JOURNAL OF
PEDAGOGICAL AND PHILOLOGICAL RESEARCH
VOLUME-1, ISSUE-5, 2026

Meronymy and Holonymy: Semantic-Structural Evolution and Classification of Part-Whole Relations in Linguistics

Barchinoy Normatova

Master's student at the National University of Uzbekistan named after Mirzo Ulugbek

Email: barchinoyone@gamil.com

Abstract. This article explores the theoretical foundations, development, and classification of meronymy and holonymy as essential semantic relations in linguistics. The study examines various types of part-whole relationships, their semantic-structural features, and their role within the linguistic system. It also analyzes the evolution of meronymic and holonymic units in the lexical-semantic framework, highlighting their categories and interconnections through illustrative examples. The paper proposes theoretical insights and classification approaches that contribute to a deeper understanding of part-whole relations in language.

Keywords. meronymy, holonymy, part-whole relations, semantic structure, lexical semantics, classification, linguistics, semantic evolution, lexical units.

Annotatsiya. Ushbu maqola tilshunoslikda muhim semantik munosabatlardan biri hisoblangan meronimiya va holonimiya hodisalarining nazariy asoslari, rivojlanish bosqichlari hamda tasnifini o‘rganishga bag‘ishlangan. Tadqiqotda qism-butun munosabatlarining turli ko‘rinishlari, ularning semantik-struktural xususiyatlari va til tizimidagi o‘rni tahlil qilinadi. Shuningdek, maqolada meronimik va holonimik birliklarning leksik-semantik tizimdagi evolyutsiyasi, ularning kategoriyalari va o‘zaro aloqalari misollar asosida yoritiladi. Natijada qism-butun munosabatlarini chuqurroq anglashga xizmat qiluvchi nazariy xulosalar va tasnifiy yondashuvlar taklif etiladi.

Kalit so‘zlar. meronimiya, holonimiya, qism-butun munosabatlari, semantik struktura, leksik semantika, tasnif, tilshunoslik, semantik evolyutsiya, leksik birliklar.

Part-whole relations had been indirectly studied in philosophy and early linguistic thought long before the terms “meronymy” and “holonymy” became part of linguistic

terminology. In classical philosophy, part-whole relations were studied in relation to metaphysics, ontology, and logic, and laid the groundwork for what would come to be known as mereology in the works of Aristotle, in his book "Metaphysics". However, these studies were ontological, not linguistic, and did not treat part-whole relations as relations between meanings.

In early structural linguistics of the first half of the 20th century, the focus was mainly on paradigmatic semantic relationships such as synonymy, antonymy, and hyponymy, as well as phonological and morphological organization [Saussure][Bloomfield]. Part-whole relationships were of little interest since they did not lend themselves to the binary oppositional models that were preferred in structuralist methodology. Similarly, in traditional lexicography, definitions in the dictionary often referred to the parts of an object, but these definitions were intuitive and descriptive, and not formalized in a semantic framework[1]. As a result, part-whole relationships were not considered as a separate semantic category. As a consequence, despite the familiarity with the notion of part-whole relations, it had not been given terminological definition or theoretical status in linguistic semantics until the development of modern lexical semantics in the mid-twentieth century. Due to the efforts of John Lyons who gave the first definition, meronymy came to be treated as a lexical-semantic relation. He defined meronymy as a relation between lexical items, stating that *X* is a meronym of *Y,* if *X* denotes a part of what *Y* denotes [2]. This indicates that *head is a meronym of body* since it denotes a part of body. Moreover, he differentiated meronymy from other major paradigmatic semantic relations. unlike hyponymy, which encodes kind-of relations, meronymy does not involve class inclusion but rather structural or functional composition. It is also different from synonymy, which concerns similarity of meaning and from antonymy which involves semantic opposition. By clearly separating meronymy from these established semantic relations and providing it with a precise

[1] Cruse, D. A. Lexical Semantics. Cambridge University Press, 1986.
[2] Lyons, J. Introduction to theoretical linguistics. Cambridge University Press. 1968.

definition, Lyons effectively established meronymy as an independent and systematic category within English lexical semantics. This intervention marked the formal entry of meronymy into modern linguistic terminology and laid the foundation for subsequent theoretical, cognitive, and computational studies of part-whole relations. Other American linguists, Joseph B. Casagrande and Kenneth Hale, made an important contribution to the investigation of semantic relations in Papago (Tohono O'odham) folk definitions [3]. Although they did not introduce the term of *meronymy* or *holonymy*, their study provided compelling empirical evidence that part-whole relations play a crucial role in human conceptualization. They demonstrated that speakers frequently define objects and entities by listing salient parts and functional components, rather than by assigning them to abstract taxonomic categories. This finding suggested that meronymic relations are cognitively primary and psychologically real, grounded in perception, cultural practice, and everyday experience.

