Hierarchical Conceptualization
in Polish and Slovene Word Formation Discourses

Introduction

In this paper, I will briefly trace the hierarchy, which is here understood as a multi-faceted conceptual category. Thus, it is a form of categorization of human experience made up of several different understandings of the hierarchy and their realizations on different language levels. At the end, I will propose possible research programs for the linguistic category of hierarchy that differ in their scope. I will present the hierarchy in two languages: Polish and Slovene, in particular in the word formation discourses, with some Slavic background just to present the issue in a slightly broader way, and to show and recall certain similarities and differences also in Slavic word formation landscape.

The topic outlined above sets out at least two major research areas. One concerns the implementation of the category of hierarchy in both Slavic languages, discussing and showing its exponents; the other – as a form of linguistic con-
ceptualizing – the use of this category in the description of languages, in metalanguage, and in Polish and Slovene word formation discourse (or discourses). I will briefly touch upon both of these areas while bearing in mind that this topic far exceeds the scope of one paper.

My considerations are metalinguistic, pursuing how the hierarchy is conceptualized within particular discourses, with the main goal to show a particular area of contrastive research that refers to Polish and Slovene word formation metalanguages and their different (research, academic, communicative, social etc.) functions.

In order to show hierarchy in terms of linguistic conceptualization, I refer to the elements of discourse analysis. The procedure allows to show the implementation of the category of hierarchy as a form of negotiating meanings in Slavic linguistic discourses (in a broader perspective, linguistic communication) within the framework of individual theoretical and practical proposals. Therefore, I divide, on the one hand, the word-formation system (the plane of de Saussure’s langue), the use of this system in speech (the plane of de Saussure’s parole), and the plane of the word-formation discourse itself, which consists of all statements about word-formation, expressing various themes that create different word-formation sub-discourses (discourse perspective). Thus, all statements within the framework of word-formation activity relating to the problem of hierarchy create the word-formation discourse on hierarchy. In this work, I assume that this reference may be explicit when the language of description is explicitly used and refers to the concepts of hierarchy, hierarchization, etc., or implicit when the language of description does not use the concepts of hierarchy, hierarchization, etc., but hierarchy is a construct of the organization of word-formation themes and methods within the discourse.

What I am going to discuss is part of the metareflection of comparative research, including comparative word formation research and contrastive/confrontative word-formation research. In the terminological mosaic, which determines the word-formation field of research, certain traditions and conventions stemming from the rich literature of the subject are manifested. Just to make long story short, my considerations are situated in the interlingual comparative word formation metadescription.¹

¹ I must emphasize that the description of hierarchy as a conceptual, semantic category goes far beyond the word-formation space. Here I present a conceptualization of word-formation and meta-word-formation, but I believe that the use of the meta element, especially in the case of word-formation structure (‘name of the discipline’ and ‘formation of words’), can be perceived rather as redundancy, doubling or duplication of meaning and results more from a certain linguistic convention and usage.
Hierarchy in linguistic word formation literature

In the works on Slavic word formation, the concept of hierarchy is usually used to refer to various, heterogeneous phenomena. It serves as a component of the word-formation metalanguage, being a categorization scheme imposed on the described material, as a rule of ordering word-formation means within the word-formation systems of particular languages and the derivative structure itself that consists of at least two elements in the word-formation sense, i.e. a word-formation basis (root or stem) and a word-formation formant (see e.g. Jadacka, 2007; Kaproń-Charzyńska, 2005; Vidovič Muha, 2018; Voršič, 2013). Hierarchy is also used as a metaoperator in the linguistic metalanguage referring to the meaning of the derivatives (whether we consider such meaning as a structural word formation meaning or lexical etc.) (see e.g. Maldjieva, 2009, p. 55; Ološtiak & Ivanova, 2021, p. 371; Voršič, 2013).

When it comes to Polish and Slovenian linguistic literature, considerations regarding hierarchical relations in Polish word formation are not the subject of numerous and detailed studies. They appear when describing various issues related to derivation, often on the margin of detailed considerations, but they are not of a synthesizing nature. In Polish texts, the discussion focused primarily on hierarchy, specific valuation, word-formation techniques, word-formation units, and the hierarchy of derivative structures.

