

In his work, Haspelmath (2023) uses Swiss German to show how suffixes and word-formation patterns are created through borrowing, as well as how language structure affects the formation of new suffixes, using examples of diminutive suffixes. Batool & Saleem (2023) extend the field of abbreviations through a corpus-based study, which helps to bring forward new ideas and broadens the linguistic aspect of the text.

Fabian (2023) investigates the problem of verb categorisation and finds that particle verbs can act as head verbs in complex sentences. He notes the similarities between participle verbs and verbs with prefixes, such as bekleiden and erwärmen. The author goes on to provide evidence that the resulting words, such as Übereinkunft or Rückgabe, are not nominalisations of the words übereinkommen and rückgeben, but are nominal compounds because the lexicon uses allomorphs. He also discusses infinitives, such as Wiederaufkommen, which are probably of the Zusammenrückung type. However, the author should check empirically whether the conversion from verb to noun might not be a more obvious explanation for two-component special formations or neologisms.

Gast & Borges (2023) investigates aspects of diachronic word formation. The authors investigate the interaction of noun composition in German with the recipients' prior knowledge and intra- and intertextual references using a corpus of noun compounds. This allows the authors to successfully build cultural knowledge through such word formation, for example, by recontextualising theological knowledge or differentiating Latin technical terms to create new categories. This study innovates in the field in several ways: the authors use a cultural and linguistic framework of diachronic word formation and show that in the early stages of language development, word formation is always contextualised and integrated into complex contexts.

In their study, Van Goethem, Norde & Masini (2023) analyse Schiller's vocabulary, which covers the poet's entire vocabulary, taking into account ung-derived and competing substantive infinitives. For example, some prepositions influence the formation of words, such as the preposition "nach", which only forms ung-abstracts of perfective verbs (e.g., "nach geschehener Erkennung"). The adjectives in participial phrases also show a different distribution: participial phrases with -würdig and -wert include both ung derivatives and substantive infinitives, while formations with substantive infinitives with -voll are impossible. According to the authors, the decrease in the use of ung derivatives can be explained by their function in functional verb structures, where they continue to be used today. Since they are most often found with verbal meaning, conditions were created for the use of substantive infinitives, which further emphasise the verbal nature.

Zhuravlyova (2023) points out that even though English also has a large number of prefixes, their use may be somewhat limited compared to German. For example, the prefix "un-" is used to form words with the opposite meaning (e.g., "happy" - happy, "unhappy" - unhappy). There are also prefixes with the meaning of "back" (e.g., "do" - to do, "undo" - to undo) or "turn" (e.g., "turn" - to turn, "return" - to return).

Compared to German, where prefixes can have many different meanings and influence the grammatical context, in English the use of prefixes can be more standardised and limited in their meaning (Baeskow, 2023). However, prefixes are still used to form new words and expand vocabulary.

Generally speaking, prefixes are an important element of word formation in both German and English. They add additional meanings to words and help to form new words. However, in German, prefixes can have a wider range of meanings and a greater influence on the grammatical structure of words than in English.

Methodology

In this work, various techniques and tools were employed to examine and categorize the morphological structures and patterns present within the English and German languages. The following techniques were used: a corpus analysis of examples helped identifying the range of morphological phenomena present in the language; the affix analysis allowed understanding the affixes meanings, productivity and their position relative to the root word as well as the word segmentation. These analyses reveal the systems and rules underlying word formation in the language. Additionally, specific frameworks were used to categorize the languages based on their morphological typology. These methods allowed identifying unique or rare features within the language, which provide insights into its specific morphological characteristics and potentially contribute to linguistic theory. Regularities, irregularities, and patterns discovered during analysis inform linguistic descriptions and help establish a comprehensive understanding of the language's morphological structure.

To conduct the present typological analysis of the role and use of prefixes in word formation in modern German compared to English, a certain amount of lexical material was processed for further analysis. This material included words with prefixes in both languages. A literature review was used to classify prefixes in German and English. The common and distinctive characteristics of prefixes in both languages were identified. It was also investigated which prefixes can have similar meanings and be used in similar contexts. An analysis of the morphological typology of language was carried out with a special focus on German and English. The typological analysis allowed us to consider the influence of prefixes on the meaning and grammatical properties of words in German and English. The method of comparison allowed us to compare the results of research by different scholars to identify possible factors that could explain the differences, such as historical or morphological features of each language.