The contrast between Lyon's and Casagrande and Hale's approaches is informative. Casagrande and Hale emphasized how part-whole relations function in actual language use and cognition, revealing the intuitive strategies speakers employ when constructing meaning. Lyons, by contrast, left out usage to provide a formal definition and classification, thereby granting meronymy theoretical legitimacy within the framework of modern semantics. Together, these perspectives clarify how meronymy emerged as both a cognitively grounded phenomenon and a formally recognized semantic relation.

Oswald Werner, American researcher, argue that part-whole relations are not merely linguistic, but are deeply embedded in cultural knowledge systems. He proposed that meronymy functions as a universal cognitive principle that organizes how people classify objects, shapes how dictionaries and semantic descriptions should be

[3] Casagrande, Joseph B. and Hale, Kenneth L. "Semantic Relationships in Papago Folk-Definitions." 1967

constructed and influences the organization of folk taxonomies[4]. Thus, it can be inferred that meronymic relations are essential to both conceptual organization and the practical construction of dictionaries, as they reflect culturally salient ways of comprehending and categorizing the world. They claim that meronymic relations provide the theoretical link between lexicographic entries and ethnographic knowledge meaning that how communities understand their environment. For example, when describing a tool, a culture may define it through its parts and functions rather than through abstract category membership (kind of object). Werner and Topper further emphasize that the selection of salient parts is culture-specific. Different communities may highlight different components of the same object depending on ecological conditions, social practices, technological development, or ritual significance. Thus, while meronymy may be universal as a cognitive organizing strategy, it is not universal in its specific realizations. The particular meronymic structures that appear in a given language or culture are shaped by cultural priorities and the practical needs of the community.

The classification of part-whole relations was the major milestone in the development of meronymy theory, which was proposed by Cruse initially and later refined by Winston, Chaffin, and Herrmann. Part-whole relations are divided into six types, including component-integral object, member-collection, portion-mass, stuff-object, feature-activity, and place area. This work showed that meronymy is a family of relations, not a single relation.

With regard to its development in Russian linguistics, although meronymy and holonymy were not introduced as a separate terms like in Western linguistics, they were systematically investigated as a semantic structure and lexical meaning. A.A.Potebnya and L.V.Shcherba's views were essential to the early foundations, which was emphasized to the internal semantic structure of words and the role of functional and

[4] Oswald Werner. The Synthetic Informant Model: On the Simulation of Large Lexical/Semantic Fields, in M. D. Loflin and J. Silverberg, Discourse and Inference in Cognitive Anthropology: An Approach to Psychic Unity and Enculturation, Mouton, pages 45–82. 1978.

structural properties of objects in meaning formation, even though these scholars did not use the term “meronymy” in their works “Мысль и язык” and “О трёх аспектах языковых явлений и об эксперименте в языкознании”. In the second half of the 20th century, with the development of the lexical-semantic system, part-whole relations began to be described more clearly. In particular, the work of Yu. D.Apresyan on integral and differential semes gained importance. He identified the need to interpret the meaning of a word not only taxonomic, but also through structural and functional relations[5]. From this point of view, part-whole relations were considered as as essential semantic relation which forms the lexical meaning.

In Uzbek linguistics, representatives of the Bukhara school of linguistics introduced the term meronymy under the name "partonymy" in the 1990s[6]. Jamila Djumabaeva emphasized that the phenomenon of meronymy as partonymy in the Uzbek language has been studied only in one scientific work - B.E.Kilichev’s PhD thesis “O‘zbek tilida partonimiya” (“Partonymy in the Uzbek language”) in her article entitled “Graduonymy and other semantic categories in Uzbek and English”[7]. According to Kilichev’s research, partonymy is a lexical-semantic relation in which one lexical unit denotes to a component or part of the object expressed by another lexical unit[8]. It follows from this that the whole is a holonym and a part refers to the partonym (meronym). Meronymy, which is new to Uzbek linguistics, is widely researched in English and is equivalent to partonymy in Uzbek. Asqar Eshmuminov also explored the application of meronymy as a concept in both Uzbek and European linguistics study. Furthermore, another researcher Sojida Mustafoyeva worked on the semantic and stylistic characteristics of meronymy in Uzbek comparing with English[9].