2 The term derivatives with the meaning of hierarchy means derivative words, derived in a synchronic sense, to which hierarchical meanings can be assigned, so here we mean such word-formation structures and word-formation exponents that we will assign to the semantic, conceptual category of hierarchy. However hierarchy might be also considered from the diachronic perspective (see Zarębski, 2012).

3 Hanna Jadacka wonders what consequences the different hierarchy of word formation means and techniques may have for the derivation system. Her reflections, inspired by the work of Iwona Kaproń-Charzyńska’s (2005), in which the researcher from Toruń proves that negative derivation, previously marginalized in the Polish word-formation discourse, is an important and common phenomenon within the Polish word-formation system, focuses on the hierarchy of Polish synchronous word-formation techniques. Jadacka motivates her reflection as follows: “Every attempt to precisely determine the essence and scope of specific derivational techniques (especially non-suffixal ones) obliges us to take a position on the rank of individual operations and word-formation exponents” (Jadacka, 2007, p. 9). Jadacka’s voice in the discussion is an example of dynamic hierarchy within word-formation discourse. Under the influence of negotiations and argumentation of certain word-formation knowledge, certain intersubjective statements and hierarchies are established, which can be further accepted or discussed.
Viara Maldjeva mentioned the hierarchy in the 9th volume of Bulgarian-Polish confrontational grammar as a subcategory of the broader category of relations, founded on second-order relational predicates. It implicitly appears when classifying formants, derivative structures, or classifying derivation techniques. She lists such examples such as Polish nadinspektor, superwizja, podcentrala, podgrupa, ponadpaństwowy, and Bulgarian поддиректор, подофицер, надклассов.

From a diachronic approach, Rafał Zarębski (2012) writes about the disappearance and neutralization of hierarchical meanings in derivatives with foreign and native prefixes, such as arcy-, nad-. In-depth analyses of the meanings of individual prefixes make it possible to capture semantic shifts and the loss of hierarchical meanings in particular derivatives.

With a synchronic approach, Krystyna Waszakowa devotes a lot of her works to the hierarchy of native and international word-formation forms (see for example Waszakowa, 2005). She uses a cognitive perspective, and considers conceptualization as a tool for highlighting important content in the derivatives (Waszakowa, 2017, p. 85).

In more detail, hierarchy is described in Slovenian word-formation literature. The meanings of hierarchical derivatives were acknowledged by Ines Voršić (2013), Boris Kern (2017); the hierarchical conceptualization is also present in works of Ada Vidovič Muha (2018) and Jože Toporišič (2000). The concepts of hierarchization of elements in Slovenian word formation are related to the structuralist understanding of the word formation system. In this respect, word formation analysis, as Ada Vidovič Muha (2019, p. 7) emphasizes, is based on the perception of language as a special system of meaning and structural connections that form hierarchically arranged units with open generative transformations. Hierarchical systems of references can be found in Word Family Dictionary of the Slovene Language: Test Volume for Entries in B by Irena Stramljič Breznik (Stramljič Breznik et al., 2004) and the original and constantly developed by Boris Kern concept of graduation word-formation (he uses the Slovenian term stopenjsko besedotvorje ‘graduation word-formation’, as opposed to the concept of besedna družina ‘word family’ used by Irena Stramljič Breznik) (Kern, 2017).

More on this topic see: Kowalski (2020).
Variety of methods and technique as a form of implicit hierarchy

In the era of multitude of research paradigms, schools and research trends among word formation research, it is difficult to achieve consensus for one universally accepted model that would become the basis for comparative description. Each perspective has its advantages and limitations. There is no place here to quote numerous discussions on this subject. Within the word-formation, significant methodological differences are visible, and different perspectives of approaching linguistic reality might be highlighted. One of the many primary tasks of Slavic word formation, as Elena Koriakowcewa (2016, p. 41) notes, is to develop and establish rules for an adequate description of the word formation system and the units (diverse, heterogeneous) that enter this system. As she writes: the word formation researcher is often faced with questions and problems of the logical organization (i.e. ordering) of research methods and the selection of appropriate terms (Koriakowcewa, 2016, p. 41). The above phrase refers to the problem of logical organization of both terms and methods, which is a manifestation of reflection on hierarchizing (implicit hierarchy) the word formation methods and word-formation terms as an indispensable element of the research process.