The conclusions and generalisations of the study include the findings on the typological differences between prefixes in German and English, as well as the possible impact of morphological typology on the process of learning these languages.

Results and Discussion

Of the various approaches that exist within the framework of linguistic typology, morphological typology is considered in more detail in this paper in order to provide a basis for comparing German and English word formation.
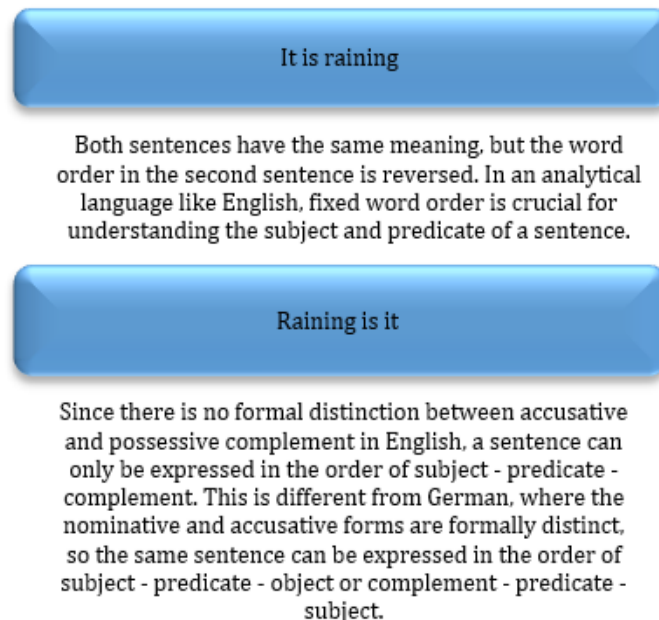
Based on morphological features, languages can be divided into different language types. This approach dates back to the classical morphological typology of the 19th century. There are synthetic-afflective, synthetic-agglutinative, and analytical or isolating languages, with most languages being classified as synthetic types (Baeskow, 2023). In a synthetic-afflective language, particles that contain grammatical information and explain the relationships in a sentence, i.e., inflectional morphemes, are attached directly to the word. A morpheme carries several pieces of information at the same time. This leads to variable word order since the relationships of the components in a sentence are unambiguous. This is the case in languages with a case system that is still largely intact, such as Latin or German.

In the group of synthetic languages, there are also languages that proceed in an agglutinative manner. Even in synthetic-agglutinating languages, morphemes are attached to the root of a word. However, a morpheme always contains exactly one piece of information, for example, the singular of a noun. If a word is in the singular genitive case, the corresponding case must also be indicated by another morpheme, which must also be added to the word. This approach allows for a clear segmentation of the word, as there is a 1:1 relationship between form and meaning (Gizi, 2018). So, a word in its existing form clearly has only one meaning. Turkish, Finnish, or Dravidian languages such as Telugu are typical examples of language agglutination.

On the other hand, such unambiguous segmentation as in the above example does not apply to inflectional languages, as an inflectional morpheme contains multiple pieces of information. In an analytic or isolating language, almost every word consists of only one morpheme, either the root or the stem morpheme (Zekun & Yuan, 2022).

A very good example of radically analytical languages is Chinese or Vietnamese, which are highly isolated and do not use declension or inflection (complete loss of inflection), but instead resort to service words, a certain sentence order, or intonation. As a result, there are no word forms and words often consist of only one morpheme. Therefore, analytical languages are languages with very low inflection. They are based on the use of free grammatical morphemes, such as prepositions, and on certain word order rules, such as English with its subject-predicate-complement word order. This word order has become entrenched as English has moved further and further towards an analytical/isolative language and the case system has become blurred. Thus, inflectional morphemes are largely absent, and semantic relationships would not be clear without the fixed word order. Only this provides information about the subject and object (Härtl, 2022). This is illustrated by the following example (Fig. 1).

It is raining

Both sentences have the same meaning, but the word order in the second sentence is reversed. In an analytical language like English, fixed word order is crucial for understanding the subject and predicate of a sentence.

Raining is it

Since there is no formal distinction between accusative and possessive complement in English, a sentence can only be expressed in the order of subject - predicate - complement. This is different from German, where the nominative and accusative forms are formally distinct, so the same sentence can be expressed in the order of subject - predicate - object or complement - predicate - subject.