[5]Апресян, Ю. Д. Лексическая семантика: Синонимические средства языка. - Москва: Наука, 1974.
[6] Eshmuminov A., Tilshunoslikda meronimiya hodisasi tadqiqi // Maqola, 15(4), – 134-148b. 2022.
[7] Djumabayeva J., Graduonymy and other semantic categories in Uzbek and English. Journal of Linguistic Studies, 25(3), – 45-58p. 2018.
[8] Kilichev B. O‘zbek tilida partonimiya: f.f.n. diss. avtoref. –T., 1997. – 22 b.
[9] Mustafoyeva S., Semantic and stylistic characteristics of meronymy in English and Uzbek. Linguistic Studies in the East, 12(2), – 123-135p. 2016.

In modern linguistics, the study of lexical relations plays a central role in revealing how languages structure knowledge and categorize the world. Among these relations, meronymy (part-whole relations) and holonymy (whole-part relations) are considered fundamental because they reflect how speakers mentally segment objects, organisms, processes, and abstract concepts into meaningful components. These relations are crucial in lexicography, semantics, cognitive linguistics, language teaching, computational linguistics, and cross-linguistic studies.

Although meronymy is universal, languages differ in how they encode part-whole relations, what lexical units qualify as parts, and how those relations are grammatically expressed. A comparative examination of English, Russian, German, and Uzbek shows significant differences rooted in morphology, cultural categorization, and the structure of the lexicon. For example, English maintains a fine-grained distinction between *arm* and *hand*, whereas Russian uses the single term *рука* for both[10]. Similarly, Uzbek uses the word *qo'l* both for the hand and arm in many contexts, demonstrating culturally specific segmentation patterns[11].

This chapter provides a detailed overview of the definition, theoretical background, typology, and cross-linguistic representation of meronymic and holonymic relations, with references to key scholars such as Lyons[12], Cruse [13], Winston et al.[14], and others, as well as Russian and Uzbek linguistic traditions.

Meronymy is a semantic relation in which one lexical unit denotes a *part* of something denoted by another lexical unit. Formally, X is a meronym of Y if X denotes a constituent part of Y: *wheel* - *car*, *branch* - *tree*, *keyboard* - *computer*[15]. Russian linguists define meronymy as *отношения часть-целое*, emphasizing that the relation

[10] Апресян, Ю. Д. Лексическая семантика: Синонимические средства языка. - Москва: Наука, 1974..
[11] Karimov, A. O'zbek tilida semantik munosabatlar. Toshkent: Fan. 2010.
[12] Lyons, J. Semantics. Cambridge University Press. 1977.
[13] Cruse, D. A. Lexical Semantics. Cambridge University Press. 1986.
[14] Winston, M., Chaffin, R., and Herrmann, D. A taxonomy of part-whole relations. Cognitive Science, 11(4), 417-444. 1987.
[15] Cruse, D. A. Lexical Semantics. Cambridge University Press. 1986.

describes structural or functional dependence[16]. German linguistics uses terms such as *Bestandteil-Ganzes* (component-whole)[17].

Holonymy is the inverse relation, Y is a holonym of X if Y denotes the e of which X is a part: *car* is a holonym of *wheel*, *tree* is a holonym of *branch*, *computer* is a holonym of *keyboard.* Holonymy is less frequently discussed in Russian and Uzbek linguistics as an independent category, but is typically described through the general relation *целое-часть*[18].

It is essential to distinguish meronymy from hyponymy because both involve hierarchical relations. However, they reflect different conceptual structures:

Table 1.1 Conceptual structure of hyponymy and meronymy

Relation	Type of connection	Example
Hyponymy	Category membership (“kind of”)	rose – flower
Meronymy	Structural composition (“part of”)	wheel – car

As Lyons explains, meronymy describes *constitution*, not categorization. Therefore, *wheel-car* cannot be paraphrased as “a car is a kind of wheel”, showing why hyponymy and meronymy must remain conceptually distinct[19].