Contemporary word formation is also characterized by the search for common spaces for reaching the scientific (academic) truth. This stimulates the interpretation and reinterpretation of previous findings, to look at the methods of comparative word formation, and to develop a complex method of description based on tradition, but at the same time taking into account contemporary reflection. Therefore, the issue concerns the synthesis of meta-word-formation and word-formation thought, from which coherent description criteria may emerge based on the tradition of older comparative research, taking into account already well-known criteria and parameters, as well as new criteria, recently functioning in the word-formation and linguistics literature.

The view of the category of hierarchy word formation results from the perspective of semantics. It is expressed within word formation systems; it might be for instance differences in occurrence among native and international variants of word-formation elements (more on this topic see: Waszakowa, 2005, 2017):
The paraphrase in word formation is used to establish (distinguish) different derivational semantic classes. If we take into account the understanding of derivation as morphemic syntax, the paraphrase of hierarchy might be interpreted as ‘someone/something that is above/below, higher/lower, superior/inferior + phrase with predicative or argument content expressed in the subject’ see: pol.: *nadinspektor*: ‘an inspector who is above the ordinary inspector’, *subkategoria*: a category that is below the ordinary category’, *podgrupa*: ‘a group that is below the ordinary group’; slv.: *nadlogar*: ‘a gamekeeper that is above the ordinary gamekeeper’, *podnareče*: ‘a dialect that is below an ordinary dialect’.

For the language, the center of this semantic category are the prepositional expressions to be above someone/something, to be under someone/something, and thus understood spatially. In terms of word formation, these will be prefixes *nad-* and *pod-*, which (in similar variants) occur in all Slavic languages. With such examples as Polish: *nadinspektor* ‘inspector’, *superwizja* ‘supervision’, *podcentrala* ‘substation’, *podgrupa* ‘subgroup’, *ponadpaństwowy* ‘supranational’ (but *nadciśnienie* ‘hypertension’, *podciśnienie* ‘underpressure’, *hiperpoprawny* ‘hypercorrect’, *arcyciekawy* ‘ultra-interesting’, *superszybki* ‘super-fast’ – with meanings of intensity); Slovenian: *nadčlovek* ‘superman’, *nadstandard* ‘super-standard’, *podgeslo* ‘sub-password’, *podžanr* ‘subgenre’, *superdržava* ‘superstate’; Slovak: *nadštražmajster*, *nadporučík*, *nadvláda*, *poddostojnik*, *podpriemer*; Ukrainian: *супердиректор*, *підгрупа*, *підфракція*, *мініолігарх*.

The class of units expressing hierarchical meanings in the contemporary Polish word-formation system is heterogeneous from the point of view of their word-formation status. The situation is similar if we look at Slovenian units. Let see a few examples where we can interpret (classified) bottom exponents of hierarchy as derivational (morphological) exponents such as *nad-*-, *arcy-*, *prze-*, and lexical or syntactical *top*, *pan* (in the stable construction such as: X top, pan X where X refers to the noun (person or a thing) under the hierarchical conceptualization):

Jest wesoło, nadpolityk składa na siebie doniesienie.
‘It’s fun, the super-politician reports himself’
Nadpremier do tablicy
‘Super-premiere to the board’

Zibi top!
‘Zibi top’

Zobacz, jak pije, ale z niego arcymenel
‘Look how he drinks, he’s such an super-tramp’

Jak na nasze warunki to przepiłkarz
‘By our standards, he’s a great player’

Podjechał do nas pan kolarz
‘A Mr. cyclist approached us’

A certain difficulty with the hierarchical interpretation of such derivatives results from their lexicalization of meaning and neutralization of spatial meaning, which moved to the meaning of intensification (as an exponent of the category of intensity ‘effort beyond the norm’) (cf. e.g. Sojda, 2018, 2022). It seems that the final decision to classify a derivative or structure with a hierarchical meaning and not with the meaning of intensification or other may depend on the meaning of the base word and a context.