Figure 1. Examples of inflectional language isolation.
Source: author's own design.

If we also assume that a noun is a word form in the genitive case and a second-word form in the dative case, then German is rich in word forms, while English is poor. This is illustrated by the following example (Figure 2):

Das Buch

(Genitive case)

Dem Buch

(Dative case)
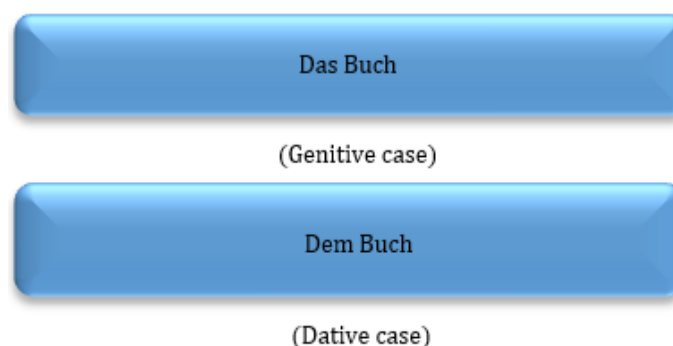
Figure 2. Word forms of the German language.
Source: author's own design.

So, we can say that nouns in German have more word forms than in English.

An important aspect that cannot be ignored is that languages cannot always be assigned to a single group. Transitions between language types are fluid, and not all characteristics are always present (Simbikangwa, 2022). Indeed, English uses elements of both the synthetic and analytical/isolating types to form different verb

238

tenses. For example, the past tense is formed by adding the suffix -ed to the stem of a verb, such as "walked". This is an example of synthetic formation.

At the same time, the future simple tense is used to form the future will with the auxiliary verb "will" and the main verb in the base form. For example, in the sentence "I will go", the verb "to go" is used in the form will go. In this case, "will" is an isolation-type element, as it indicates the future without the use of a special suffix or ending.
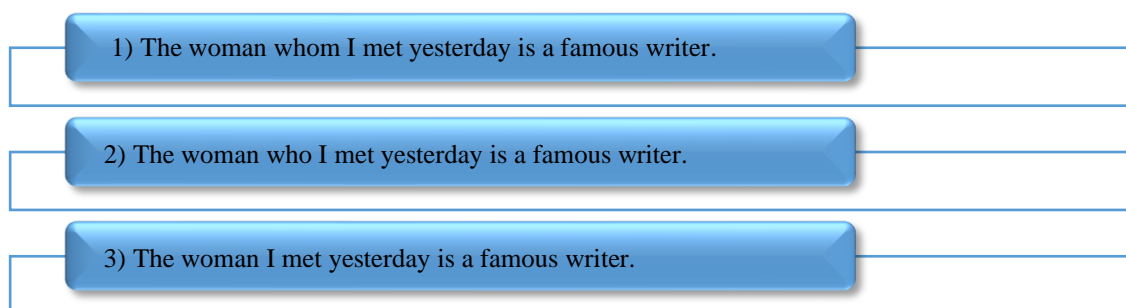
In general, we can say that the historical development of European languages has been "from synthetic to analytical languages", for example, French compared to Latin or modern Germanic languages compared to Germanic languages 1000 years ago.

German has also lost its inflectional richness and has therefore become more analytical than before

but is undoubtedly still a synthetically inflectional language (Oke Loko, 2022).

English, on the other hand, has significantly reduced its inflectional inventory and thus undergone "radical typological changes". Compared to Old English, it is now a very analytical language, and, according to Schweikhard & List (2020), even a largely isolated language in which individual lexemes hardly have different word forms.

Thus, nouns in English can appear in only two forms, either without case marking or in the possessive form, pronouns in these two forms and additionally with the object case (e.g., he - his - him, who - who - whom). However, in the case of relative and interrogative pronouns, the object case form (1) is becoming increasingly rare, at least in informal English, and the unmarked form (2) or the null form (3) is used instead, as in the example sentences below (Figure 3):

1) The woman whom I met yesterday is a famous writer.

2) The woman who I met yesterday is a famous writer.

3) The woman I met yesterday is a famous writer.

Figure 3. English language vocabulary.
Source: author's own design.

Articles and adjectives are not case-sensitive at all. Thus, there is no congruence in an English noun phrase, i.e., there is no formal correspondence between the noun head and the components that modify it (Bauer, 2020). In English, there is also no such thing as a clause, i.e., a case where, for example, a preposition or verb requires a certain case marker in relation to the following noun argument (Hüning & Schlücker, 2023).