The most widely accepted typology was proposed by Winston, Chaffin, and Herrmann. However, three core types of meronymy were the first identified by D.A.Cruse among the earliest scholars:

Table 1.2. Classification by D.A.Cruse[20]

№	Type	Definition	Example

[16] Апресян, Ю. Д. Лексическая семантика: Синонимические средства языка. - Москва: Наука, 1974..
[17] Duden. Die Grammatik. Mannheim: Dudenverlag. 2007.
[18] Апресян, Ю. Д. Лексическая семантика: Синонимические средства языка. - Москва: Наука, 1974..
[19] Lyons, J. Semantics. Cambridge University Press. 1977.
[20] Cruse, D. A. Lexical Semantics. Cambridge University Press. 1986.

1	Part meronymy (Component-integral object)	A relation where the part is a functional, structural, or essential component of the whole.	English: engine -car, keyboard - computer Russian: руль - автомобиль German: Rad - Fahrrad Uzbek: g‘ildirak - mashina
2	Member meronymy (Member-collection)	The part is an element of a collection or group. Member meronymy reflects collectivity, non-physical grouping, and independence of members.	English: student - class, tree - forest Russian: солдат - армия German: Schüler - Klasse Uzbek: o‘quvchi - sinf, sigir - suruv
3	Substance meronymy (Substance-object)	The part represents the material from which the whole is made.	English: wood - table, iron - bridge Russian: хлопок - рубашка German: Holz - Haus Uzbek: paxta - kiyim, po‘lat - ko‘prik

Winston highlights that properties of part meronymy consists of clear structural boundaries, functional importance, and obligatory or near-obligatory components.

Cruse also distinguished necessary and optional subtypes of meronymic relations (necessary meronyms, such as *eye-body*, indespensible structural or functional parts, while optional meronyms, denote non-essential or peripheral components). Although Cruse’s framework was fundamental, it had limitations in clearly distinguishing from other inclusion relations, such as spatial inclusion, class inclusion, and from several other semantic relations: attribution, attachment, and ownership. Later, Winston, Chaffin and Herman have proposed additional types to capture more subtle relations:

Table 1.3. Classification by Winston, Chaffin and Herman[21]

№	Type	Definition	Example
4	Portion meronymy (Mass–portion meronymy)	A relation where the meronym denotes a measurable or divisible part of a mass noun, and the holonym denotes the entire substance or whole quantity.	English: slice - pie Russian: кусок - торт Uzbek: bo‘lak - non
5	Feature meronymy (Attribute meronymy)	A relation where the meronym expresses an inherent property, attribute, or characteristic that constitutes an essential descriptive aspect of the holonym.	English: color - object, taste - fruit Russian: цвет - предмет German: Farbe - Objekt Uzbek: rang - buyum
6	Area meronymy (Place–area meronymy)	A relation in which the meronym refers to a spatial sub-area or region that is included within a larger geographic or spatial entity	English: north - country, top - mountain German: Norden - Deutschland Uzbek: Toshkent - O‘zbekiston

These extended types demonstrate that meronymy is cognitively rich and cannot be reduced to mere physical part-whole relations. Another linguist, George A.Miller developed WordNet, which is the most influential computational model of lexical relations, at Princeton University. Among the semantic relations, meronymy occupies a central role in this model. The theoretical basis for WordNet’s model of meronymy was influenced by two sources:

[21] Winston, M., Chaffin, R., and Herrmann, D. A taxonomy of part-whole relations. Cognitive Science, 11(4), 417-444. 1987.

1. "A taxonomy of part-whole relations" by Winston, Chaffin, and Herrmann
2. The linguistic diagnostics for meronymy established by Cruse.

Three subtypes of meronym relations are distinguished in WordNet: part meronym, member meronym, and substance meronym, which streamlines the six-type taxonymy of Winston et al. to ensure ease of production of a language and better lexical consistensy. Each subtype follows its own pattern of feature:

1) A part meronym implies that the whole has the part: *chapter – book, leaf – tree, engine – airplane.*
2) A member meronym implies that the whole contains the member: *soldier – army, citizen – country, player – team.*
3) A substance meronym implies that the whole is made of the substance: *water – ice, glass – window, clay – brick*[22].

Cruse identifies several semantic properties of meronymy:

1. Unilaterality: if X is part of Y, Y is not part of X.
2. Transitivity: if A is part of B and B is part of C, A may be part of C. This is common in anatomical vocabulary (*finger – hand – arm – body*).
3. Functionality: many meronyms are defined by their function (*brake – car*).
4. Necessity: some parts are obligatory (*heart – body*), others optional (*spoiler – car*)[23]. Russian linguist Apresyan calls this *степень обязательности частей* [24].