**Classification of hierarchical meanings in word-formation descriptions**

Categorizing and classifying specific content is usually a matter of academic convention adopted for the purposes of research, which differentiates linguistic descriptions, and where the concept of hierarchy serves as a form of organizing this knowledge (extralinguistic hierarchy). In the descriptions of Slovenian noun derivatives with the meaning of hierarchy, several semantically, highly differentiated classes are distinguished, which in Polish works are not explicitly assigned with hierarchical meanings. However, the Slovene classes of hierarchy (see Kern, 2017; Voršič, 2013) can be related thematically to the classes presented by the authors of the “Grammar of the modern Polish language. Morphology” (further GWJPM; GWJPM, 1984). These are the following classes: a) superiority-inferiority (*višje-nižje*), in GWJPM terminology superiority-inferiority; b) the opposite
(nasprotnost), in the GWJPM class: the opposite of the feature and the opposition; c) hierarchization in time (hierarhizacija v času), in GWJPM only the earliness and repetition of the phenomenon; d) hierarchization in space (hierarhizacija v prostoru), Slovenian derivatives of this class, such as mednapis ‘vmesni napis’, medpomnilnik ‘vmesni pomnilnik’, correspond in GWJPM to derivatives from prepositional expressions, such as przedmieście, przypiecek and others.

When reviewing Polish word-formation works, it can be noticed that such units as: arcybiskup ‘archbishop’, nadkonduktor ‘super-conductor’, podcentrala ‘substation’, podzespół ‘subteam’ are included in the group expressing the meaning of superiority – inferiority; hypercriticism, hiperinflacija, hiperfunkcja to meanings of size exceeding the norm or smallness below the norm (so augmentative – diminutive relations); nieprzyjaciel, nielad, antypowieść, antypapież to the group with the meaning of the opposite of the quality. In contrast to Slovenian works, the hierarchical meaning in such derivatives is not exposed, it does not enter the metalanguage resources used by the authors of GWJPM. This has its consequences in the word formation description, especially at the level of content categorization, but also at the formal level, important for word formation. Classification of, for example, Slovenian derivatives of the eksminister type to the class of simple derivatives (prefix formations), and in GWJPM to complex derivatives, in a confrontative description boils down to methodological problems, but it is not difficult to overcome. It may be of significant importance when distinguishing word-formation subcategories for both languages, i.e. sets of derivatives, which are distinguished by the criterion of the functional load of the formant. In this case, where the derivational technique is important, different results will be obtained in both languages, and the same fragment of linguistic reality will be categorized differently.

Polish and Slovene discourse of hierarchy
(discursive conceptualization)

Different Slavic word formation discourses provide vast examples of conceptualization of hierarchy. If we look at Slovene word formation discourse, we can find that this form of conceptualization is used as what we can call a meta or even a metameta tool (to describe the word formation system) and
as a meta tool (to describe meaning). The following examples from Slovenian literature show a variety of such form:

1. “The characteristic of appositional compounds is therefore the hierarchical equivalence of two or more stem, and such formations are written with a hyphen in accordance with the Slovenian linguistic norm”. (Voršič, 2013, p. 231; translation PK)

2. “Modern Slovenian word-formation theory stems from the principles of structuralism and the understanding of language as a system with hierarchical relationships”. (Voršič, 2013, p. 42; translation PK)

3. “Word formation as a linguistic subsystem has a characteristic hierarchical image: a) basic units of word formation – stem and affixes, b) word formation procedures – composition and derivation, c) word formation and onomasiological categories, č) word (formation) family”. (Voršič, 2013, p. 30; translation PK)

4. “An adjectival participle in a syntactic base can be transformed into a prepositional form if it is ordinal: it usually expresses hierarchy, perhaps also locality, temporality”/ …/ (Vidovič Muha, 1991, p. 109; translation PK)