However, both are typical features of the German language, where, in addition to inflectional gender markers, there is also a distinction between nominative, genitive, dative, and accusative cases in nouns, pronouns, articles, and adjectives.

A typological analysis of the role and use of prefixes in word formation in modern German compared to English shows that prefixes play an

important role in word formation and are widely used in both German and English (Booij, 2020). However, there are several differences in the use of prefixes in the two languages.

In German, prefixes are often used to form new words by combining them with a root. For example, the prefix "ver" can be used to indicate reversibility or a negative meaning, as in "verlieren" (to lose). In some cases, the prefix changes the meaning of the word completely, as in the word "versprechen" (to promise). In German, a prefix can have a meaning not only at the beginning of a word but also in the middle or at the end (Sommer-Lolei et al., 2023).

English also uses prefixes to form new words with a root. However, in English, prefixes are mostly used at the beginning of a word (Schweikhard & List, 2020) (Table 1):

Table 1.
Word-forming prefixes in English and German

English language	German language
Un-: unhappy, unfair	The prefix "un" is used for a negative meaning: unglücklich (dissatisfied, unhappy), uninteresting (uninteresting), unruhig (restless)
Dis- (cancellation or opposition): dislike, disagree	The prefix "ver-" is used to express a change, approximation, or alteration of a state: verändern (to change), verbinden (to connect), vertrauen (to trust)
Re- (repetition or again): rewind, redo	The prefix "zer-" is used to indicate breaking, removing, or destroying: zerbrechen, zerkleinern (to break), zerstören (to destroy)
Mis- (mistake or wrong): misunderstanding, misbehave	The prefix "vor-" is used to express anticipation, preliminary advance: vorbereiten (to prepare), voraussagen (to foresee), vorstellen (to imagine)
Pre- (before or before): prepare, predict	The prefix "nach-" is used to express after, approaching, or following: nachdenken (to think), nachfolgen (to follow), nachschlagen (to consult a reference book)

Source: author's own development.

Comparing the two languages, it can be noted that the use of prefixes in German is more flexible and varied, as they can be placed not only at the beginning of a word but also in the middle or at the end. However, both languages use prefixes to form new words and change the meaning of existing words.

A typological analysis of the role and use of prefixes in word formation in these languages is important for understanding the structure and functions of word formation in German and English. The study of prefixes can help to improve word formation skills and understanding of these languages.

Prefixes are one of the main types of affixes that are added to a word root to create new words. They integrate into the structure of the word before the root and change its meaning or grammatical characteristics. Prefixes can be added to verbs, nouns, adjectives, and adverbs, which allows you to expand the lexicon of a language and change their meaning.

The typological analysis allows us to classify prefixes according to various features, such as semantics, origin, function, and extension. In German, for example, there are a large number of prefixes that can have the semantics of modality formation, intensification, or vice versa, diminution of meaning, e.g: "ver-", "ent-", "be-", "er-" and many others. English also has a wide range of prefixes, for example: "un-", "re-", "dis-", "pre-", "in-" and others.

Learning about prefixes in these languages can help you understand their lexical system and use them in your own word formation. For example, knowing the prefixes can help you to form words correctly, resolve meanings, and understand the syntactic and grammatical rules of these languages.

Thus, a typological analysis of the role and use of prefixes in German and English word formation is important for improving word formation skills and understanding the structure of these languages. Without knowledge of prefixes, it is difficult to achieve full proficiency in the use of these languages.

Conclusions

A typological analysis of the role and use of prefixes in word formation in modern German compared to English has shown a multifaceted and interesting result. Prefixes are an important component of word formation in both languages, but their use and role in modern German is different from that in English.

In German, prefixes play an important role in creating new words and changing the meaning and lexical characteristics of existing words. In English, prefixes also play an important role in word formation, but their use and role is generally less pronounced than in German. Many prefixes in English have similar meanings and are used in different words.

The typological analysis has shown that the use of prefixes in German is more extensive and flexible, with more opportunities for word formation and changes in meaning. In English, the use of prefixes is less expressive and limited, although they also play an important role in word formation.

Such a comparative analysis of the role and use of prefixes in word formation in modern German and English emphasises the importance of studying word formation in different languages and reveals the specific features of each language.

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