Although meronymic relations are universal, languages differ significantly in how they lexicalize, categorize, and conceptualize part-whole structures. These differences arise from historical, morphological, cultural, and cognitive factors. A comparison of English, Russian, German, and Uzbek reveals how each linguistic system encodes meronymy through its own lexical, syntactic, and morphological mechanisms. English is considered one of the languages with the finest lexical granularity in part-whole

[22] Miller, G. A. WordNet: An Electronic Lexical Database. Princeton University. 1990.
[23] Cruse, D. A. Meaning in Language (3rd ed.). Oxford University Press. 2011.
[24] Апресян, Ю. Д. Лексическая семантика: Синонимические средства языка. - Москва: Наука, 1974

relations, particularly in anatomical, mechanical, and technical vocabularies. The lexicon often distinguishes between very small or fine-grained components of objects or bodies. For example:

a. *toe*, *heel*, *ankle*, *instep*

b. *knuckle*, *wrist*, *palm*, *forearm*

c. *keyboard*, *touchpad*, *CPU*, *motherboard* (technical meronymy)

As Cruse notes, English distinguishes "part-whole hierarchies with remarkable lexical precision"[25]. This fine segmentation reflects a cultural and scientific orientation toward classification and precision.

In computational linguistics, English is the basis for WordNet, which provides formalized meronymic structures classified as[26]:

1) part meronymy (*door - house*)
2) member meronymy (*player - team*)
3) substance meronymy (*metal - sword*)

These relations are used extensively in artificial intelligence, ontology design, semantic, and machine translation, making English meronymy one of the most structurally documented.

Russian shows significantly broader lexical categories and less segmentation in certain domains. For instance:

a. The word рука refers to both "hand" and "arm," covering two English meronyms.

b. The word нога similarly denotes both "leg" and "foot."

This lexical merging means that Russian often conceptualizes the human body in larger, less fine-grained parts than English. This pattern has been widely discussed in

[25] Cruse, D. A. Lexical Semantics. Cambridge University Press. 1986.
[26] Miller, G. A. WordNet: An Electronic Lexical Database. Princeton University. 1990.

Russian cognitive semantics[27] [28].

Other examples of meronymy in Russian include:

a. голова, which may refer to head as an anatomical part or the top of an object.

b. лист, functioning across different meronymic structures depending on the context.

Russian expresses meronymic relations syntactically using constructions such as:

a. часть X (“part of X”)

b. состоит из X (“consists of X”)

c. входит в состав X (“enters into the composition of X”)

The degree of obligatoriness (*обязательность частей*) is an important Russian conceptual feature: some parts are considered essential (*сердце – тело*), while others are subsidiary. Thus, Russian meronymy reveals a cognitive tendency toward holistic categorization, grouping related concepts into broader units.

German belongs to the Germanic family like English, but differs in how it encodes meronymy. One of the most distinctive features of German is compound word formation, which frequently integrates meronymic relations directly into the lexicon. Examples include:

a. *Fahrradkette* - “bicycle chain” (chain as part of a bicycle)

b. *Handschuh* - “hand shoe” (glove - clothing for the hand)

c. *Zahnbürste* - “tooth brush” (brush for teeth)

d. *Türgriff* - “door handle” (handle of a door)

These compounds express part-whole relations transparently, embedding meronymy into the internal structure of a single lexical unit[29].

German also distinguishes components of objects with high precision, especially in mechanical domains:

[27] Апресян, Ю. Д. Лексическая семантика: Синонимические средства языка. - Москва: Наука, 1974.
[28] Кубрякова, Е. С. Язык и знание. На пути получения знаний о языке: Части речи с когнитивной точки зрения. Роль языка в познании мира. - Москва: Языки славянской культуры, 2004.
[29] Duden. Die Grammatik. Mannheim: Dudenverlag. 2007.

a. *Getriebe* (gear system)

b. *Lenkrad* (steering wheel)

c. *Kupplungspedal* (clutch pedal)

Such lexical precision is supported by German's morphological productivity. In syntactic expressions of meronymy, German uses phrases such as:

a. *Teil von X* ("part of X")

b. *besteht aus X* ("consists of X")

Overall, German language demonstrates a strong tendency toward morphologically encoded meronymy, contrasting with the lexical distinctions of English and the broad categorizations of Russian.