In Polish, we can observe similar areas of hierarchical (these types of) conceptualization:

5. “I give the highest status in the hierarchy of word-formation means to affixes and cuts”. (Kaproń-Charzyńska, 2005, p. 26; translation PK)

6. “Due to such different possibilities of individual word-formation exponents, their further internal hierarchisation seems advisable” (Jadacka, 2007, p. 12; translation PK)

These are only several examples but the conceptualization of hierarchy explicitly appears in both discourses. However, it differs due to the references. In general, it functions as a metaoperator to characterize the word formation system and even broader the linguistic as a discipline – sub-discipline relation.

In the 4. it directly refers to the meaning, and in other (Slovenian and Polish) to the word formation system and even the broader linguistic perspective (see 3.). It is a dynamic structure and not closed to the conceptualization (see 6.).

This hierarchical thinking about language is common in linguistic discourses. Predrag Piper notes that modern linguistics commonly accepts
the thesis that “The content plan of each language [is] organized as a hierarchical system of meanings of different breadth and complexity and forms of their expression” (Piper, 2013, p. 199; translation PK).

The authors of the “Dictionary of linguistic terminology” in the entry hierarchy (with the addition of “in language”) cite a definition from which we can learn that it is a fact that language is a system of elements grouped according to the principle of functional superiority and inferiority. Superior elements are primary, founding, or conditioning elements, while subordinate elements are secondary elements (which can be further hierarchized at successive levels as: tertiary, quarterly, etc.), called foundational elements (Gołąb et al., 1970, p. 229; translation PK).

In this definition, the authors point to the intersection of hierarchy and gradation, which, as forms of conceptualizing the linguistic system, order and organize specific elements within it. Referring to grammar, a similar position is expressed by Zuzanna Topolińska, who claims that grammar is a hierarchically organized, orderly set of rules that generates correct sentences of a given language (Topolińska, 1984, p. 8).

In Polish linguistics, thinking about language as a hierarchical structure was common and connected with structural thinking. Piotr Sobotka (2019) draws attention to the fact that Jerzy Kuryłowicz conceptualizes language as a hierarchical system. Kuryłowicz’s understanding of the hierarchy of language is close to the definition from the dictionary of linguistic terminology. He claimed that viewing a language only as a system or a set of elements is a mistake, because a language consists of a hierarchically ordered set of subsystems of syntactic, morphological and phonetic, or rather phonological, categories. Importantly, hierarchical relations are created between individual forms functioning in the language from its various subsystems. Language is not an aggregate, but a system of elements ordered according to the principle of hierarchy (Kuryłowicz, 1987).

Not only can we relate this to structuralist thinking about the language (structuralist paradigm). In general, it seems that linguistic literature provides evidence for the acceptance of the fact that the issues of hierarchy apply to all linguistic descriptions and linguistic planes. For example, “Grammar of the modern Polish language. Syntax” (further GWJPS; GWJPS, 1984) emphasizes the hierarchy within syntactic research, in the model of predicate-argument structures, which was used in word formation, also in the confrontative approach. For the syntactic level, Stanisław Karolak (2001) writes about three
types of syntax (semantic syntax, structural syntax and word order), while his model of syntactic description boils down to arranging these types in a hierarchical structure. He sees hierarchical conceptualization in a model of grammar: “We will define grammar as a set of combinatorial rules that allow the creation of units composed of simple units, or in other words, higher-order units from lower-order units” (Karolak, 2001, p. 21; translation PK) and “In the semantically based grammar, we consider it theoretically justified to subordinate less general rules to universal rules. We have therefore adopted a hierarchy in which conceptual grammar – a set of rules for the co-occurrence of concepts typical of the language of thought, and therefore of all natural languages – is the dominant, superior component of the model.” (Karolak, 2001, p. 29; translation PK).

The dominant role is assigned to the research of semantic syntax, understood as a set of rules for the connection of meanings of expressions, which is situated above the rules of structural syntax, limiting the operation of semantic-syntactic rules, having separate (idiomatic) characteristics for different languages. At the very end, the rules of word order are applied, which establish (order) expression components, also of an idiomatic nature. In the model constructed in this way, one can see the use of the category of hierarchy as a conceptualization of the global description of the syntax of a natural language. For syntactically oriented word formation, which uses predicate-argument structures, the word order syntax has a different character. With such a model, it may come down to variants within prepositional, interpositional, or postpositional elements in relation to the word-formation base (stem).

In his contrastive Bulgarian-Polish studies of the semantic category of aspect Stanisław Karolak (2008, p. 24) regards aspectual configurations as complex hierarchical structures. In the given example of Bulgarian verb form заприличваше, he sees continuous dominant with the meaning of an open set of non-tangential events (discontinuous aspects). Its exponent is the -ва-, which is reduplicated by the morpheme -ш-; however, subordinate to the dominant is the complex conclusive aspect, which is the product of two simple aspects expressed discreetly with the discontinuous prefix за- and the continuous

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5 This form of hierarchical conceptualization is not exclusive to the contemporary linguistic view. Looking back a bit, in Leibniz’s work, for example, we are dealing with considerations on the functional hierarchy of expressions, where the hierarchical sequence begins with simple, elementary expressions and ends with complex ones.
stem прилич- (Karolak, 2001, p. 25). The hierarchical structure of this verb is therefore a hierarchical, three-element, formal structure.

The exponents of hierarchical conceptualization here are expressions such as dominant and subordinate, and the framework defining the field of hierarchy is determined by the verb form (in the formal plane).

**Instead of a summary**

The previous reflection allows us to present the hierarchical conceptualization in the word formation perspective through various parameters. That is:

- Arrangement of the structure of elements and their classification due to the (isolated) adopted criteria.
- Vertical axis (superior – inferior)
- Horizontal axis (before-after)
- Subcategories: gradability, augmentation – diminutiveness, and others.
- Axiologization
- (spatial categorization scheme).

Thus, the multifaceted nature of hierarchy in the word-formation perspective prompts us to propose at least two research programs that differ in their scope. A narrower program, covering hierarchy as only a word-formation category, which can be described as a minimalist program, may come down to an inventory and description of the word-formation exponents of hierarchy in the word-formation system, showing their mutual relations within the word-formation system, the role in creating derivatives with a hierarchical meaning and in the language, as well as the presentation of their use in word-formation mechanisms in specific derivatives and implementations at the communication level in one, two or more languages (so also from the comparative, contrastive word formation perspective). The exponents of the categories included in the created word-formation units constitute in this case a narrowly understood word-formation category of hierarchy. A broader program, let’s call it maximalist (or maybe better mediolist), may include the understanding of hierarchy also in the description of language, reflection on hierarchy contained in word-formation literature, the perception of all word-formation as a form of intertwining negotiated hierarchies, taking into account the broader linguis-
tic background, going beyond word-formation itself. In this approach, we are dealing with a much broader category and meta-category of hierarchy, which includes elements that can be characterized as the hierarchical discourse (discourse of hierarchy) and the discourse about hierarchy. Thus, the maximalist program includes word-formation discourse on hierarchy, as well as elements of the general linguistics and linguistic discourse of hierarchy.

LIST OF ABBREVIATIONS

GWJPM – Gramatyka współczesnego języka polskiego: Cz. 2. Morfologia (Grzegorczykowa et al., 1984).
GWJPS – Gramatyka współczesnego języka polskiego: Cz. 1. Składnia (Grochowski et al., 1984).

BIBLIOGRAPHY


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The aim of the paper is to present the hierarchy as a multi-faceted conceptual category. The topic sets out at least two major research areas. One concerns the implementation of the category of hierarchy in Polish and Slovene languages, discussing and showing its exponents, the other – as a form of linguistic conceptualizing – the use of this category in Polish and Slovene word-formation discourses.

Keywords: conceptualization; conceptual category; hierarchy; Polish language; Slovene language; word formation; word-formation discourse

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