Uzbek, as a Turkic language, expresses meronymic relations primarily through syntactic constructions, rather than lexical accuracy or compounding. Common structures include:

a. X ning qismi — "a part of X"

b. X dan iborat — "consists of X"

c. X tarkibiga kiradi — "enters into the composition of X"

These constructions highlight the relational nature of meronymy in Uzbek. Uzbek also demonstrates cultural patterns in meronymic naming. For instance, parts of traditional clothing and architecture carry culturally specific lexical meronyms:

a. Clothing: *do'ppi* (skullcap), chopon, atlas

b. Architectural elements of *uy* (house) or *hovli* (courtyard): *ayvon*, *supra*, *dahliz*, *tokcha*

These culturally embedded meronyms reflect traditional categories of Uzbek daily life[30]. In some words related to body parts, Uzbek sometimes matches Russian patterns:

a. *qo'l* can mean "arm" and "hand" depending on context.

[30] Кубрякова, Е. С. Язык и знание: На пути получения знаний о языке: Части речи с когнитивной точки зрения. Роль языка в познании мира. - Москва: Языки славянской культуры, 2004.

b. *oyoq* can refer to “foot” and “leg.”

These broader categories indicate that body parts are conceptualized more holistically in Uzbek than in English or German. Thus, Uzbek meronymy shows features of syntactic encoding, cultural categorization, and semantic broadness, making it distinct from both Indo-European comparison languages.

Meronymic and holonymic relations are vital for comprehending how languages structure lexical meaning and conceptualize complex entities. The canonical classification into part, member, and substance meronyms, along with extended types, provides a robust framework for semantic analysis[31].

The analysis of meronymic and holonymic relations across English, Russian, German, and Uzbek demonstrates that part-whole structures, while universal in human cognition, are shaped in distinct ways by each language’s lexicon, morphology, and cultural worldview: English demonstrates fine-grained lexical distinctions, Russian favors broader categories, German employs compounding, and Uzbek relies on syntactic constructions and culturally embedded terms. These differences highlight the interplay between linguistic structure, cognitive representation, and cultural knowledge.

REFERENCES

1. Karimov, A. O‘zbek tilida semantik munosabatlar. Toshkent: Fan. 2010.
2. Casagrande, Joseph B. and Hale, Kenneth L. “Semantic Relationships in Papago Folk-Definitions.” 1967.
3. Cruse, D. A. Lexical Semantics. Cambridge University Press. 1986.
4. Cruse, D. A. Meaning in Language (3rd ed.). Oxford University Press. 2011.
5. Djumabayeva J., Graduonymy and other semantic categories in Uzbek and English. Journal of Linguistic Studies, 25(3), – 45-58p. 2018.

[31] Cruse, D. A. Lexical Semantics. Cambridge University Press. 1986.

6. Duden. Die Grammatik. Mannheim: Dudenverlag. 2007.
7. Eshmuminov A., Tilshunoslikda meronimiya hodisasi tadqiqi // Maqola, 15(4), – 134-148b. 2022.
8. Kilichev B. O‘zbek tilida partonimiya: f.f.n. diss. avtoref. –T., 1997. – 22 b.
9. Lyons, J. Introduction to theoretical linguistics. Cambridge University Press. 1968.
10. Lyons, J. Semantics. Cambridge University Press. 1977.
11. Miller, G. A. WordNet: An Electronic Lexical Database. Princeton University. 1990.
12. Mustafoyeva S., Semantic and stylistic characteristics of meronymy in English and Uzbek. Linguistic Studies in the East, 12(2), – 123-135p. 2016.
13. Oswald Werner. The Synthetic Informant Model: On the Simulation of Large Lexical/Semantic Fields, in M. D. Loflin and J. Silverberg, Discourse and Inference in Cognitive Anthropology: An Approach to Psychic Unity and Enculturation, Mouton, pages 45–82. 1978.
14. Winston, M., Chaffin, R., and Herrmann, D. A taxonomy of part-whole relations. Cognitive Science, 11(4), 417-444. 1987.
15. Апресян, Ю. Д. Лексическая семантика: Синонимические средства языка. - Москва: Наука, 1974..
16. Кубрякова, Е. С. Язык и знание. На пути получения знаний о языке: Части речи с когнитивной точки зрения. Роль языка в познании мира. - Москва: Языки славянской культуры, 2004.